



# Multnomah County Oregon

## Detention Risk Assessment Instrument Validation

### **Presentation Overview**

- What the Validation was to Accomplish
- Definitions
- Four Validation Phases:
  - Phase One: Test Each Item and Sets of Items for Predictive Power and Disparate Impact
  - Phase Two: Set Item Scores and Cut Points
  - Phase Three: Test the Impact of the New RAI on Detention Decisions
  - Phase Four: Revise Decision Policy for Special Circumstances



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### ■ **What the Validation Was To Accomplish:**

- Find out which combination of assessment items has the most predictive power related to recidivism and failure to appear.
- Minimize disparate impacts for racial/ethnic and gender groups.
- Understand the impacts of the new assessment on detention and detention alternative populations.
- Find a way to use the best predictive science and address the gravity of a youth's current behavior.



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### ■ **Definitions:**

- Hazard Analysis: Use Time To Failure to measure outcomes. Longer time to failure is better.
- Failure: New criminal referral or failure to appear for court any time between release and court disposition.



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- **Phase One – Test Each Assessment Item and Sets of Items For:**
  - Predictive power related to recidivism and failure to appear for court;
  - Statistical Significance;
  - Disparate impact on racial/ethnic and gender groups.



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### Samples of Assessment Item Tests:

- **Instant Offense:** Statistically significant for all groups but *predicts in the wrong direction for all groups* – with every one-point increase in this score, failure goes down 10%.
- **Legal Status:** Statistically significant for all but Hispanic youth, but predicts in the right direction for all groups – with every one-point increase in the score for this item, failure goes up 36%.



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### Tests of Sets of Assessment Items:

- **Original RAI:** With every one-point increase in the score, failure increases 31%. Twenty-one items.
- **Recommended RAI:** Statistically significant and even across all groups – with every one-point increase in the score, failure increases 49%. Six Items.



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- **Phase Two – Scores and Cut Points:**
  - Assign scores based on the predictive power of each item;
  - Re-score all cases with the new assessment and set new cut points based on time to failure.



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### Assessment Item Scores:

<b>Legal Status</b>	
Currently Under Supervision	0 – 2
Most Serious Pending Offense	0 – 17
<b>Mitigating Factors</b>	
School/Employed	-3
First Referral Age 16+	-3
Instant Offense is First Referral	-3
<b>Aggravating Factor</b>	
Runaway—Home and Placement	3



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### Decision Cut Points – Days To Failure

	Original RAI	New RAI
<b>Unconditional Release</b>	<b>142 Days</b> (6 points or less)	<b>171 Days</b> (less than 0 points)
<b>Conditional Release</b>	<b>75 Days</b> (7 to 11 points)	<b>92 Days</b> (0 to 5 points)
<b>Detain</b>	<b>97 Days</b> (12 points or more)	<b>55 Days</b> (6 points or more)



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- **Phase Three – Test the Impact:**  
Examine changes in detention and alternative populations when new RAI is applied to all cases in the study.



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### Decision Results – Original RAI vs. New RAI

	Original RAI		New RAI	
<b>Unconditional Release</b>	1,868	47%	1,052	27%
<b>Conditional Release</b>	1,081	27%	2,296	58%
<b>Detain</b>	996	25%	597	15%
<b>Total</b>	3,945	100%	3,945	100%



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- **Phase Four – Reach Consensus with the Partners on a Revised Decision Policy:**
  - Define special circumstances when a decision will be automatic, regardless of the RAI score;
  - Define acceptable reasons when the RAI score can be overridden;
  - Plan to monitor policy compliance.



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**End**

On Next Slides:

- Information on Full Reports
- Multnomah County Contacts



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### Full Report:

### *Validating Multnomah County's Juvenile Detention Risk Assessment Instrument*

Prepared for the Multnomah County Department of Community Justice  
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### Full Report:

### *Detention Risk Assessment Instrument Override Policy Test*

April 2007

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