

Assessing At Risk Behavior, Conditions, Practices in Railroad Operations

TRB Presentation

January 9, 2000

Agenda

- **Introduction**
- **Research Approach**

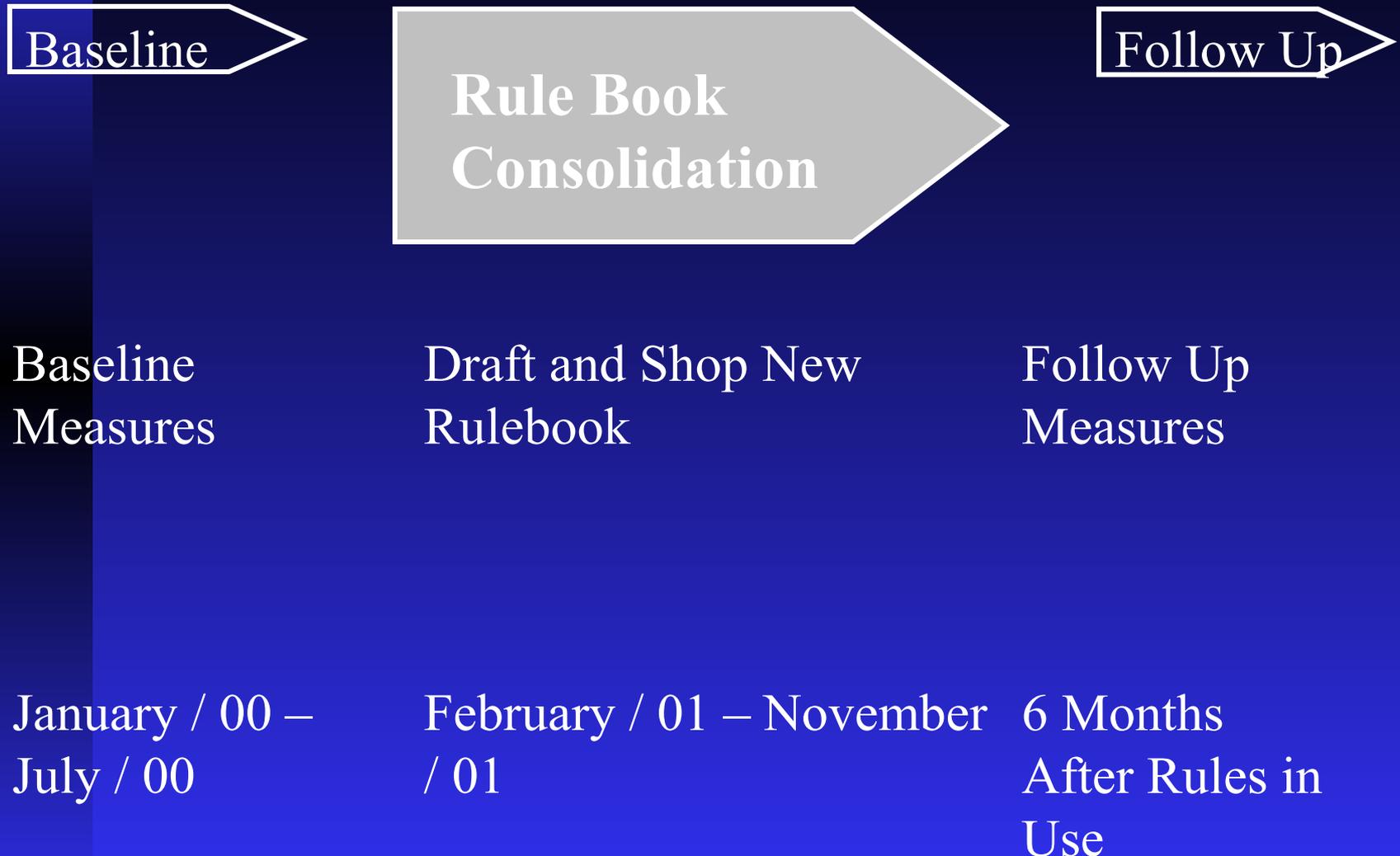
Amtrak – FRA Cooperative Agreement

- **Consolidate rulebooks**
- **Improve safety climate**
- **Identify measurable safety-related behaviors**
- **Identify organizational and work condition barriers**
- **Document**
- **Initiate cooperative safety process: FRA, Amtrak management and labor**

Overall Approach

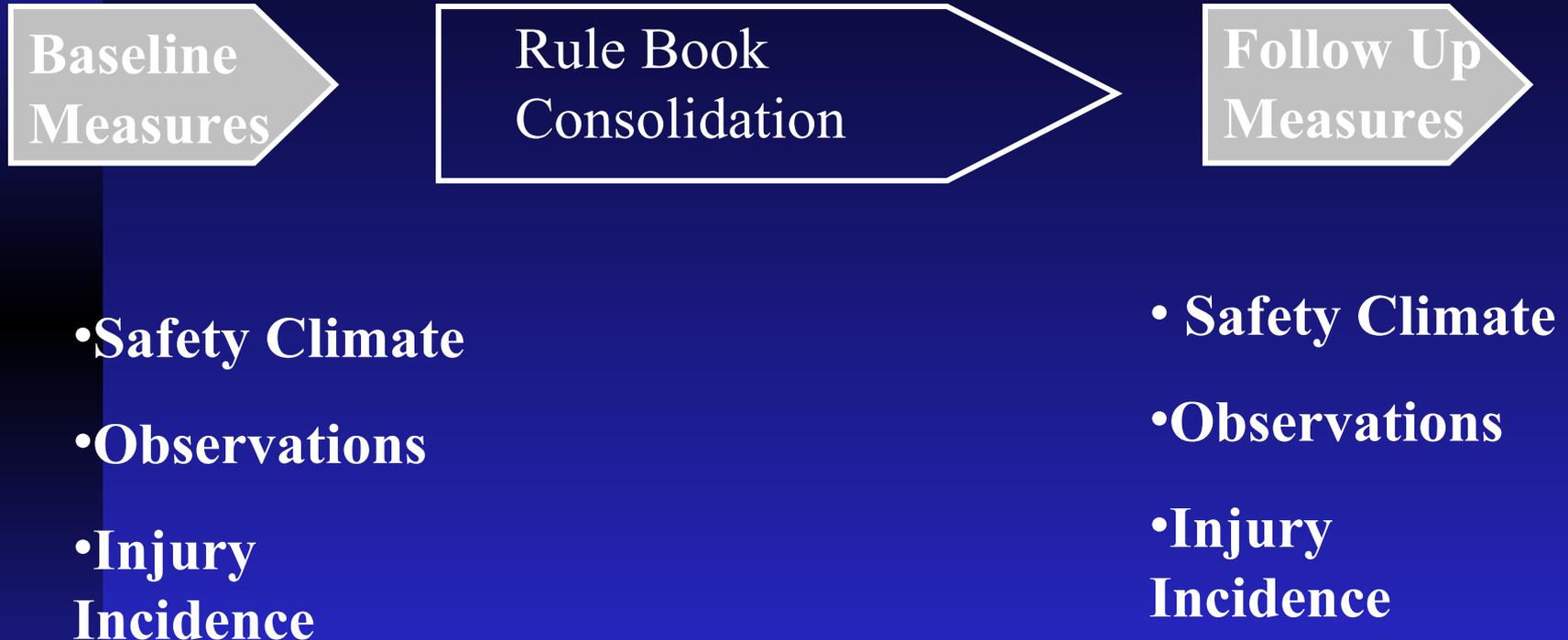
- **Research Team**
 - ◆ **FRA, Volpe National Transportation Systems Center, Behavioral Science Technology Inc.**
- **Research Site: Amtrak**
- **Rulebook Consolidation Contractor**
- **Safer Amtrak From Effective Teams (SAFE-T)**

Research Schedule



Research Approach

Behavior Based Safety Measures Used in Baseline & Follow Up



Perception Survey*

- **Organizational Value for Safety**
- **Individual Responsibility**
- **Upward Communication**
- **Comfort Reporting**
- **Group Process**

* Behavioral Science Technology Protected Proprietary Survey

Observations

- **Departments prone to injury**
- **35 – 50 per department**
- **Conducted by labor and management**
- **Conducted confidentially**

Categories of Percent Safe

Category	Percent Safe
1. Body Use and Position	
2. Tools and Equipment	
3. Procedures	
4. Personal Protective Equipment	
5. Environment	

Injury Rates

- **Frequency charts exist**
- **Exposure measure important**
- **Control charts plot random variation**
- **Control charts useful for trend data**

What Will be Achieved by Research

- **Rulebook consolidation evaluated**
- **Industry observation check list developed**
- **Documentation**
- **Behavior Based Safety measures validated for industry**
- **Launch pad for cooperation**