



City Pavement Data Collection

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Association

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Washington State
Department of Transportation

Highways & Local Programs



Problem Statement

- Comprehensive city pavement condition data recognized as the “missing link” by the legislature.
- Many smaller cities and towns were not collecting pavement condition data on their networks.



City Pavement Reporting

- Washington Legislature passed the Transportation Efficiencies bill in April 2003.
- RCW 46.68.113 requires cities to report the condition of their arterial network each biennium.
- 2003 - 2005 biennium required a minimum of 70% of the total network be reported with an additional 5% added each biennium. This biennium is 85%.



City Responsibilities

- Cities have certain maintenance responsibilities for non-limited access state highways within their jurisdiction (right-of-way, underground utilities, snow plowing, etc).
- Cities over 25,000 have additional responsibilities (signals).



Reporting Roadblock

- Cities over 25,000 generally have sufficient resources to meet the pavement reporting requirement.
- Many smaller cities and towns don't have the resources to meet the reporting requirement.
- 167 cities <5,000 - 81 cities <1,000



Condition Reporting

- Cities over 25,000 are asked to report arterial condition information each biennium, in the even years.
- To meet reporting goal of 85% (09- 11 biennium), most cities over 25,000 will need to report arterial condition.



Arterials Defined

- RCW 47.26.090 defines the arterial system to include “collectors”.
- Because of this the decision was made to collect data on federally classified “collector routes” as well as arterials.



Large City Data Requested

- Arterial and Collector routes in Excel spreadsheet.
- City, Route #, Sequence #, Route Name, From Location, To Location, Functional Class, Surface Type, Length, Width, # Lanes, Rating Score, Rating Date.



Data Collection Structure

- An agreement with WSDOT's Materials Laboratory to collect pavement data for cities under 25,000.
- Mats Lab utilizes their Pathways automated data collection van to survey the cities and collect pavement distress data and electronic video images.

Pathways Data Collection Van





Pavement Surveys

- Mats Lab will survey $\frac{1}{2}$ of the state's cities under 25,000 each year: East and West.
- The survey length is approximately 655 centerline miles per year.
- Large cities self-report during the even years.



Washington's City Structure

- 281 cities and towns have a combined federally functionally classified arterial and collector mileage of 3,996 miles.
- 39 cities have a population over 25,000 and represent 2,685 combined miles (67%).
- 242 cities and towns have a population under 25,000 and represent 1,311 combined miles (33%).



Evaluating Distress Data

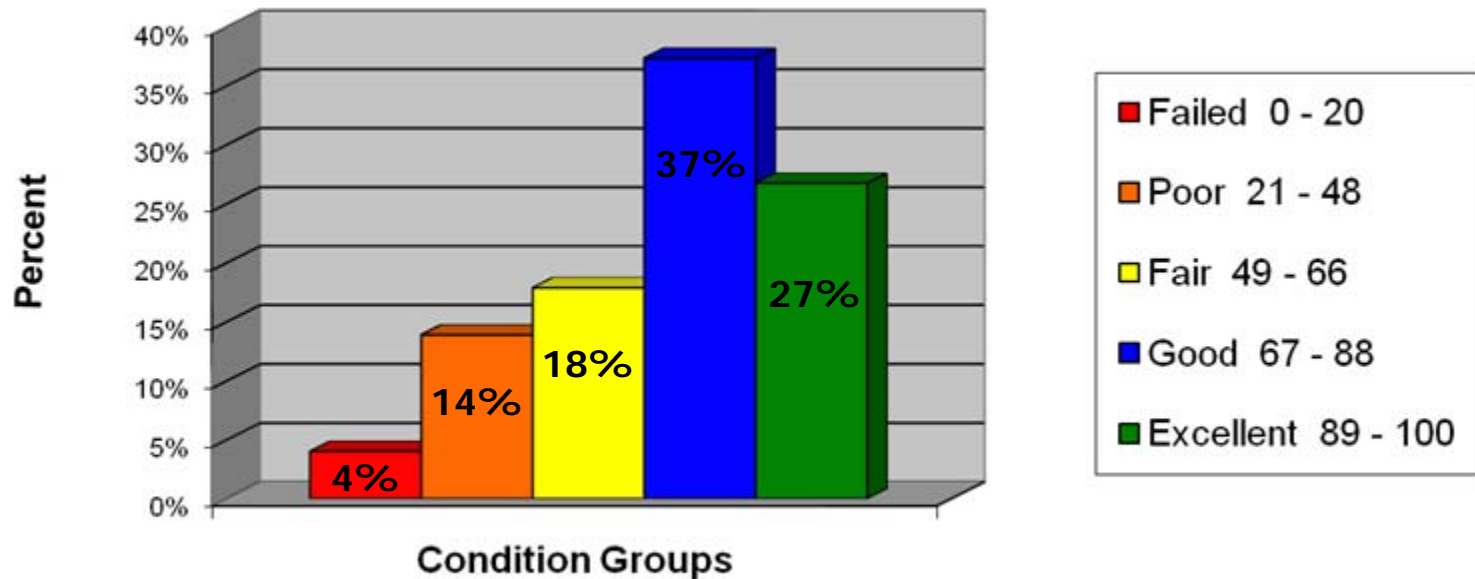
- In-house FileMaker database to evaluate pavement distress data and generate PCI scores.
- Based on ASTM D6433-09, *Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys* adapted to Washington Methodology (pavement rating manual).



2008 Survey Results

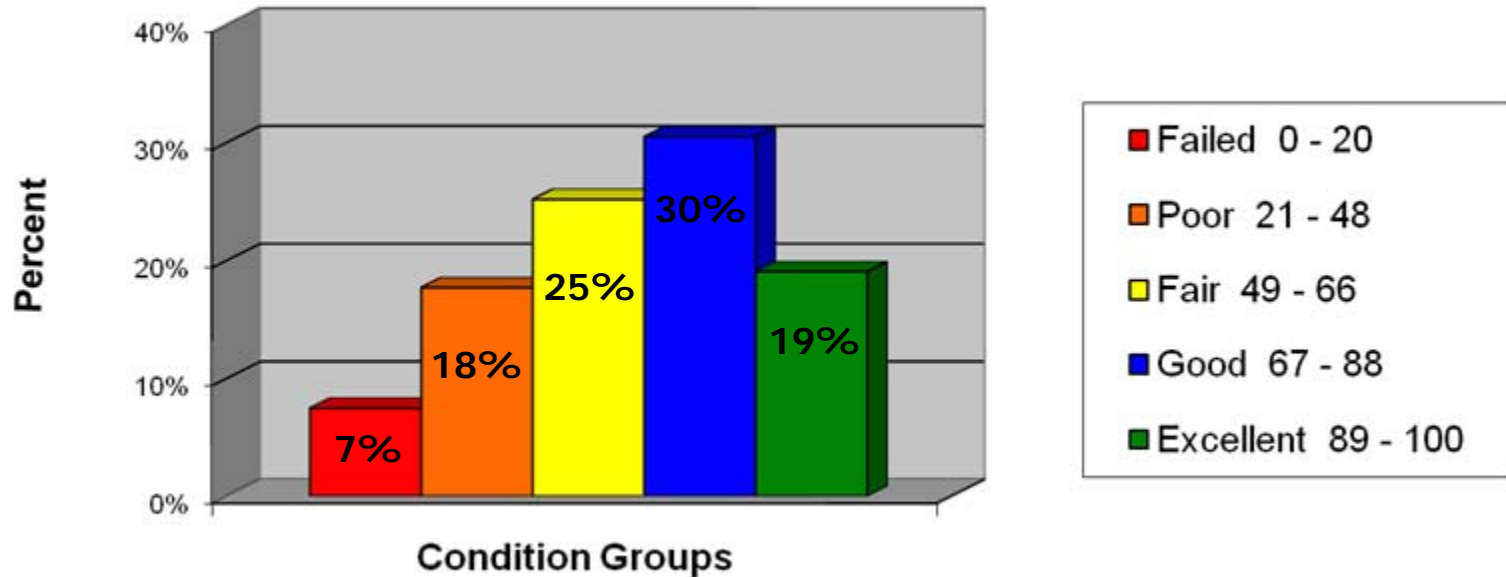
Funct Class	C/L Miles	PCI Ave
Arterials	1,794.56	70
Collectors	1,381.27	64
Totals	3,175.83	67

2008 Arterial Condition



Percent arterial network within condition groups
64% Good to Excellent

2008 Collector Condition



Percent collector network within condition groups
49% Good to Excellent



Ongoing Project Cost

- Data collection and processing costs average about \$150 per centerline mile to have Mats Lab shoot 4 sets of video images and determine type, extent, and severity of pavement distresses for each segment.



CityView Asset Manager

- In-house FileMaker viewer that plays the 4 sets of video imagery and displays pavement condition, IRI, and other asset information (signing, roadway, intersection, appurtenances) for each segment.
- Viewer is given to the small cities on DVD disk each biennium.



Questions or Comments

Bob Brooks

Technology Transfer Engineer

Highways & Local Programs, LTAP Center

360-705-7352

brookbo@wsdot.wa.gov