

JCP Distresses in PMIS

Sources

- PMIS Rater's Manual 2010
- TxDOT Research Report 1989-1: *PMIS Concepts, Equations and Analysis Models*
- PMIS data tables from 1993 to 2010:
 - PMIS JCP Ratings
 - PMIS Data Collection Section
 - PMIS Scores Summaries

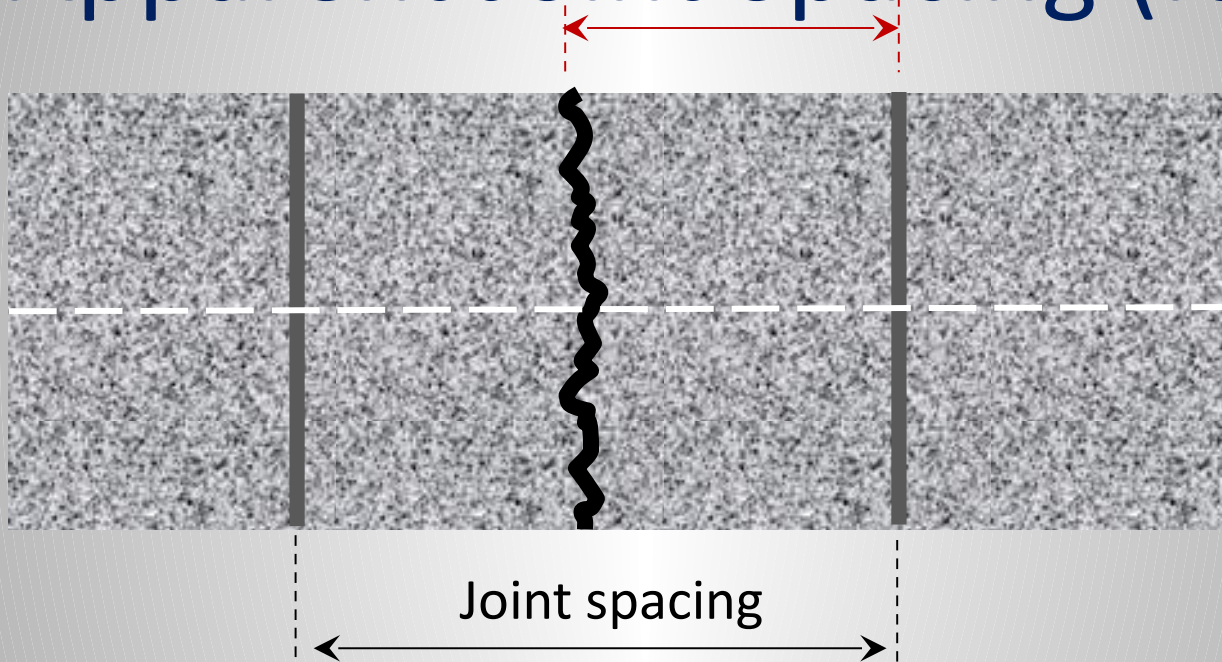
JCP Distresses in PMIS

Overview

JCP Distress Type	PMIS Rating	Computing L Value
Failed Joints and Cracks	total number (0 to 999)	L = percent of joints and cracks that are failed (see equation below this table)
Failures	total number (0 to 999)	L = number per mile (see equation below this table)
Shattered (Failed) Slabs	total number (0 to 999)	L = percent of slabs that are failed (see equation below this table)
Slabs With Longitudinal Cracks	total number (0 to 999)	L = percent of slabs that have longitudinal cracks (see equation below this table)
Concrete Patches	total number (0 to 999)	L = number per mile (see equation below this table)
Apparent Joint Spacing	spacing (15 to 75), to the nearest foot (0.1 m)	none

JCP Distresses in PMIS

Apparent Joint Spacing (ft)



Utilization in PMIS:

In calculations of distress levels L measured per slab

JCP Distresses in PMIS

Failed Joints and Cracks



Spalling = yes

Load transfer loss = no

JCP)

- Field rating (Rat)=# occurrences
- Distress level calculated as

$$L_i = 100 \frac{Rat}{5280 Len} \frac{AJS}{AJS}$$

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Longitudinal Cracks (LC)



- Field rating (Rat)=# occurrences
- Distress level calculated as

$$L_i = 100 \frac{Rat}{\frac{5280 Len}{AJS}}$$

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Shattered Slabs (S, SS)



Failures ≥ 5

or

failure larger than $\frac{1}{2}$ slab



- Field rating (Rat)=# occurrences
- Distress level calculated as

$$L_i = 100 \frac{Rat}{\frac{5280Len}{AJS}}$$

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Failures (F, FL)



- Field rating (Rat)=#occurrences
- Distress level calculated as: Rat/Len



JCP Distresses in PMIS

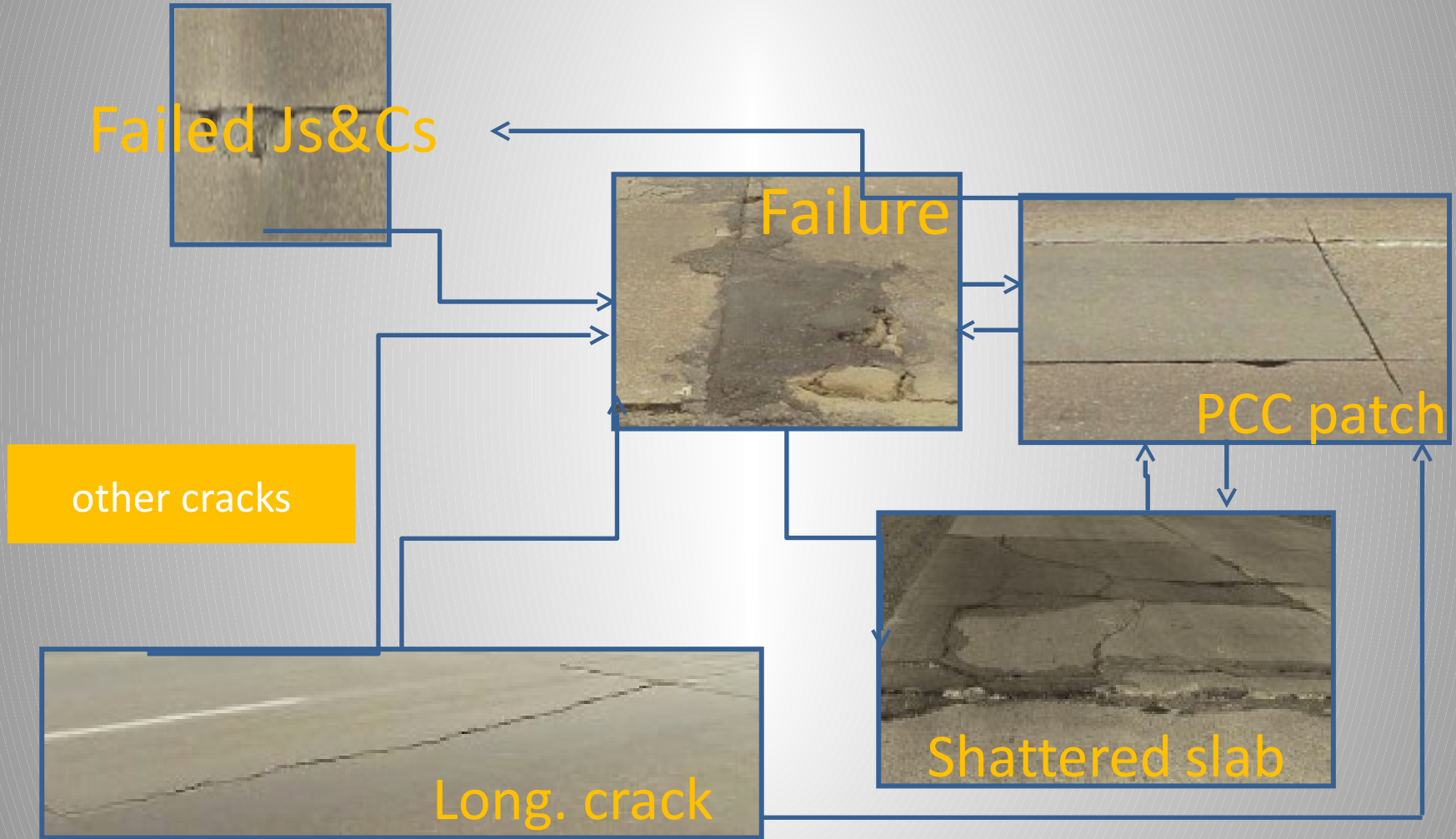
Concrete Patches (P, Pat)



- Field rating (Rat)=#occurrences
- Distress level calculated as: Rat / Len

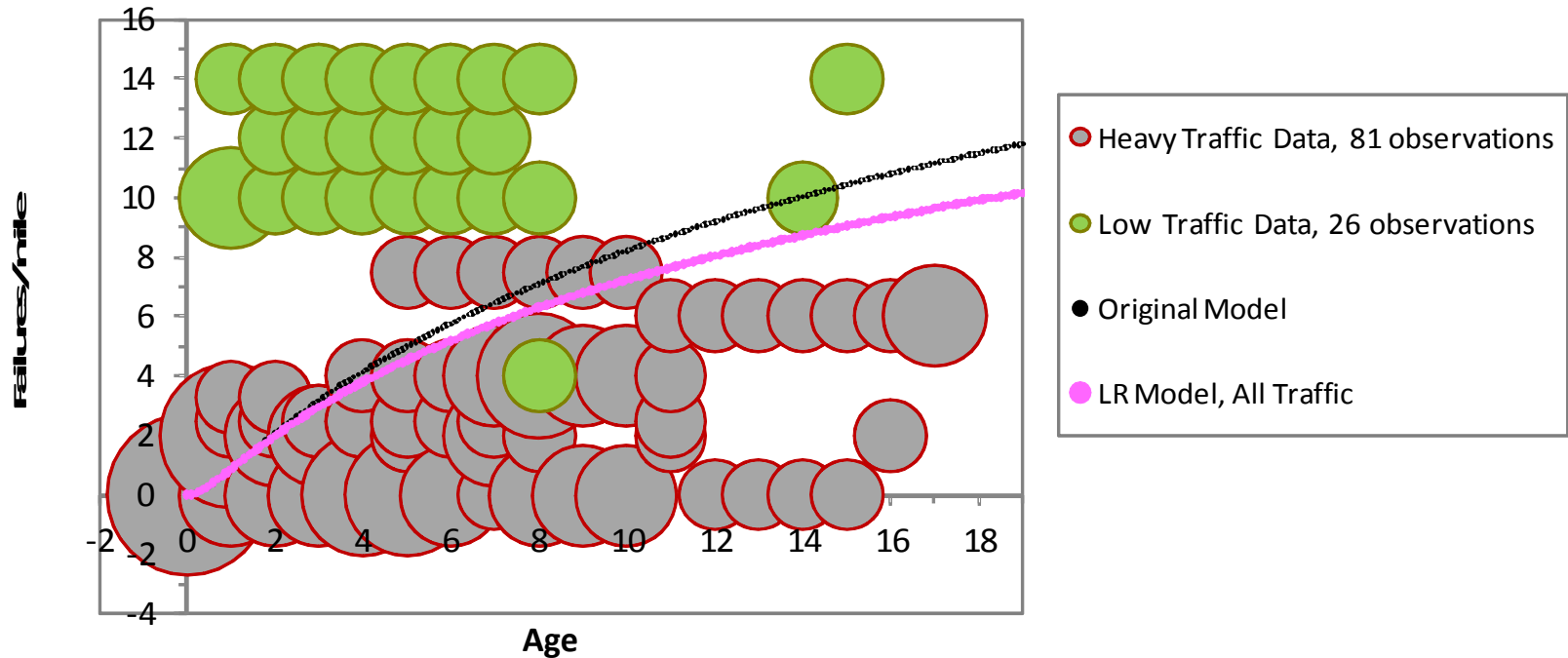


JCP Distresses Progression



Example of Non-Adherence to Order of Performance

Zone 3 Data



Example of Non-Adherence to Order of Performance

Zone 1 LR Data

