

# **Validation of the Orange County California Probation Department Risk Assessment Instrument**

**Final Report to Orange County California  
Probation Department Executive  
Management Team**

**November 18, 2011**

**Michael Eisenberg, Research Manager**



# CSG Justice Center

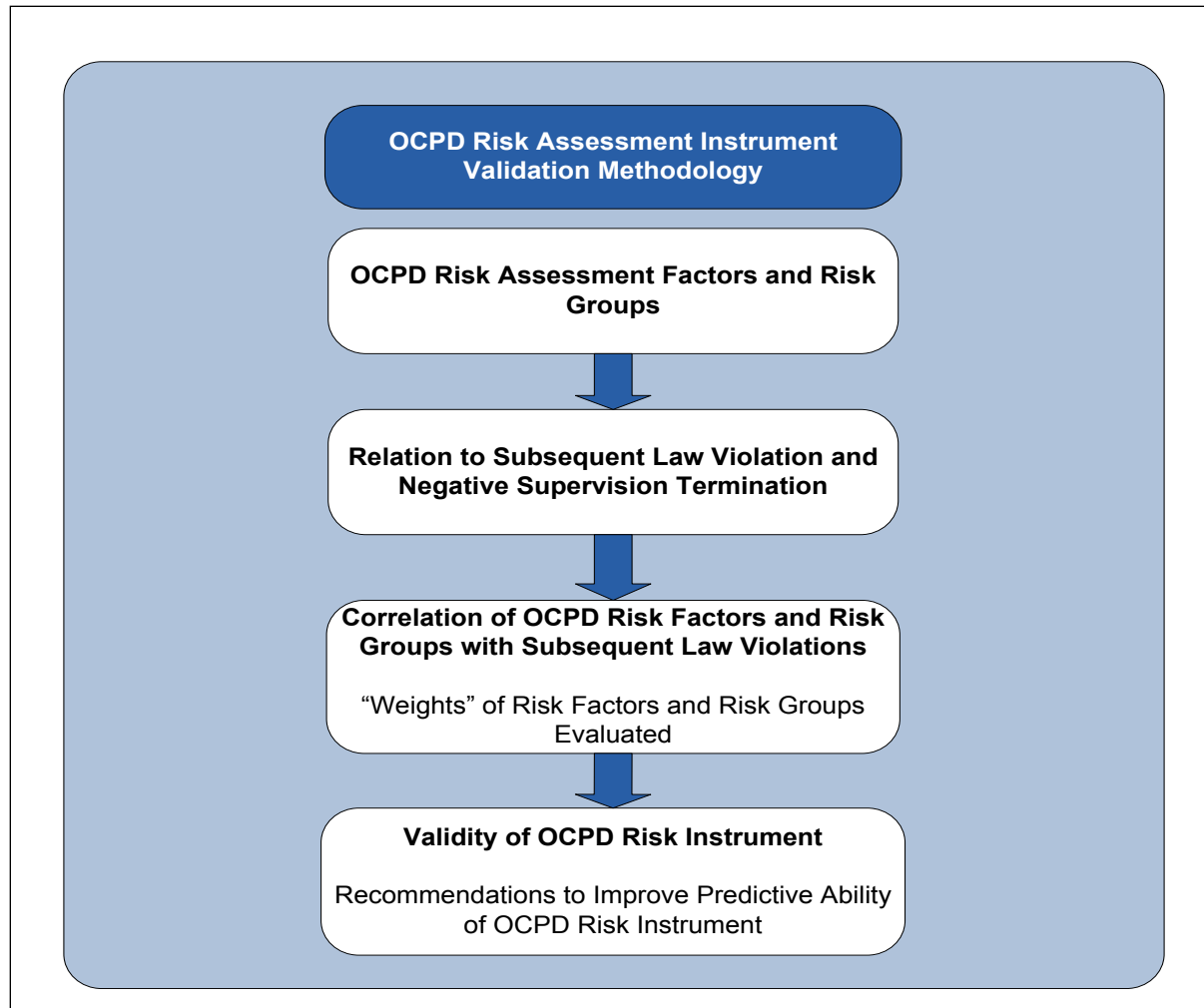
- **National non-profit, non-partisan membership association of state government officials**
- **Represents all three branches of state government**
- **Justice Center provides practical, nonpartisan advice informed by the best available evidence**

**Criminal Justice /  
Mental Health  
Consensus Project**

**Reentry Policy  
Council**

**Justice  
Reinvestment**

# 4,875 Probationers Placed on Supervision in 2007 Tracked for 3 Years



# Risk Factors by Subsequent Law Violation Within 36 Months

	No Violation	Subsequent Violation in 36 Months
<b>Number of address changes in last 12 months</b>		
None	940 60.3%	618 39.7%
One	784 59.5%	533 40.5%
Two or more	1,101 55.0%	899 45.0%
Total	2,825 57.9%	2,050 42.1%
<b>Total time employed in the last 12 months</b>		
7 months or more or n/a	793 67.9%	375 32.1%
5 to 7 months	339 58.4%	241 41.6%
Less than 5 months	1,693 54.1%	1,434 45.9%
<b>Alcohol usage problems-past 12 months</b>		
No interference with functioning	823 62.2%	500 37.8%
Occasional abuse (some disruption)	1,063 55.1%	865 44.9%
Frequent abuse (serious disruption)	939 57.8%	685 42.2%
<b>Drug usage problems-past 12 months</b>		
No interference with functioning	800 75.0%	267 25.0%
Occasional abuse (some disruption)	442 57.5%	327 42.5%
Frequent abuse (serious disruption)	1,576 52.0%	1,455 48.0%

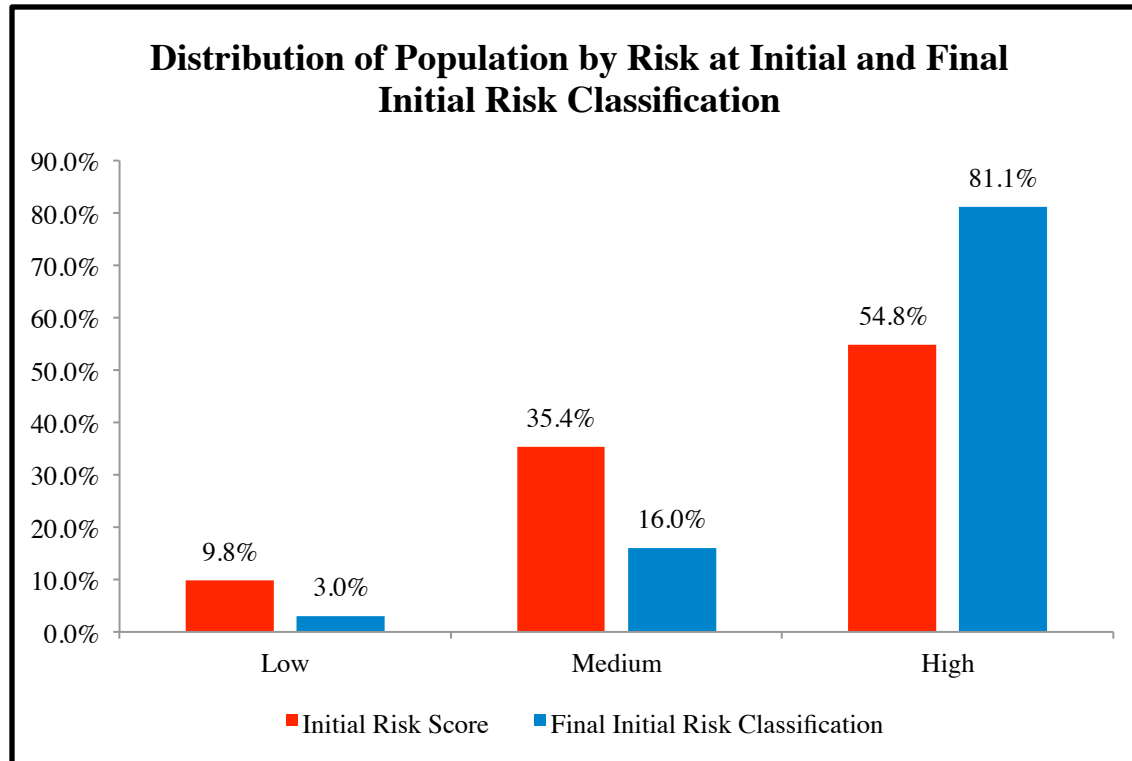
# Correlation of Risk Factors to Subsequent Law Violations

Risk Factor	Pearson Correlation
Number of address changes in last 12 months	.043**
Total time employed in the last 12 months	.115**
Alcohol usage problems-past 12 months	.031*
Drug usage problems-past 12 months	.182**
Number of prior felony convictions	.141**
Age at first conviction or juvenile adjudication	.176**
Convictions or adjudications, past or present	.039**
Prior probation violations-adult or juvenile	.193**
Attitude	.071**
Number of prior periods of probation supervision	.166**
Total Initial Risk Score	.245**
**. Correlation is significant at the 0.01 level (2-tailed).	
*. Correlation is significant at the 0.05 level (2-tailed).	

# Factors Meriting Re-Examination

Factor	Percent Law Violations		
Little Difference in Outcomes by Category			
Number of Address Changes	No Address Change	=	39.7%
	One Address Change	=	40.5%
Attitude	Lacking Motivation	=	43.7%
	Not Motivated	=	47.6%
Time Employed	5-7 Months	=	41.6%
	Less than 5 Months	=	45.9%
Factor Does Not Discriminate Accurately			
Alcohol Usage	Occasional Abuse	=	44.9%
	Frequent Abuse	=	42.2%
Convictions for Burglary, Auto Theft or Worthless Checks	Burglary	=	50.3%
	Worthless Check	=	42.5%

# Final Initial Risk Classification Results in Little Differentiation of Probationers by Risk: 81% High Risk



# Revised Risk Screen Factors

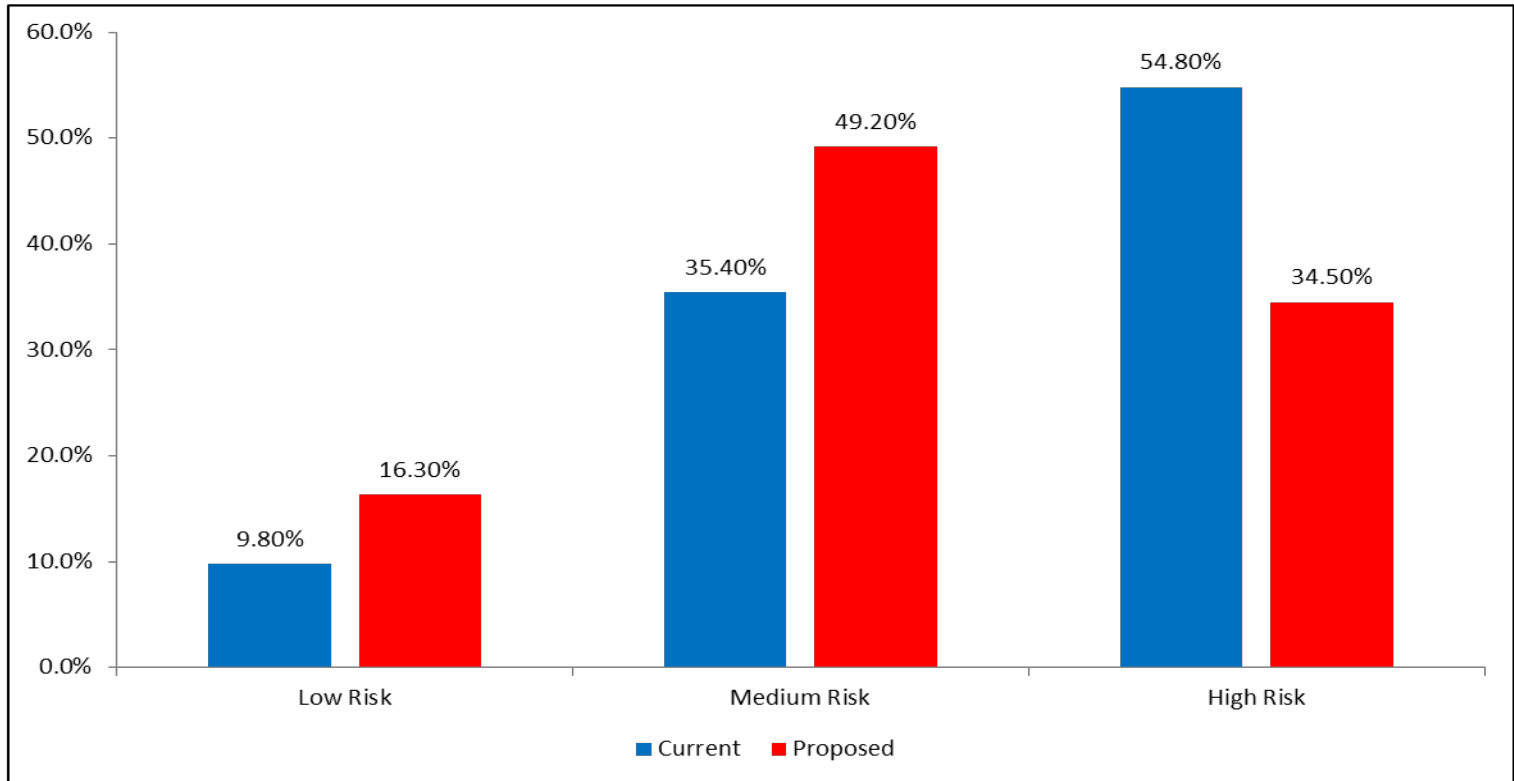
<b>Address Changes</b>	<b>Score</b>	<b>Subsequent Violation in 36 Months</b>
None or One	0	40.00%
Two or more	1	45.00%
<b>Time Employed</b>		
7 months or more	0	32.10%
5 to 7 months	1	41.60%
Less than 5 months	2	45.90%
<b>Drug usage</b>		
No interference	0	25.00%
Occasional abuse	2	42.50%
Frequent abuse	4	48.00%
<b>Prior Felony Convictions</b>		
None	0	36.30%
One	2	45.90%
Two or more	4	52.60%
<b>Age at first conviction</b>		
24 or older	0	32.90%
20 to 23	2	40.90%
19 or younger	4	52.60%



## Revised Risk Screen Factors (cont.2)

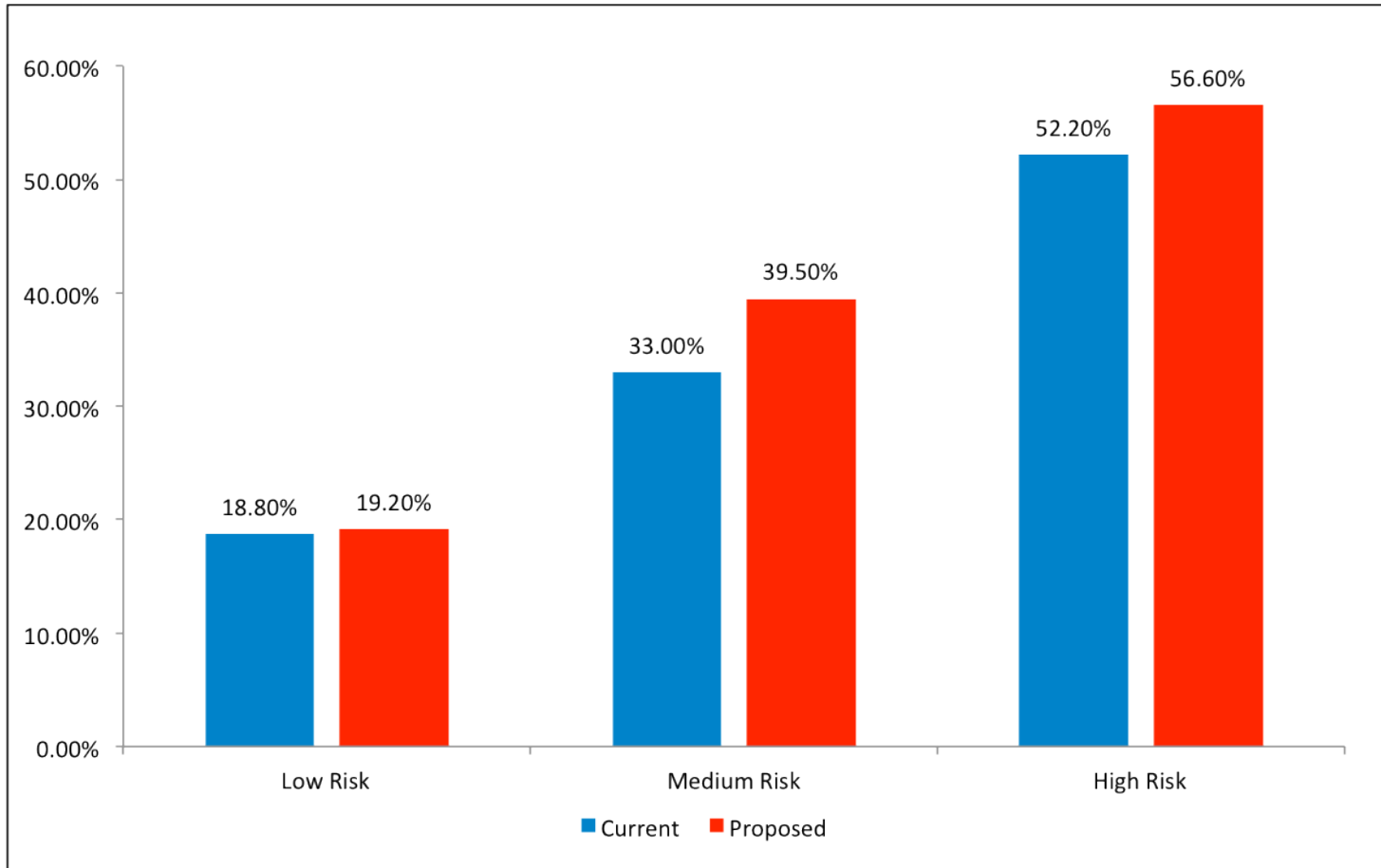
Address Changes	Score	Subsequent Violation in 36 Months
<b>Prior probation violations</b>		
None	0	32.10%
One or more	2	51.10%
<b>Attitude</b>		
Motivated to change	0	38.00%
Lacking in motivation	1	43.70%
Negative	2	47.60%
<b>Prior periods of supervision</b>		
None	0	33.50%
One or more	4	49.90%
<b>Offense type</b>		
Not Property or Drug	0	31.80%
Property or Drug	2	46.70%
<b>Age at Assessment</b>		
Over 40	0	33.40%
25.1 to 40	2	41.00%
25 or less	4	49.00%

# Distribution of Risk Groups: Current and Proposed



Risk Level	Current Score	Proposed Score
Low	0-7	0-8
Medium	8-18	9-20
High	19 or greater	21 or greater

# Percent Subsequent Law Violation: Current and Proposed Risk Score



# Change in Predictive Accuracy

“R”

Model	Model Summary	
	R	R Square
Current Risk Factors	0.274	0.075
Proposed Risk Factors	0.288	0.083

“AUC”

Test Result Variable(s)	Area	Std. Error
Risk Score	.642	.008
Revised Risk Score	.659	.008

R: Pearson correlation  
 AUC: Area under Curve

# Subsequent Law Violations Involving Victims or Potential Victims

- **OCPD management staff reviewed subsequent law violations of this sample to assess the violations for harm or potential harm to victims. Each subsequent law violation was reviewed to determine if the subsequent law violation could be categorized as involving:**
  - ✓ Victim or potential victim
  - ✓ Violent offense
  - ✓ Drug sales
  - ✓ Weapon involved in offense

# Victim Probability Predictor Factors

Weight		No Victim	Victim
<b>Age at First Conviction</b>			
0	24 or older	79.0%	<b>21.0%</b>
2	20-23.9	71.8%	<b>28.2%</b>
4	19 or younger	64.6%	<b>35.4%</b>
<b>Number of Prior Probation Periods</b>			
0	None	74.3%	<b>25.7%</b>
4	One or more	69.8%	<b>30.2%</b>
<b>Attitude</b>			
0	Motivated to change	74.6%	<b>25.4%</b>
1	Lacking in Motivation	70.7%	<b>29.3%</b>
2	Negative	69.0%	<b>31.0%</b>
<b>Companions</b>			
0	Good support and influence	78.8%	<b>21.2%</b>
2	Association with occasional negative	72.4%	<b>27.6%</b>
4	Association almost completely negative	68.8%	<b>31.2%</b>
<b>Offense Type</b>			
0	Not Property	73.8%	<b>26.2%</b>
4	Property offense	62.7%	<b>37.3%</b>
<b>Total</b>		<b>72.0%</b>	<b>28.0%</b>

# Victim Probability Risk Groups: Percent Subsequent Law Violation Involving Victims

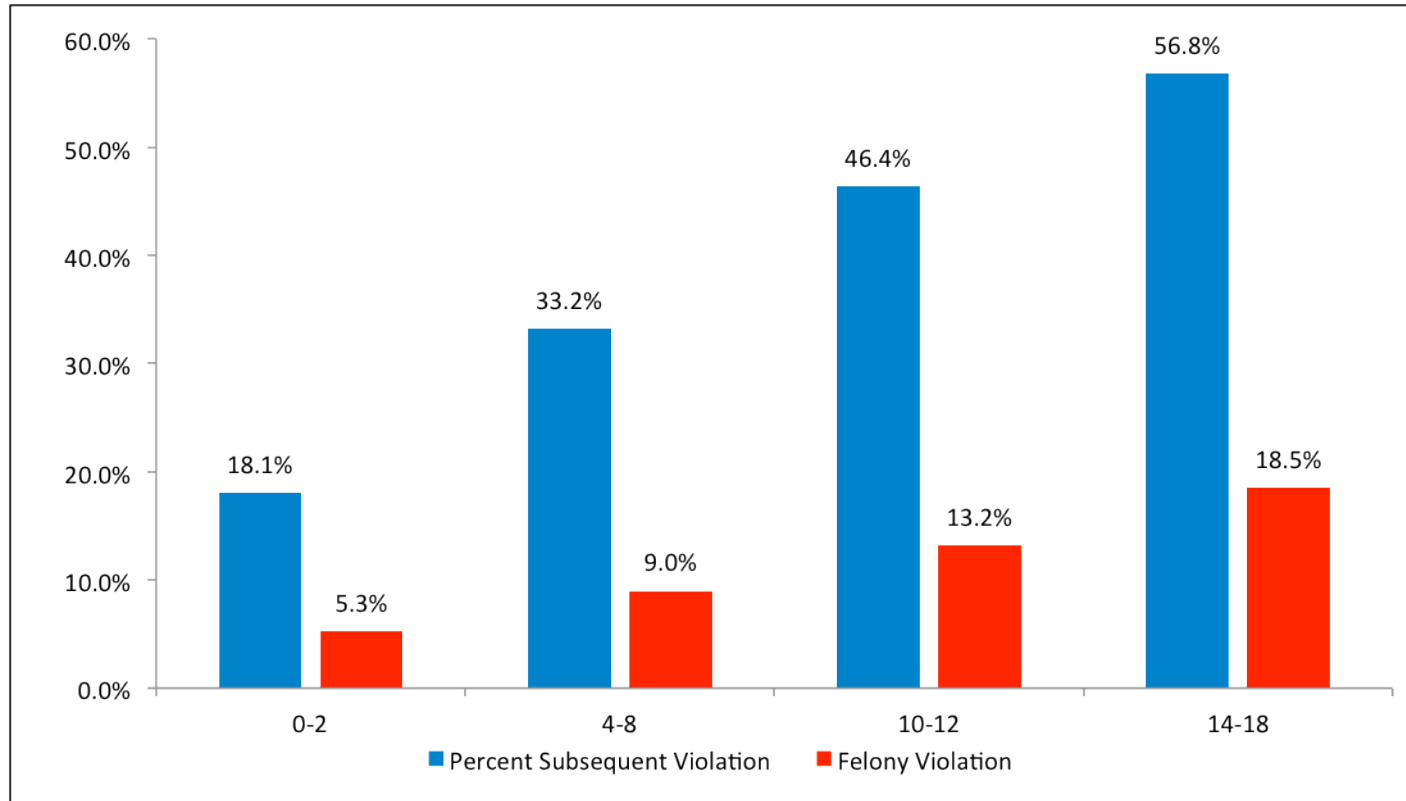
	No Victim		Victim	
<b>Low (0-2)</b>	499	84.0%	95	<b>16.0%</b>
<b>Medium (3-10)</b>	2,086	73.9%	736	<b>26.1%</b>
<b>High (11-18)</b>	910	63.1%	532	<b>36.9%</b>
<b>Total</b>	3,495	71.9%	1,363	<b>28.1%</b>

# Brief Risk Screen Factors: Weights and Distribution

Weight		Frequency	Percent
<b>Prior Probation Violations</b>			
0	None	2,319	47.6
4	One or more	2,555	52.4
<b>Age at First Conviction</b>			
0	24 or older	1,954	40.1
2	20-23.9	1,086	22.3
4	19 or younger	1,834	37.6
<b>Number of Prior Probation Periods</b>			
0	None	2,316	47.5
4	One or more	2,548	52.3
<b>Age at Assessment</b>			
0	40 and older	1,179	24.2
2	25 to 39.9	1,935	39.7
4	Less than 25	1,761	36.1
<b>Offense Type</b>			
0	Not property or drug offense	1,520	31.2
2	Property or drug offense	3,355	68.8



# Brief Risk Screen: Subsequent Law Violations by Risk Group



# Recommendations

**1. Implement revisions to OCPD risk instrument.**

- a. Use new weights for selected factors.
- b. Add “Age at Assessment” as a new factor and revised Offense Group risk factor.
- c. Implement new cut-off scores to reflect new weighting and new factors.
- d. Revise data entry and database protocols to reflect revised risk instrument.

**2. Review and revise override criteria and policies to reflect actual risk of reoffending. Committee to review and recommend policies for overrides incorporating risk of recidivism and risk of harm in determining use of override.**

- a. The research literature suggests that overrides should not exceed approximately 15% of new cases or the risk instrument will be compromised.

**3. Conduct pilot test of new instrument.**

- a. Create a committee to oversee pilot test implementation.
- b. Establish new training protocols for revised risk instrument recommended here.
- c. Conduct inter-rater and intra-rater reliability testing to assure accuracy of scoring.
- d. Conduct an independent evaluation of pilot test to assess implementation issues before adoption.
- e. Reprogram data entry system.

**4. Plan implementation of Brief Risk Screen.**

- a. Develop protocols and policies for use of Brief Risk Screen to include data entry, overrides, supervision procedures and reassessments.
- b. Monitor implementation and evaluate impact of Brief Risk screen from workload and effectiveness perspective.

**5. Evaluate change in workload requirements associated with revised risk assessment score and classification.**