

# Pavement Management 2017 Data



**Regions 1 & 2: Roughness, Rutting, & Distress  
(Interstates and State Routes on the NHS)**

**Regions 3 and 4: Roughness, Rutting, & Distress  
(Interstates and all State Routes)**



**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE DIVISION**  
SUITE 400, JAMES K. POLK BUILDING  
505 DEADERICK STREET  
NASHVILLE, TENNESSEE 37243-1402  
(615) 741-2027

**JOHN C. SCHROER**  
COMMISSIONER

**BILL HASLAM**  
GOVERNOR

**April 15<sup>th</sup>, 2018**

Attached you will find the Tennessee Department of Transportation Pavement Management report for 2017. This information is tendered to assist TDOT personnel in determining the conditions of Tennessee's roadway network and to facilitate the decision making process in regards to the maintenance and preservation of the roads. Roadway condition data is collected annually, as follows:

- Regions 1 and 2: Smoothness (IRI), rut depth, and distress measurements are collected on all Interstate and State Routes in even numbered years. In odd numbered years, smoothness, rut depth, and distress are collected only on Interstates and State Routes on the National Highway System.
- Regions 3 and 4: Smoothness (IRI), rut depth, and distress measurements are collected on all Interstate and State Routes in odd numbered years. In even numbered years, smoothness, rut depth, and distress are collected only on Interstates and State Routes on the National Highway System.

The smoothness data is transposed into the Pavement Smoothness Index (PSI). The rutting and distress values are used to calculate the Pavement Distress Index (PDI). Together, these two indices yield the Pavement Quality Index (PQI), an overall indication of the health of the roadway. Interstate smoothness is also reported as an annual performance measure.

The raw data and various indices are reported in one-mile increments, for simplicity and ease of use, but our Pavement Management System is capable of reporting in increments as small as 0.1 mile. If you have any comments, questions, or suggestions concerning this report, please contact Mark Woods at (615) 532-3622.

Mark Woods  
TDOT Maintenance Division  
[Mark.woods@tn.gov](mailto:Mark.woods@tn.gov)

# Contents

Explanation of Terms.....	1
Conditional Information.....	2
1. Summary of Statewide Pavement Conditions.....	3
1.1 PQI Values and Conditions.....	3
1.2 Distribution of Pavement Condition Indices.....	4
1.2.1 Interstates .....	4
1.2.2 State Routes .....	5
2. Summary of Region 1 Pavement Condition Indices.....	6
2.1 Region 1 PQI Values and Conditions .....	7
2.1.1 PQI conditions for Region 1 Interstates.....	8
2.1.2 PQI conditions for Region 1 NHS State Routes .....	10
2.2 District PQI Values and Conditions in Region 1 .....	11
2.2.1 PQI conditions for Interstates .....	11
2.2.2 PQI conditions for NHS State Routes.....	12
3. Summary of Region 2 Pavement Condition Indices.....	13
3.1 Region 2 PQI Values and Conditions .....	14
3.1.1 PQI conditions for Region 2 Interstates.....	15
3.1.2 PQI conditions for Region 2 NHS State Routes .....	17
3.2 District PQI Values and Conditions in Region 2.....	18
3.2.1 PQI conditions for Interstates .....	18
3.2.3 PQI conditions for State Routes.....	19
4. Summary of Region 3 Pavement Condition Indices.....	20
4.1 Region 3 PQI Values and Conditions .....	21
4.1.1 PQI conditions for Region 3 Interstates.....	22
4.1.2 PQI conditions for Region 3 State Routes .....	24
4.2 District PQI Values and conditions in Region 3.....	26
4.2.1 PQI conditions for Interstates .....	26
4.2.2 PQI conditions for State Routes.....	27
5. Summary of Region 4 Pavement Condition Indices.....	28
5.1 Region 4 PQI Values and Conditions .....	29

5.1.1 PQI conditions for Region 4 Interstates.....	30
5.1.2 PQI conditions for Region 4 State Routes .....	32
5.2 District PQI Values and Conditions in Region 4.....	34
5.2.1 PQI conditions for Interstates .....	34
5.2.2 PQI conditions for State Routes.....	35

## Explanation of Terms

### IRI – International Roughness Index

- Measurement of the number of vertical deviations over a section of road.
- Measured in inches/mile
- Perfect is a “0”

### HC IRI – Half-Car IRI

- Half-Car IRI is used by TDOT’s profilers for construction acceptance testing. The standard method that is collected by our consultants is Quarter-Car IRI. Half-Car IRI values tend to be slightly better than Quarter-Car IRI values obtained from the same location.

### PSI – Pavement Smoothness Index

- Measure of the ROUGHNESS of the road on a scale of 0 – 5.
- Perfect is a “5”
- Roughness is defined as: “The deviations of a pavement surface from a true planar surface with characteristic dimensions that affect vehicle dynamics, ride quality, dynamic loads, and drainage; for example, longitudinal profile, transverse profile, and cross slope.”
- Relates to IRI through:  $PSI = 5 * e^{(-0.0055*IRI)}$

### PDI – Pavement Distress Index

- A measurement of the roadway DISTRESS on a scale from 0 – 5.
- Perfect is a “5”
- Distresses that are evaluated include the following: Fatigue, Rutting, Longitudinal Cracks In the Wheel Path, Patching, Block Cracking, Raveling, Transverse Cracks, Longitudinal Cracks (Non-Wheel Path), & Longitudinal Cracks In the Lane Joints.
- Each individual Distress mentioned above receives a DEDUCT VALUE based on the severity & number of distresses on a given stretch of road surface.
- All of the D.V.s are given a weight and subtracted from 5.

### PQI – Pavement Quality Index

- Overall Index of the roadway on a scale from 0 – 5.
- Perfect is a “5”
- $PQI = PDI^{0.7} * PSI^{0.3}$
- PDI encompasses the largest portion of this index because Pavement Distresses indicate current problems and future deterioration of the roadway surface.

## Conditional Information

The following chart represents the limits used to highlight pavement conditions. Pavement sections in fair and poor condition will be highlighted. Fair condition indicates that the pavement needs to be observed and monitored for further improvement. Poor condition indicates high-priority occurrences that may need to be addressed soon in order to preserve the soundness of the roadway.

		PSI	PDI	PQI
<b>Interstates</b>	<b>Fair</b>	$2.6 \leq \text{PSI} < 3$	$1.5 \leq \text{PDI} < 3.35$	$1.75 \leq \text{PQI} < 3.25$
	<b>Poor</b>	$\text{PSI} < 2.6$	$\text{PDI} < 1.5$	$\text{PQI} < 1.75$

		PSI	PDI	PQI
<b>State Routes</b>	<b>Fair</b>	$2.2 \leq \text{PSI} < 2.6$	$1.6 \leq \text{PDI} < 3.6$	$1.75 \leq \text{PQI} < 3.25$
	<b>Poor</b>	$\text{PSI} < 2.2$	$\text{PDI} < 1.6$	$\text{PQI} < 1.75$

Note:

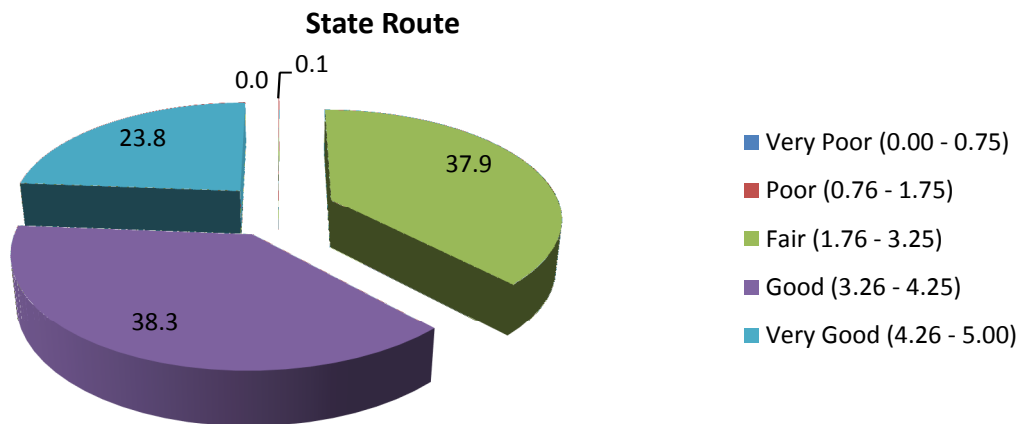
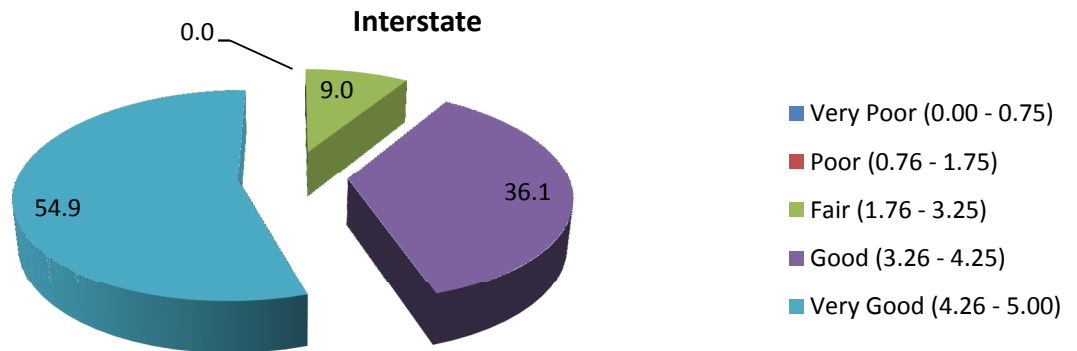
- 1) All conditions may not be captured due to the 1.0 mile reporting interval;
- 2) PSI, PDI, and PQI within the report will be highlighted as shown above.

# 1. Summary of Statewide Pavement Conditions

## 1.1 PQI Values and Conditions

2017 Interstates Average PQI of 4.140 for 2356 centerline miles	
Values	Percentage%
Very Poor (0.00 - 0.75)	0.0
Poor (0.76 - 1.75)	0.0
Fair (1.76 - 3.25)	9.0
Good (3.26 - 4.50)	36.1
Very Good (4.51 - 5.00)	54.9

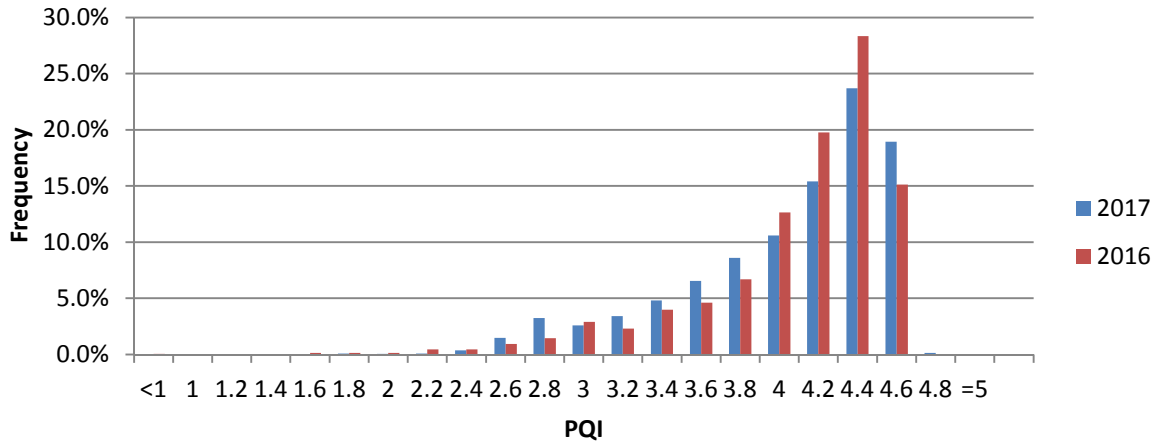
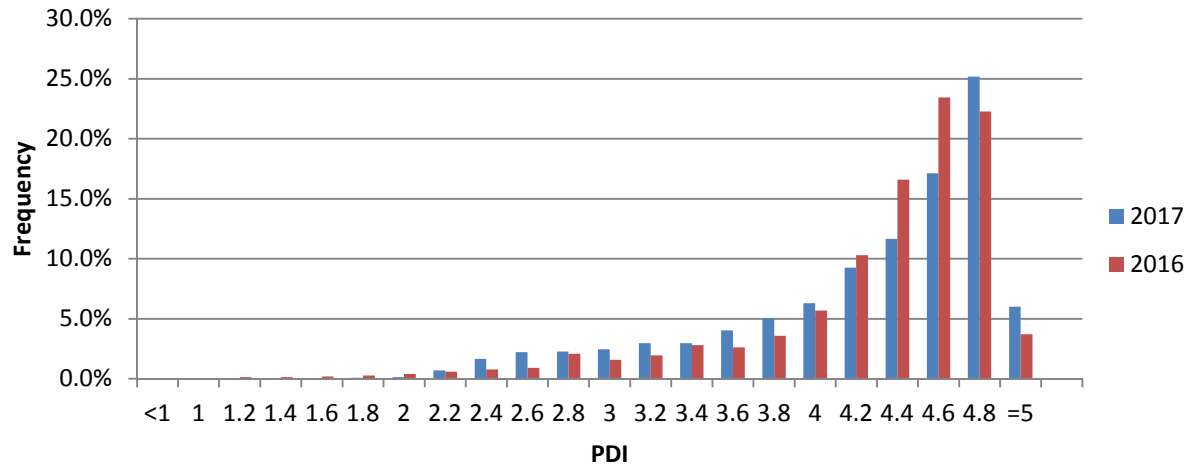
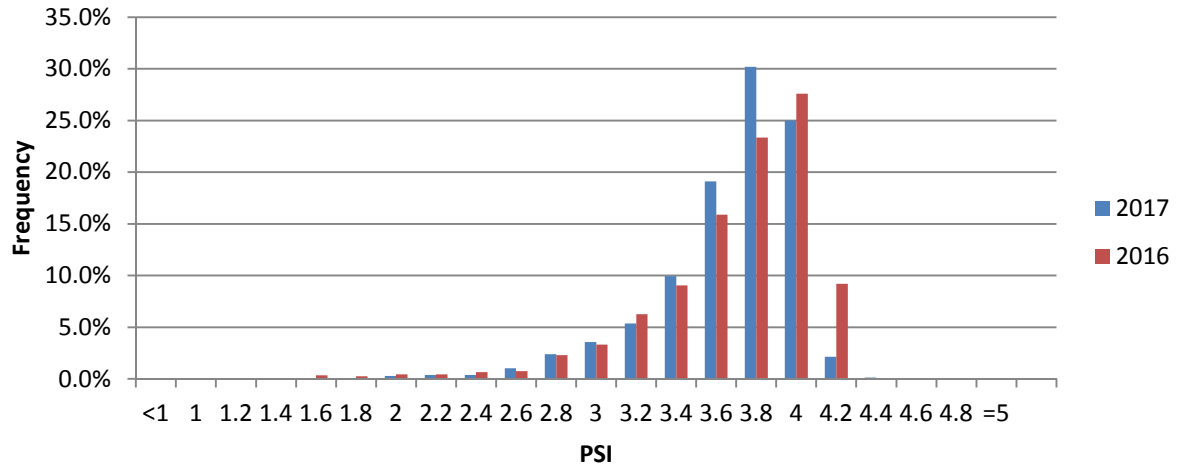
2017 State Routes* Average PQI of 3.553 for 8804 centerline miles	
Values	Percentage%
Very Poor (0.00 - 0.75)	0.0
Poor (0.76 - 1.75)	0.1
Fair (1.76 - 3.25)	37.9
Good (3.26 - 4.25)	38.3
Very Good (4.26 - 5.00)	23.8



\* - NHS routes only for Regions 1 & 2 (Odd year)

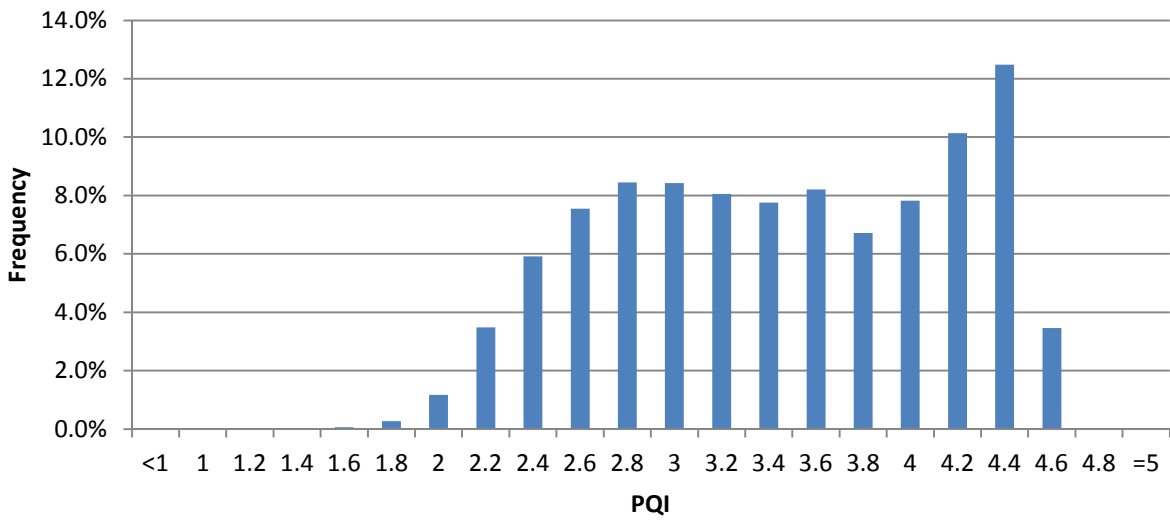
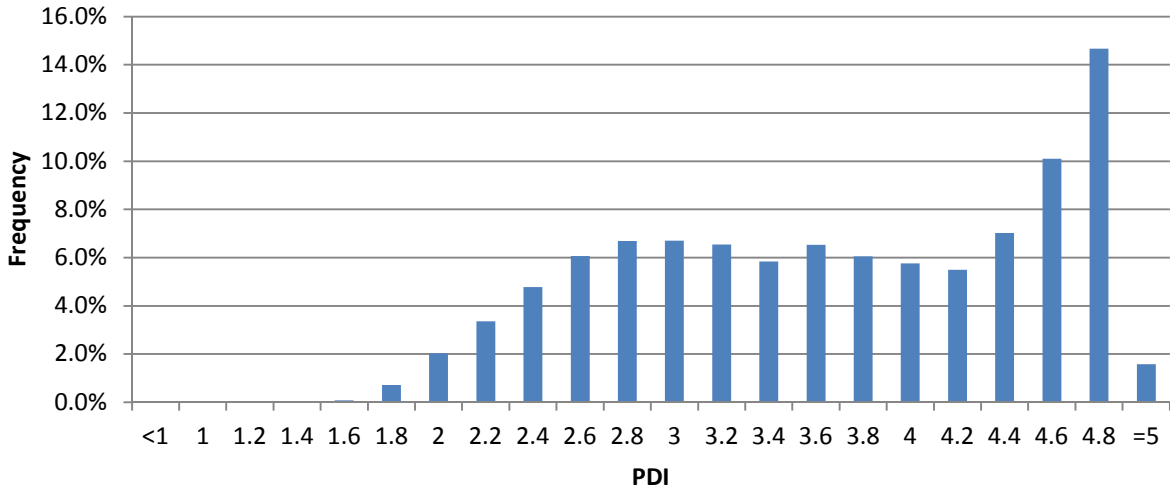
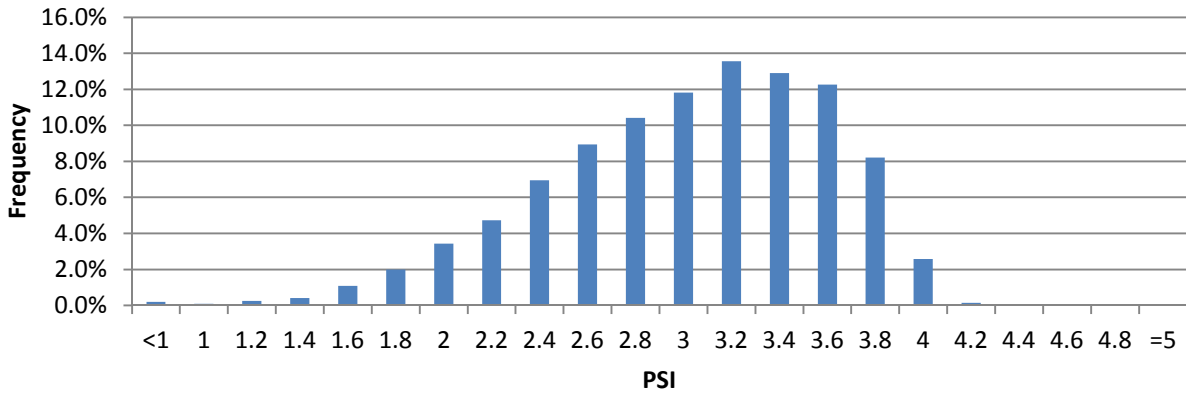
## 1.2 Distribution of Pavement Condition Indices

### 1.2.1 Interstates





## 1.2.2 State Routes



## 2. Summary of Region 1 Pavement Condition Indices

2017 Region 1 by District		Interstate				NHS State Route		
District	County	Average PSI	Average PDI	Average PQI	IRI<=94 in./mi.	Average PSI	Average PDI	Average PQI
17	10 CARTER	3.681	4.758	4.406	87.0%	3.489	4.237	3.986
17	30 GREENE	4.058	4.767	4.541	99.4%	3.700	4.129	3.976
17	32 HAMBLEN	4.114	4.737	4.539	99.0%	3.382	3.514	3.422
17	34 HANCOCK					3.518	4.827	4.385
17	37 HAWKINS					3.539	4.059	3.878
17	46 JOHNSON					3.390	4.848	4.352
17	82 SULLIVAN	3.870	4.271	4.143	98.1%	3.289	3.833	3.648
17	86 UNICOI	3.732	4.514	4.260	92.0%			
17	90 WASHINGTON	3.546	4.490	4.179	75.1%	3.533	4.416	4.124
<b>Average</b>		<b>3.854</b>	<b>4.537</b>	<b>4.316</b>	<b>93.4%</b>	<b>3.472</b>	<b>4.088</b>	<b>3.874</b>
18	1 ANDERSON	3.957	4.758	4.500	97.5%	3.283	3.603	3.490
18	15 COCKE	3.771	3.744	3.735	92.9%	3.355	4.502	4.112
18	29 GRAINGER					3.574	4.112	3.931
18	45 JEFFERSON	3.729	3.915	3.849	93.2%	3.506	4.774	4.348
18	47 KNOX	3.633	3.894	3.798	87.2%	3.212	4.126	3.812
18	78 SEVIER	3.925	4.075	4.024	95.8%	3.294	4.357	3.999
18	87 UNION					3.293	4.479	4.080
<b>Average</b>		<b>3.714</b>	<b>3.958</b>	<b>3.869</b>	<b>90.6%</b>	<b>3.312</b>	<b>4.202</b>	<b>3.898</b>
19	5 BLOUNT	3.324	3.164	3.197	74.4%	3.332	4.103	3.840
19	7 CAMPBELL	3.702	4.285	4.095	87.9%	3.517	3.536	3.508
19	13 CLAIBORNE					3.482	3.498	3.478
19	53 LOUDON	3.863	4.032	3.969	95.4%	3.248	3.915	3.686
19	62 MONROE	4.066	4.851	4.599	100.0%	3.466	4.220	3.966
19	65 MORGAN					3.331	3.918	3.718
19	73 ROANE	3.738	4.388	4.176	94.1%	3.622	4.223	4.018
19	76 SCOTT					3.306	3.085	3.139
<b>Average</b>		<b>3.773</b>	<b>4.256</b>	<b>4.096</b>	<b>92.2%</b>	<b>3.408</b>	<b>3.879</b>	<b>3.713</b>

All state routes in this table are on the NHS

## 2.1 Region 1 PQI Values and Conditions

<b>2017 Region 1 Interstates</b> <b>Average PQI of 4.085 for 690 centerline miles</b>	
Values	Percentage %
Very Poor (0.00 - 0.75)	0
Poor (0.76 - 1.75)	0
Fair (1.76 - 3.25)	11
Good (3.26 - 4.25)	38
Very Good (4.26 - 5.00)	51

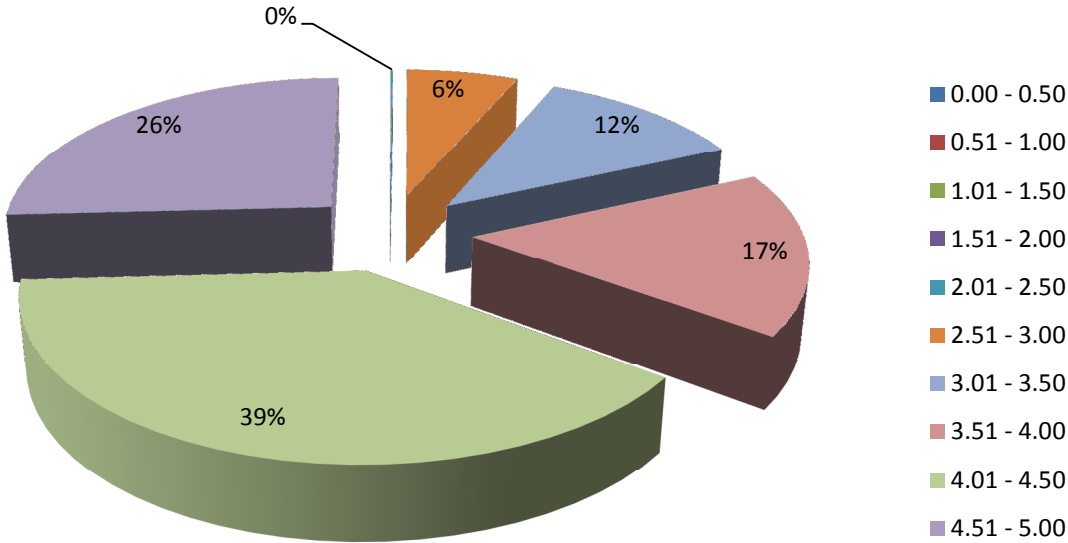
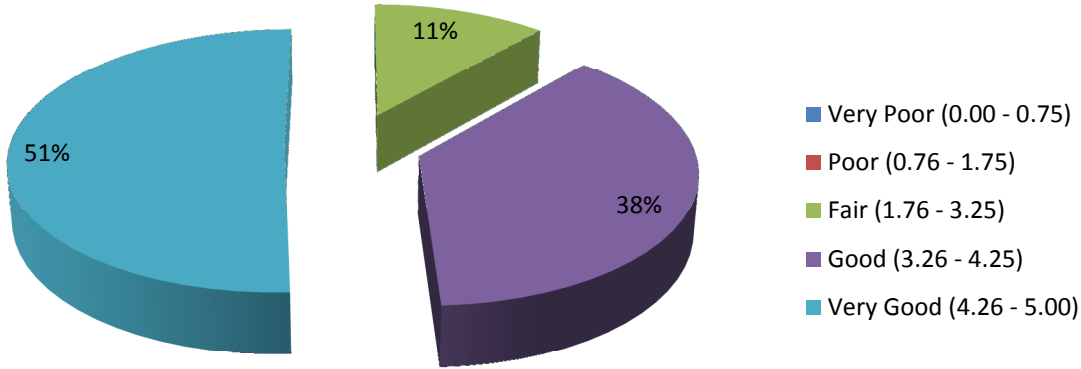
<b>2017 Region 1 NHS State Routes</b> <b>Average PQI of 3.828 for 971 centerline miles</b>	
Values	Percentage %
Very Poor (0.00 - 0.75)	0
Poor (0.76 - 1.75)	0
Fair (1.76 - 3.25)	22
Good (3.26 - 4.25)	43
Very Good (4.26 - 5.00)	35

<b>2017 Region 1 Interstates</b> <b>Average PQI of 4.085 for 690 centerline miles</b>	
Values	Percentage %
0.00 - 0.50	0
0.51 - 1.00	0
1.01 - 1.50	0
1.51 - 2.00	0
2.01 - 2.50	0
2.51 - 3.00	6
3.01 - 3.50	12
3.51 - 4.00	17
4.01 - 4.50	39
4.51 - 5.00	26

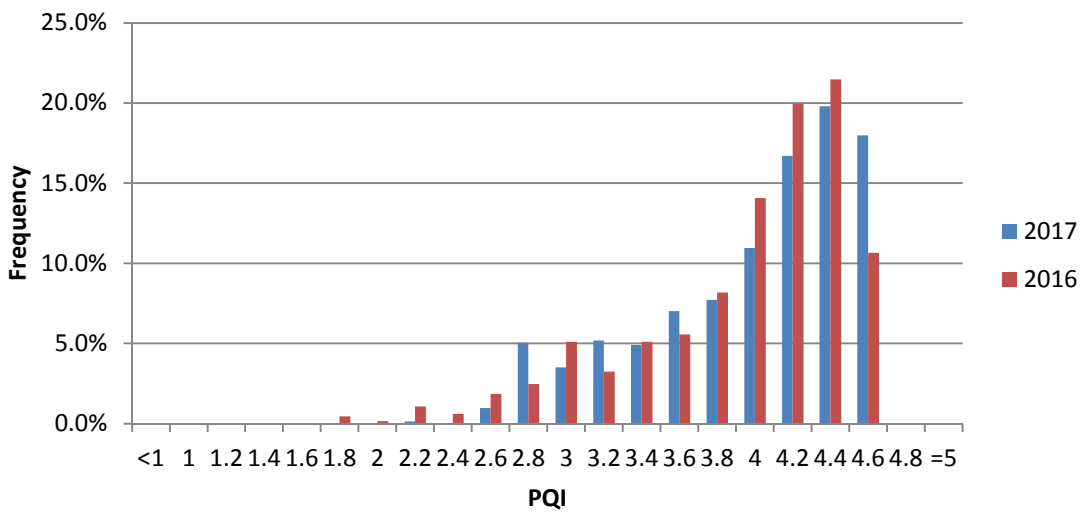
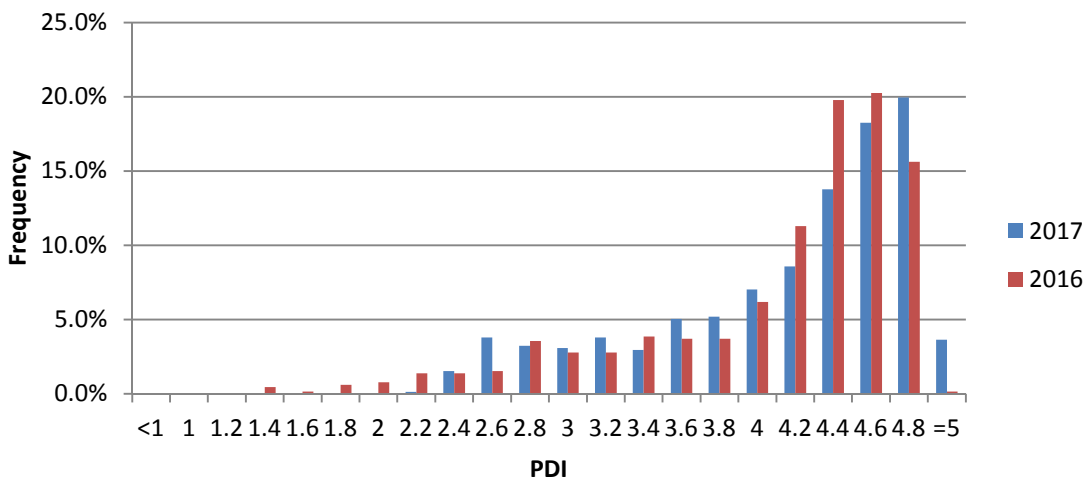
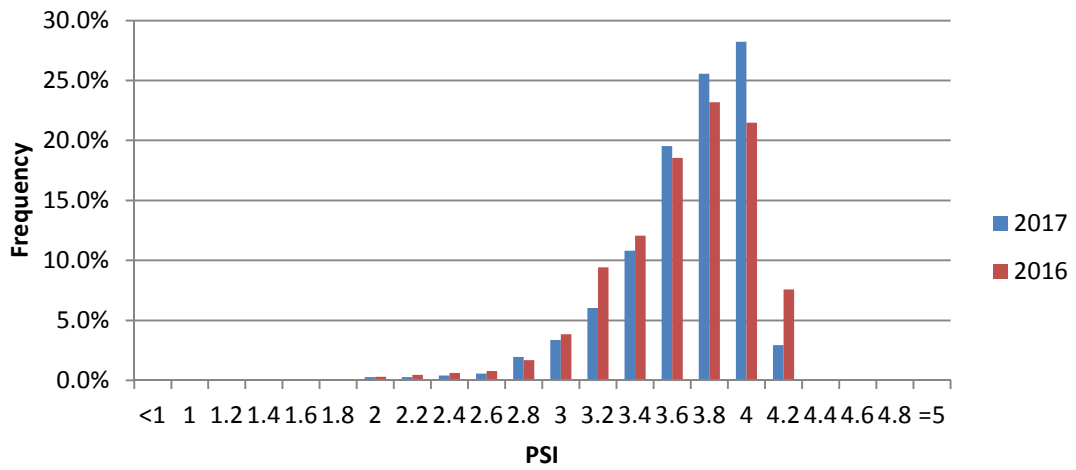
<b>2017 Region 1 NHS State Routes</b> <b>Average PQI of 3.828 for 971 centerline miles</b>	
Values	Percentage %
0.00 - 0.50	0
0.51 - 1.00	0
1.01 - 1.50	0
1.51 - 2.00	0
2.01 - 2.50	2
2.51 - 3.00	10
3.01 - 3.50	18
3.51 - 4.00	21
4.01 - 4.50	42
4.51 - 5.00	7

### 2.1.1 PQI conditions for Region 1 Interstates

(Average PQI=4.085 for 690 centerline miles)



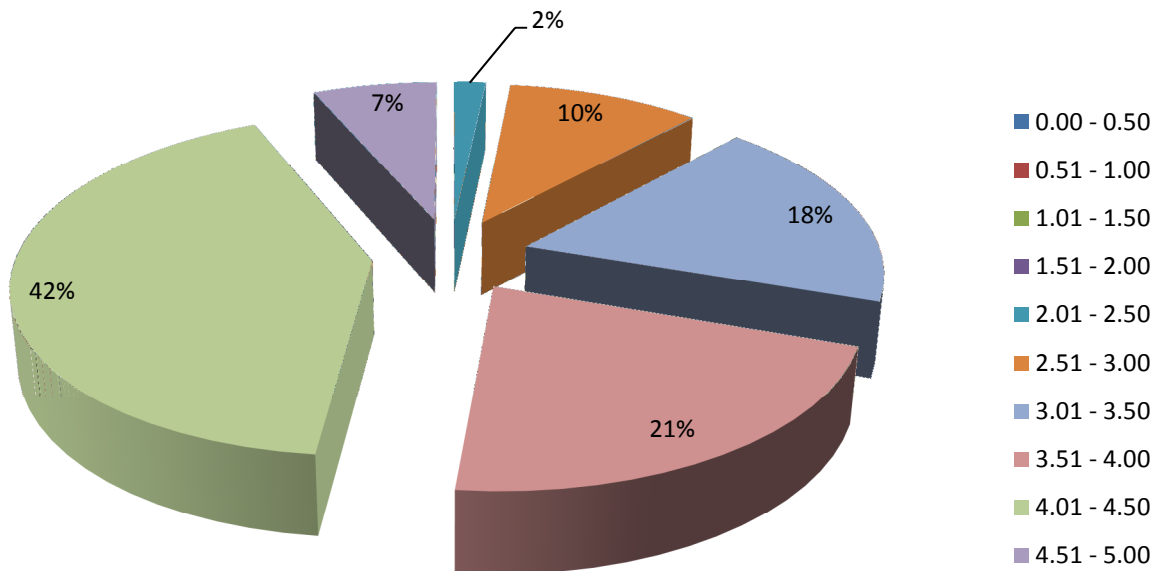
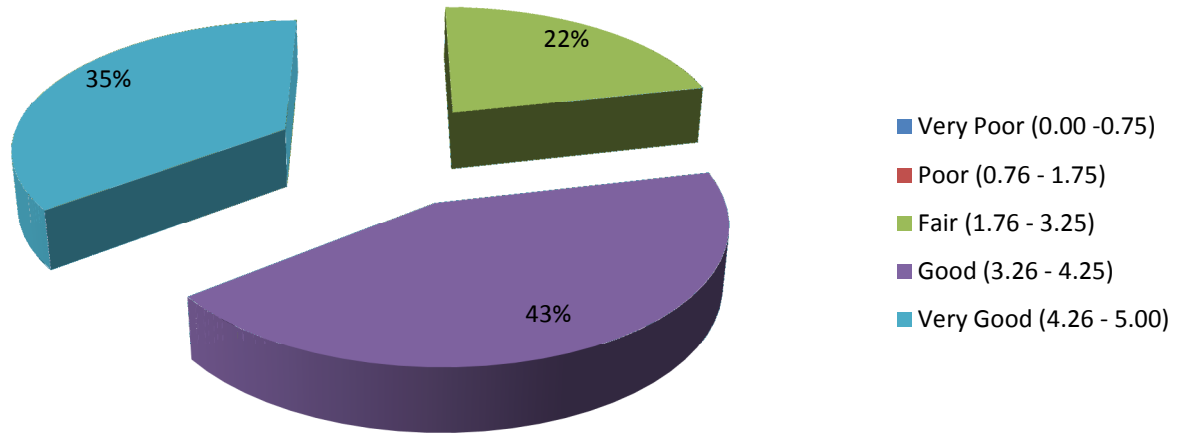
### Distributions of pavement condition indices for Region 1 Interstates



Note: 690 centerline miles for 2016; and 690 centerline miles for 2017

## 2.1.2 PQI conditions for Region 1 NHS State Routes

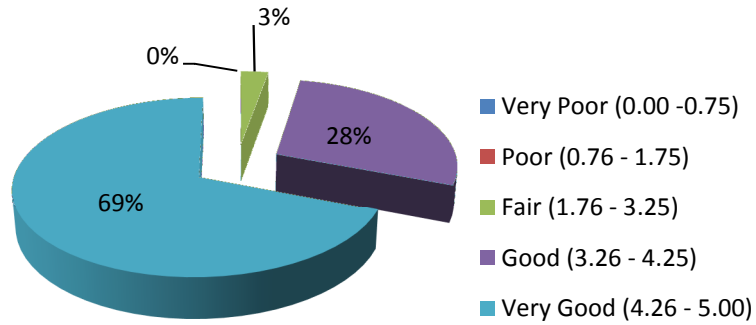
(Average PQI=3.828 for 971 centerline miles)



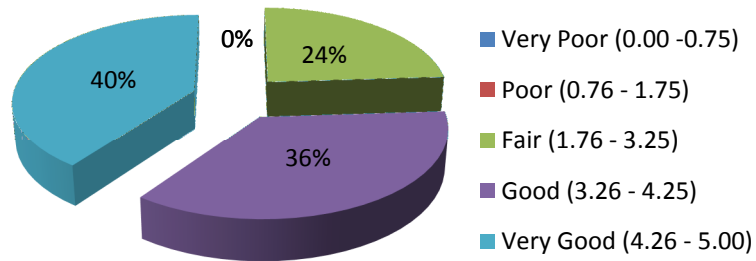
## 2.2 District PQI Values and Conditions in Region 1

### 2.2.1 PQI conditions for Interstates

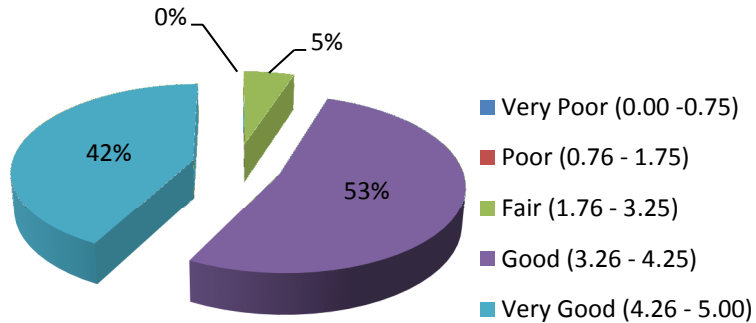
#### District 17 Interstate( 245.1 miles)



#### District 18 Interstate( 270.4 miles)

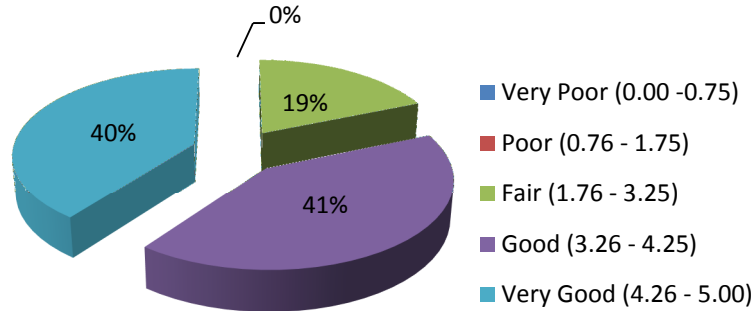


#### District 19 Interstate( 174.7 miles)

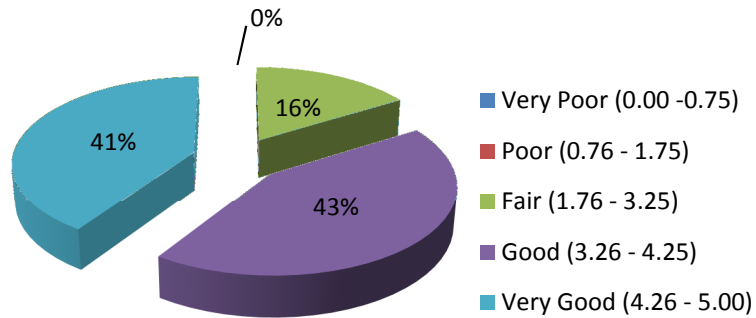


## 2.2.2 PQI conditions for NHS State Routes

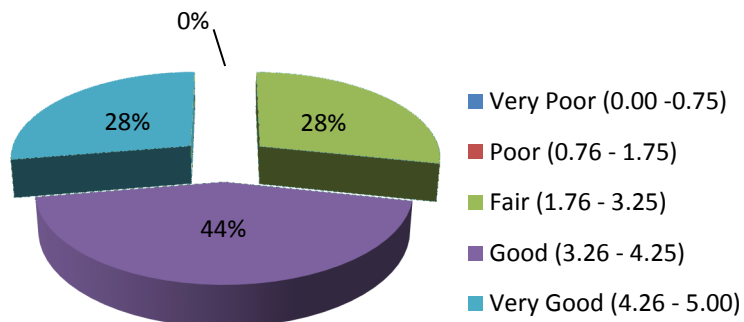
### District 17 State Route (376.5miles)



### District 18 State Route (274.2miles)



### District 19 State Route (320.4miles)





### 3. Summary of Region 2 Pavement Condition Indices

2017 Region 2 by District		Interstate				NHS State Route		
District	County	Average PSI	Average PDI	Average PQI	IRI<=94 In./mi.	Average PSI	Average PDI	Average PQI
27	14 CLAY					3.476	4.520	4.176
27	18 CUMBERLAND	3.945	3.861	3.880	99.0%	3.545	3.743	3.670
27	21 DEKALB					3.537	4.817	4.389
27	25 FENTRESS					3.417	3.744	3.639
27	44 JACKSON					3.586	4.507	4.202
27	67 OVERTON					3.805	4.568	4.321
27	69 PICKETT					3.734	4.612	4.326
27	71 PUTNAM	4.019	4.210	4.148	99.5%	3.369	4.165	3.904
27	93 WHITE					3.589	3.979	3.852
<b>Average</b>		<b>3.985</b>	<b>4.048</b>	<b>4.024</b>	<b>99.2%</b>	<b>3.561</b>	<b>4.223</b>	<b>4.004</b>
28	4 BLEDSOE					3.693	4.465	4.214
28	8 CANNON					3.744	4.425	4.205
28	16 COFFEE	3.902	4.615	4.385	99.0%	3.586	4.004	3.860
28	26 FRANKLIN					3.509	4.174	3.956
28	31 GRUNDY	3.964	4.622	4.413	97.9%	2.990	4.530	4.000
28	58 MARION	3.931	4.558	4.351	96.4%	3.449	4.364	4.063
28	77 SEQUATCHIE					3.475	3.940	3.780
28	88 VAN BUREN					3.791	4.570	4.318
28	89 WARREN					3.700	4.223	4.047
<b>Average</b>		<b>3.922</b>	<b>4.589</b>	<b>4.373</b>	<b>97.7%</b>	<b>3.609</b>	<b>4.235</b>	<b>4.027</b>
29	6 BRADLEY	4.088	4.722	4.521	100.0%	3.508	4.141	3.932
29	33 HAMILTON	3.378	4.313	3.999	71.1%	3.178	4.165	3.827
29	54 MCMINN	4.006	4.671	4.457	100.0%	3.436	3.527	3.470
29	61 MEIGS					3.539	4.364	4.093
29	70 POLK					3.454	4.284	4.011
29	72 RHEA					3.319	4.065	3.806
<b>Average</b>		<b>3.760</b>	<b>4.532</b>	<b>4.279</b>	<b>87.7%</b>	<b>3.320</b>	<b>4.123</b>	<b>3.849</b>

All state routes in this table are on the NHS

### 3.1 Region 2 PQI Values and Conditions

2017 Region 2 Interstates Average PQI of 4.227 for 431 centerline miles	
Values	Percentage %
Very Poor (0.00 - 0.75)	0
Poor (0.76 - 1.75)	0
Fair (1.76 - 3.25)	1
Good (3.26 - 4.25)	42
Very Good (4.26 - 5.00)	56

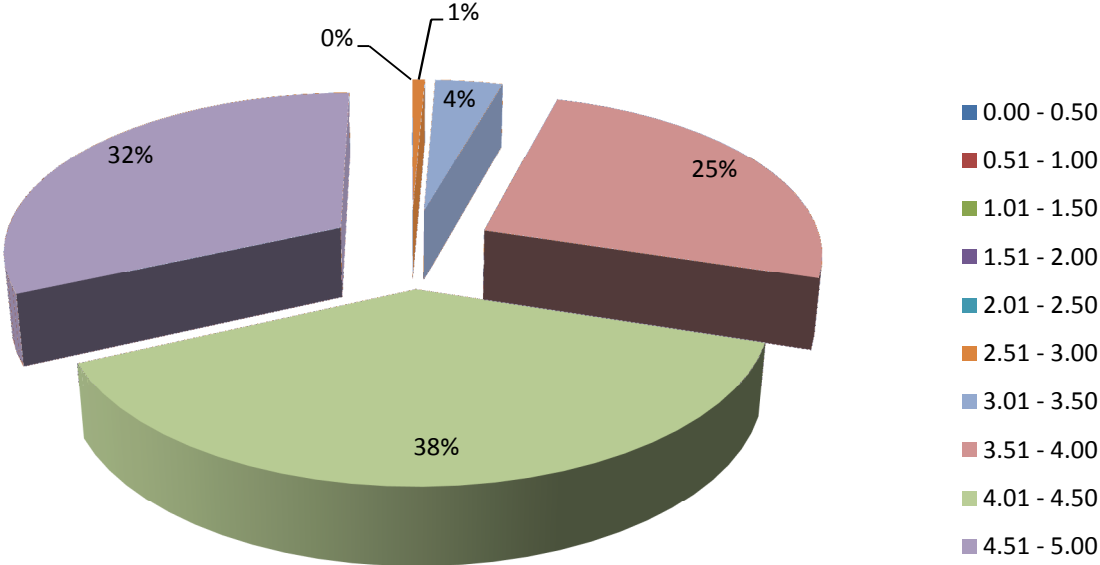
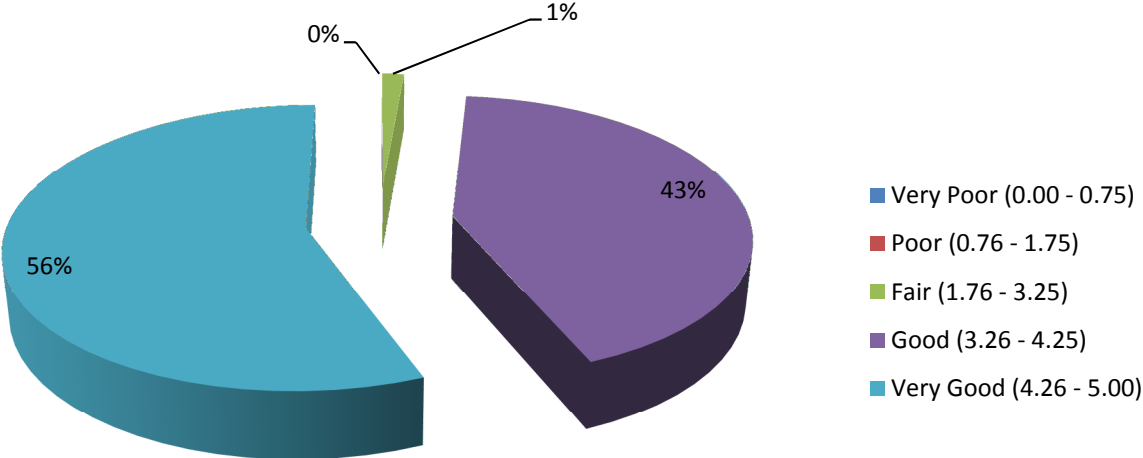
2017 Region 2 NHS State Routes Average PQI of 3.954 for 822 centerline miles	
Values	Percentage %
Very Poor (0.00 - 0.75)	0
Poor (0.76 - 1.75)	0
Fair (1.76 - 3.25)	15
Good (3.26 - 4.25)	44
Very Good (4.26 - 5.00)	41

2017 Region 2 Interstates Average PQI of 4.227 for 431 centerline miles	
Values	Percentage %
0.00 - 0.50	0
0.51 - 1.00	0
1.01 - 1.50	0
1.51 - 2.00	0
2.01 - 2.50	0
2.51 - 3.00	1
3.01 - 3.50	4
3.51 - 4.00	25
4.01 - 4.50	38
4.51 - 5.00	32

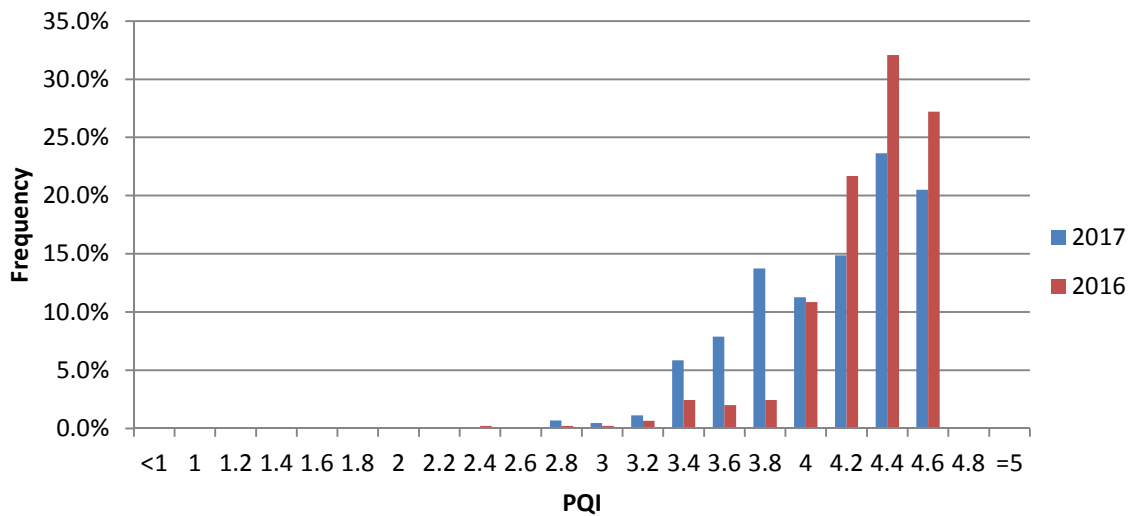
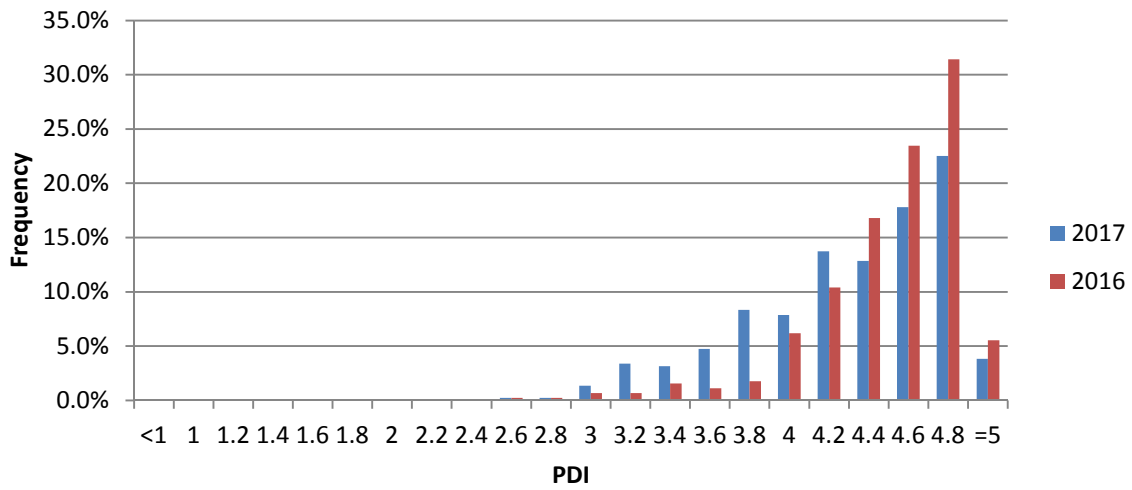
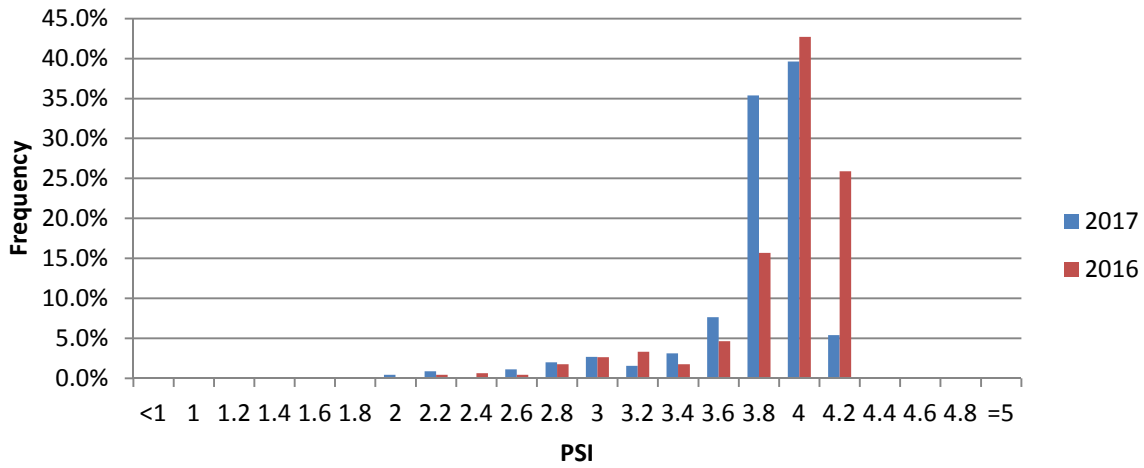
2017 Region 2 NHS State Routes Average PQI of 3.954 for 822 centerline miles	
Values	Percentage %
0.00 - 0.50	0
0.51 - 1.00	0
1.01 - 1.50	0
1.51 - 2.00	0
2.01 - 2.50	1
2.51 - 3.00	6
3.01 - 3.50	15
3.51 - 4.00	21
4.01 - 4.50	41
4.51 - 5.00	16

### 3.1.1 PQI conditions for Region 2 Interstates

(Average PQI=4.227 for 431 centerline miles)



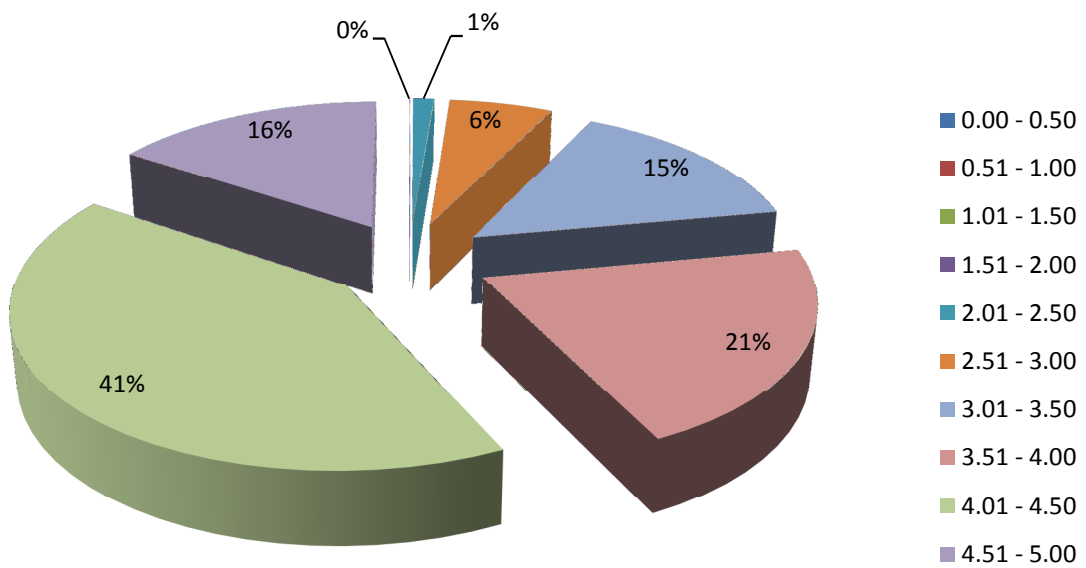
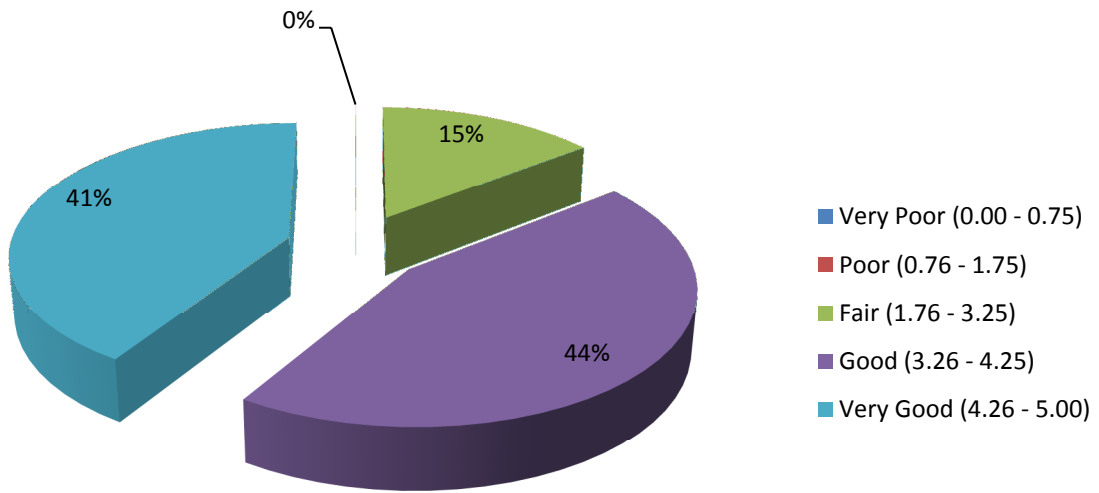
### Distributions of pavement condition indices for Region 2 Interstates



Note: 439 centerline miles for 2016 and 431 centerline miles for 2017.

### 3.1.2 PQI conditions for Region 2 NHS State Routes

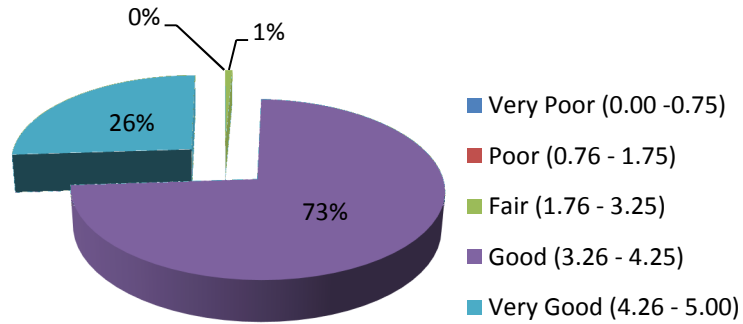
(Average PQI=3.954 for 822 centerline miles)



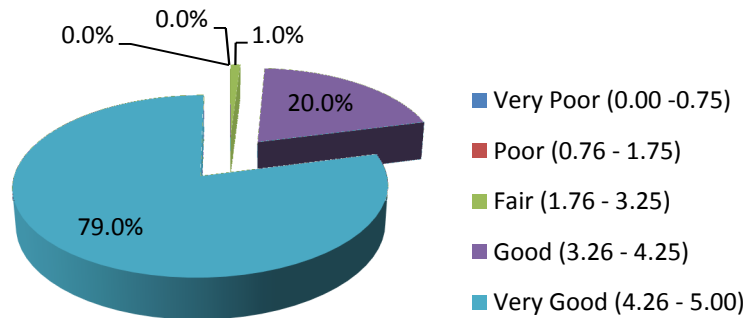
## 3.2 District PQI Values and Conditions in Region 2

### 3.2.1 PQI conditions for Interstates

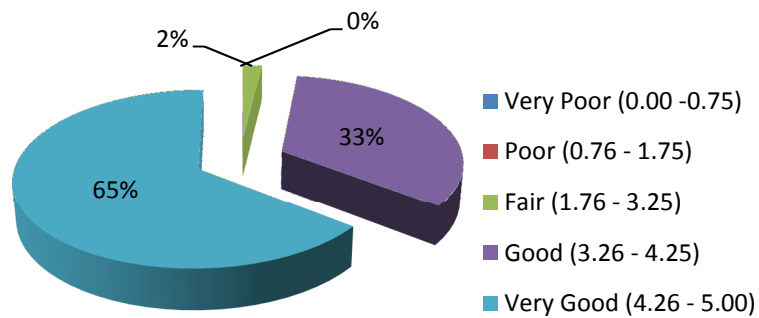
#### District 27 Interstate( 138.4 miles)



#### District 28 Interstate( 139.2 miles)

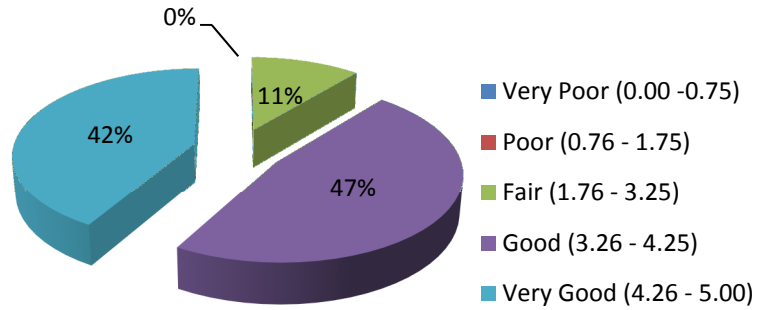


#### District 29 Interstate( 153.8 miles)

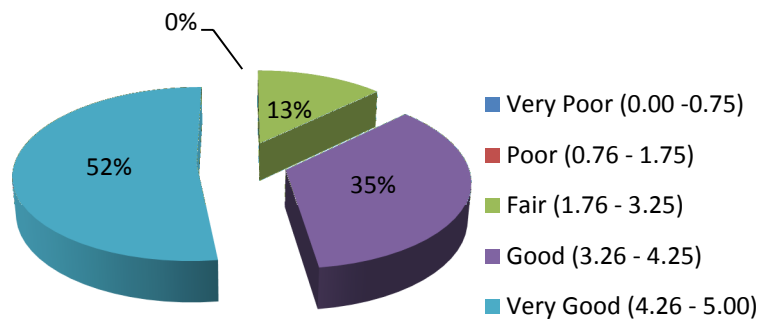


### 3.2.3 PQI conditions for State Routes

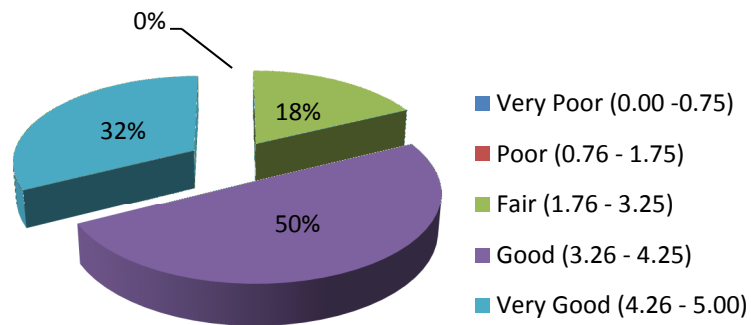
#### District 27 State Route (255.4 miles)



#### District 28 State Route (263.2 miles)



#### District 29 State Route (303.0 miles)



## 4. Summary of Region 3 Pavement Condition Indices

2017 Region 3 by District		Interstate				State Route		
District	County	Average PSI	Average PDI	Average PQI	IRI<= 94in./mi.	Average PSI	Average PDI	Average PQI
37	19 DAVIDSON	3.480	4.245	3.993	78.1%	3.000	4.022	3.667
37	56 MACON					3.105	4.219	3.833
37	80 SMITH	3.960	4.791	4.525	98.0%	3.070	4.323	3.894
37	83 SUMNER	3.641	3.889	3.805	94.9%	3.210	3.745	3.552
37	85 TROUSDALE					3.171	3.837	3.612
37	94 WILLIAMSON	3.611	4.156	3.970	86.9%	3.103	4.129	3.781
37	95 WILSON	3.801	4.671	4.389	96.8%	3.076	4.203	3.819
<b>Average</b>		<b>3.620</b>	<b>4.369</b>	<b>4.112</b>	<b>86.1%</b>	<b>3.108</b>	<b>4.008</b>	<b>3.696</b>
38	11 CHEATHAM	3.818	4.274	4.123	97.4%	3.317	3.971	3.751
38	22 DICKSON	3.956	4.588	4.386	97.4%	3.550	4.173	3.966
38	41 HICKMAN	3.885	4.677	4.421	94.3%	3.435	4.233	3.968
38	42 HOUSTON					3.534	4.533	4.201
38	43 HUMPHREYS	3.768	4.868	4.505	93.1%	3.756	4.693	4.387
38	60 MAURY	3.930	4.959	4.624	98.9%	3.351	4.276	3.966
38	63 MONTGOMERY	3.998	4.906	4.613	100.0%	3.353	4.031	3.803
38	74 ROBERTSON	3.731	4.347	4.143	91.9%	3.371	4.022	3.799
38	81 STEWART					3.297	4.159	3.868
<b>Average</b>		<b>3.866</b>	<b>4.643</b>	<b>4.390</b>	<b>95.9%</b>	<b>3.419</b>	<b>4.194</b>	<b>3.934</b>
39	2 BEDFORD	3.640	4.800	4.415	94.4%	3.394	4.167	3.907
39	28 GILES	3.748	4.748	4.422	94.8%	3.196	3.894	3.653
39	50 LAWRENCE					3.357	4.359	4.019
39	51 LEWIS					3.521	4.437	4.131
39	52 LINCOLN					3.248	4.030	3.761
39	59 MARSHALL	4.073	4.914	4.644	98.8%	3.327	4.355	4.007
39	64 MOORE					3.274	4.340	3.981
39	68 PERRY					3.229	3.959	3.712
39	75 RUTHERFORD	3.774	4.725	4.414	95.6%	3.204	3.920	3.673
39	91 WAYNE					3.113	3.892	3.609
<b>Average</b>		<b>3.810</b>	<b>4.758</b>	<b>4.449</b>	<b>95.9%</b>	<b>3.273</b>	<b>4.097</b>	<b>3.815</b>



### 4.1 Region 3 PQI Values and Conditions

<b>2017 Region 3 Interstates Average PQI of 4.256 for 861 miles</b>	
<b>Values</b>	<b>Percentage %</b>
Very Poor (0-0.75)	0
Poor (0.76-1.75)	0
Fair (1.76-3.25)	5
Good (3.26-4.25)	30
Very Good (4.26-5)	65

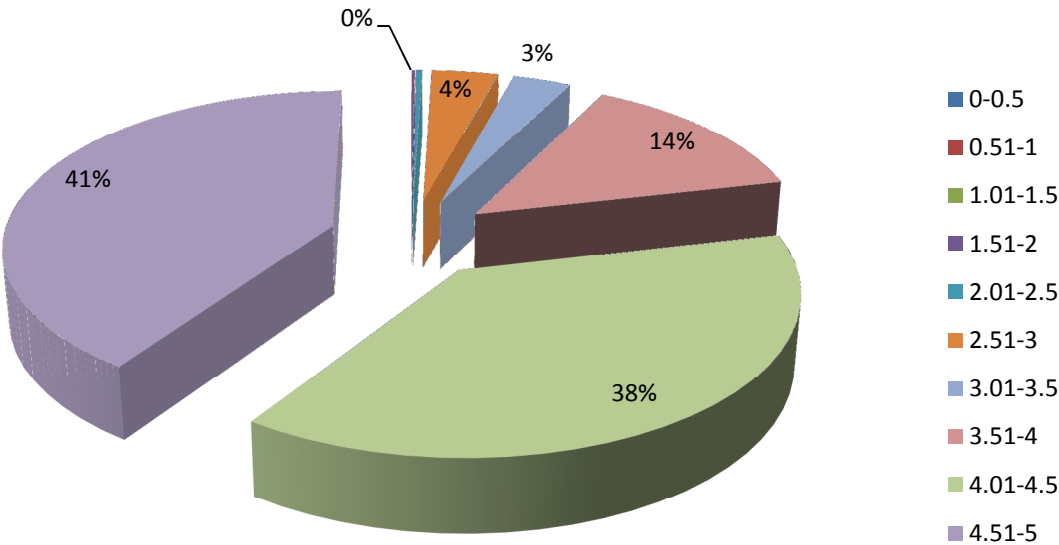
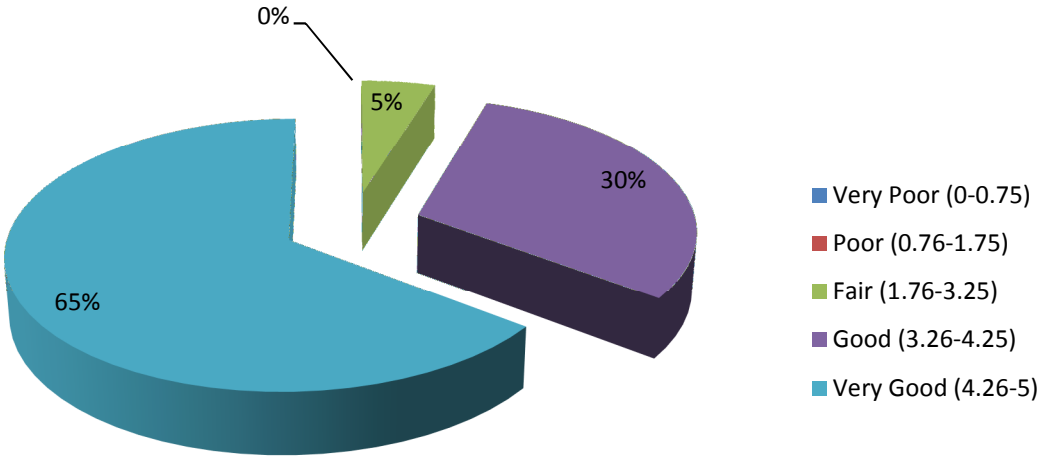
<b>2017 Region 3 State Routes Average PQI of 3.825 for 3652 miles</b>	
<b>Values</b>	<b>Percentage %</b>
Very Poor (0-0.75)	0
Poor (0.76-1.75)	0
Fair (1.76-3.25)	19
Good (3.26-4.25)	50
Very Good (4.26-5)	31

<b>2017 Region 3 Interstates Average PQI of 4.256 for 861 miles</b>	
<b>Values</b>	<b>Percentage %</b>
0-0.5	0
0.51-1	0
1.01-1.5	0
1.51-2	0
2.01-2.5	0
2.51-3	4
3.01-3.5	3
3.51-4	14
4.01-4.5	38
4.51-5	41

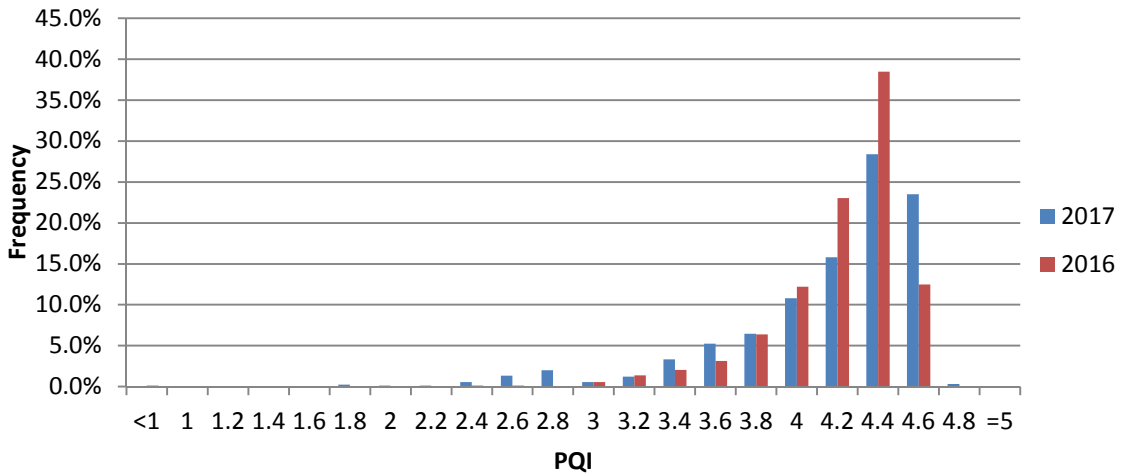
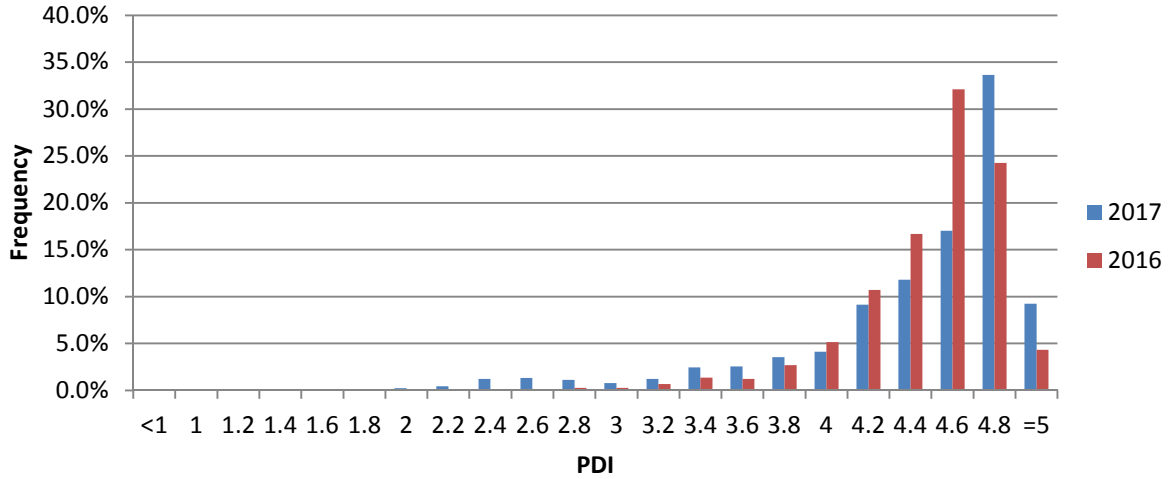
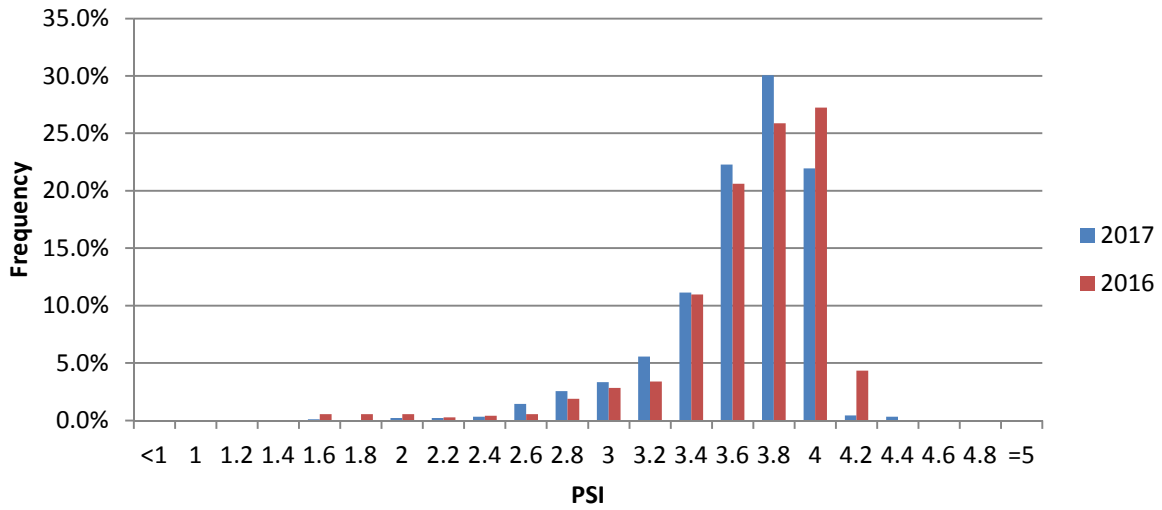
<b>2017 Region 3 State Routes Average PQI of 3.825 for 3652 miles</b>	
<b>Values</b>	<b>Percentage %</b>
0-0.5	0
0.51-1	0
1.01-1.5	0
1.51-2	0
2.01-2.5	1
2.51-3	9
3.01-3.5	20
3.51-4	26
4.01-4.5	31
4.51-5	13

### 4.1.1 PQI conditions for Region 3 Interstates

(Average PQI=4.256 for 861 centerline miles)



### Distributions of pavement condition indices for Region 3 Interstates

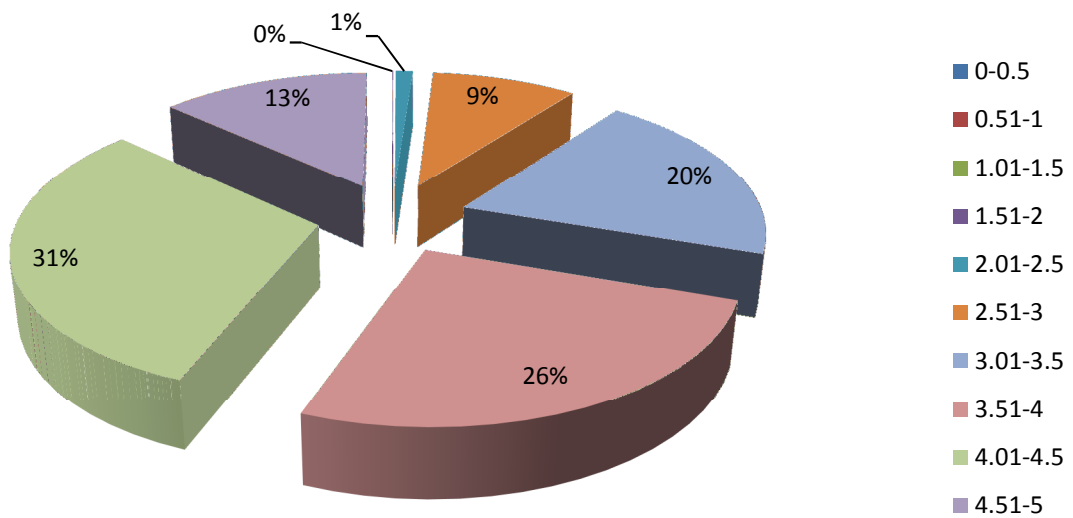
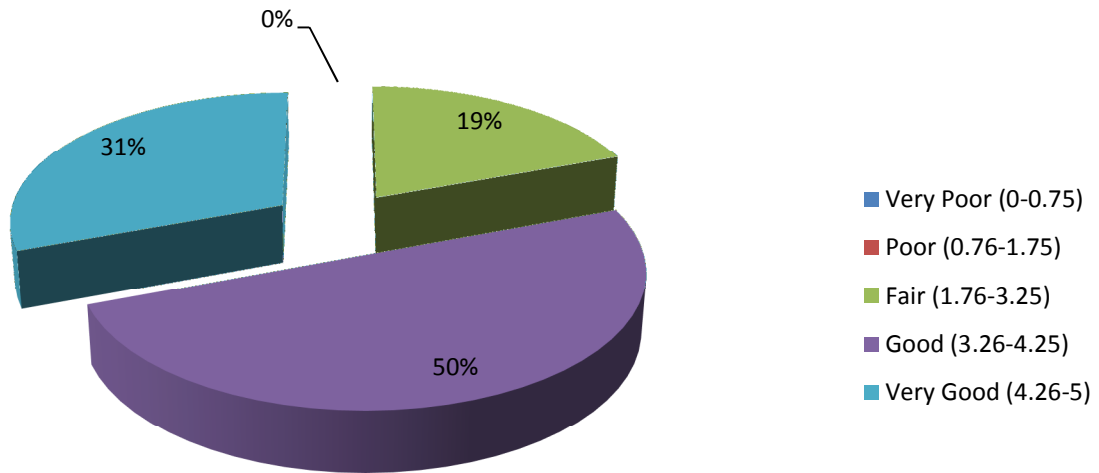


Note: 862 centerline miles for 2016 and 861 centerline miles for 2017

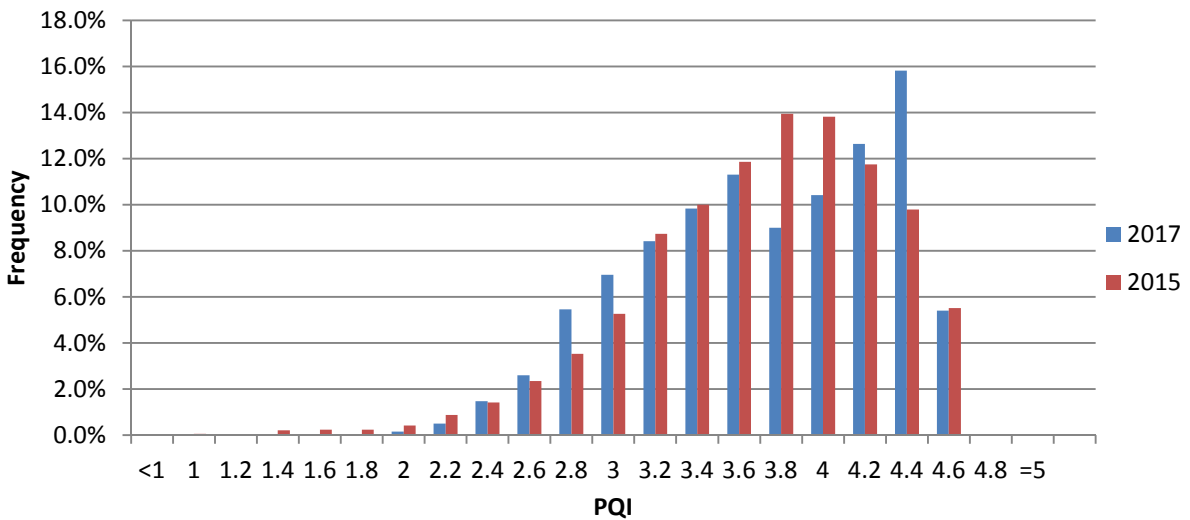
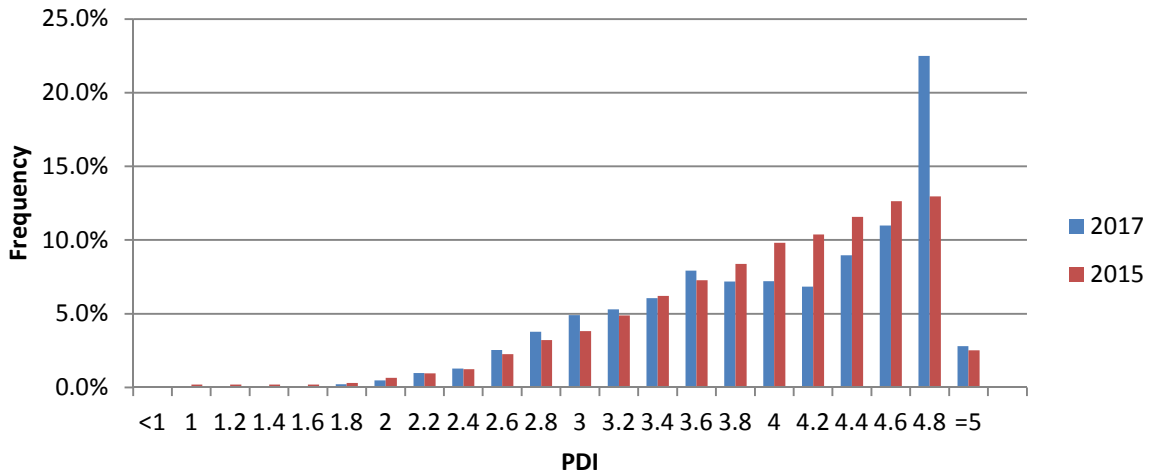
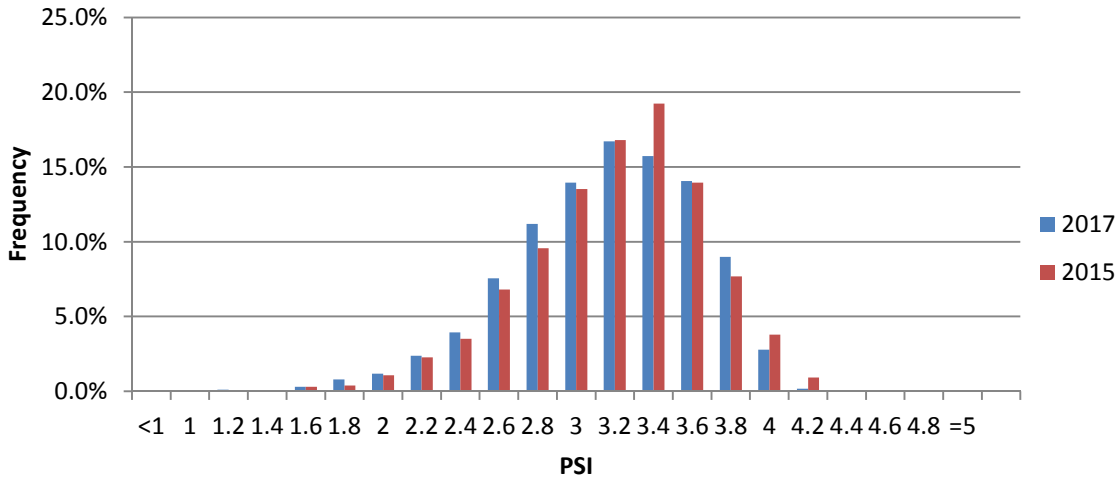
### 4.1.2 PQI conditions for Region 3 State Routes

#### State route in Region 3

(Average PQI=3.825 for 3652 centerline miles)



### Distributions of pavement condition indices for Region 3 State Routes

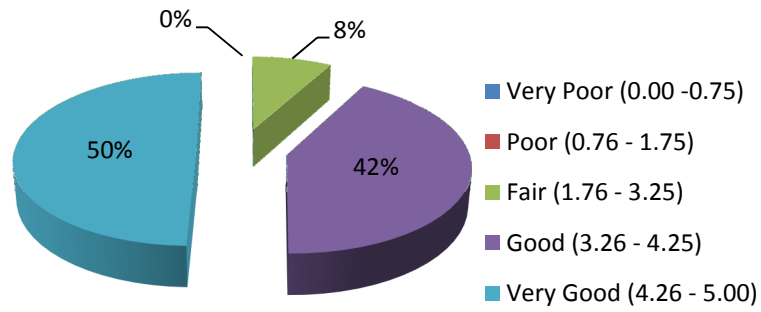


Note: 3726 centerline miles for 2015 and 3652 centerline miles for 2017

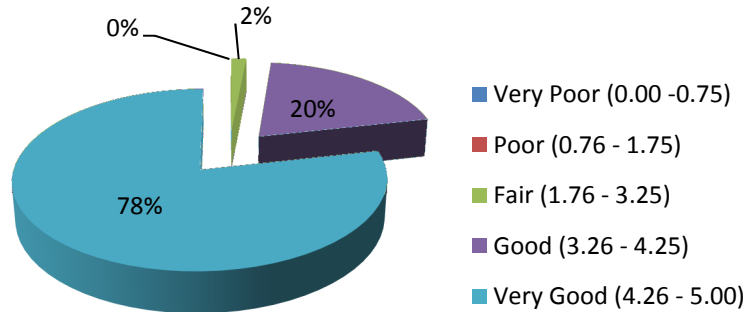
## 4.2 District PQI Values and conditions in Region 3

### 4.2.1 PQI conditions for Interstates

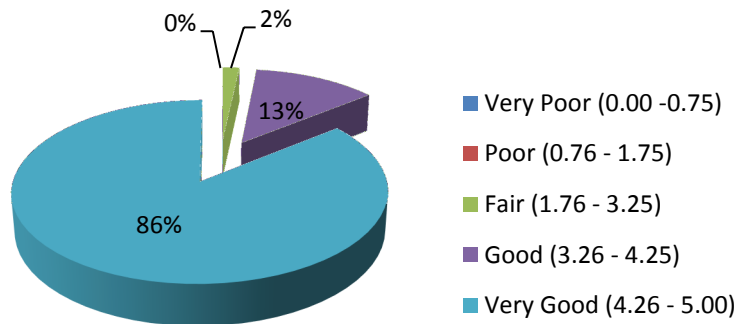
#### District 37 Interstate( 427.7 miles)



#### District 38 Interstate( 255.3 miles)

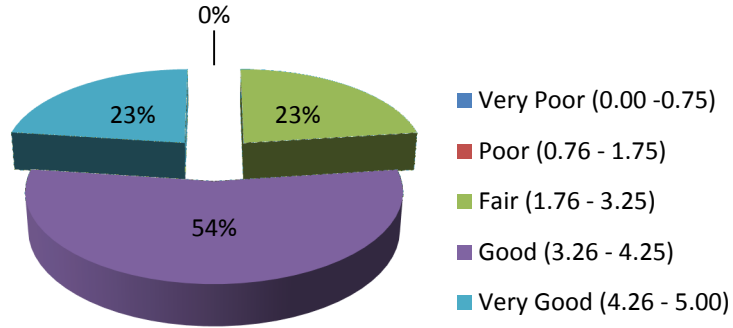


#### District 39 Interstate( 179.0 miles)

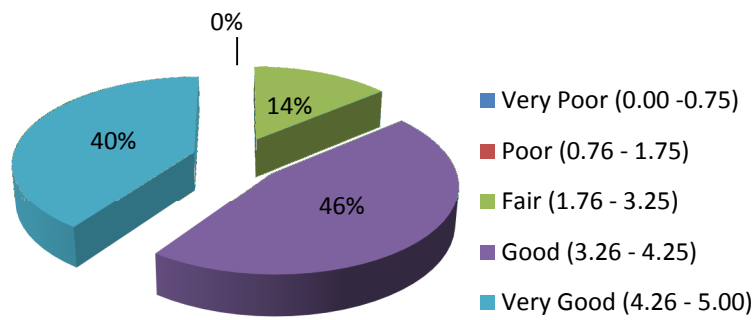


## 4.2.2 PQI conditions for State Routes

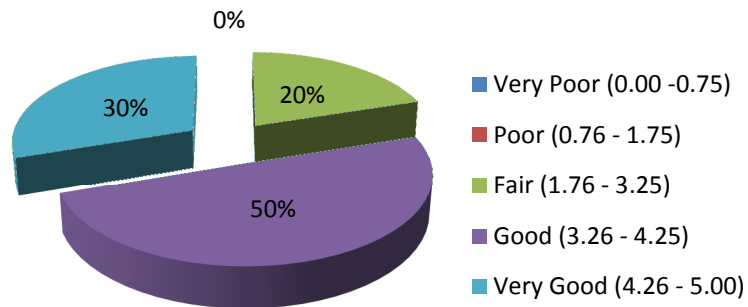
### District 37 State Route (1109.6 miles)



### District 38 State Route (1187.3 miles)



### District 39 State Route (1355.6 miles)



## 5. Summary of Region 4 Pavement Condition Indices

2017 Region 4 by District		Interstate				State Route		
District	County	Average PSI	Average PDI	Average PQI	IRI<=94 In./mi.	Average PSI	Average PDI	Average PQI
47	3 BENTON	3.681	4.833	4.452	92.8%	3.093	3.503	3.356
47	9 CARROLL	3.650	2.635	2.900	95.5%	2.724	3.259	3.069
47	23 DYER	3.855	3.274	3.419	93.1%	2.761	2.987	2.894
47	27 GIBSON					2.760	3.148	3.015
47	40 HENRY					2.961	3.040	2.993
47	48 LAKE					2.218	2.913	2.650
47	66 OBION					2.714	3.118	2.974
47	92 WEAKLEY					2.816	3.300	3.136
<b>Average</b>		<b>3.790</b>	<b>3.797</b>	<b>3.763</b>	<b>93.1%</b>	<b>2.786</b>	<b>3.169</b>	<b>3.030</b>
48	12 CHESTER					2.876	3.205	3.078
48	17 CROCKETT					2.851	3.045	2.974
48	20 DECATUR	3.949	2.909	3.181	100.0%	3.012	3.610	3.405
48	35 HARDEMAN					2.926	3.105	3.026
48	36 HARDIN					3.023	3.068	3.031
48	38 HAYWOOD	3.852	4.138	4.035	96.7%	2.685	3.167	2.999
48	39 HENDERSON	3.658	4.516	4.223	97.2%	2.724	3.180	3.016
48	55 MCNAIRY					2.896	3.389	3.211
48	57 MADISON	3.595	3.574	3.556	88.0%	2.841	3.358	3.175
<b>Average</b>		<b>3.713</b>	<b>3.975</b>	<b>3.870</b>	<b>94.1%</b>	<b>2.866</b>	<b>3.232</b>	<b>3.097</b>
49	24 FAYETTE	3.778	3.133	3.303	94.1%	3.014	3.523	3.344
49	49 LAUDERDALE					2.766	3.227	3.060
49	79 SHELBY	3.481	4.355	4.068	80.8%	2.597	3.337	3.069
49	84 TIPTON					2.814	3.242	3.086
<b>Average</b>		<b>3.541</b>	<b>4.106</b>	<b>3.912</b>	<b>83.8%</b>	<b>2.773</b>	<b>3.350</b>	<b>3.142</b>



## 5.1 Region 4 PQI Values and Conditions

<b>2017 Region 4 Interstates Average PQI of 3.873 for 373 miles</b>	
Value	Percentage %
Very Poor (0-0.75)	0
Poor (0.76-1.75)	0
Fair (1.76-3.25)	22
Good (3.26-4.25)	39
Very Good (4.26-5)	39

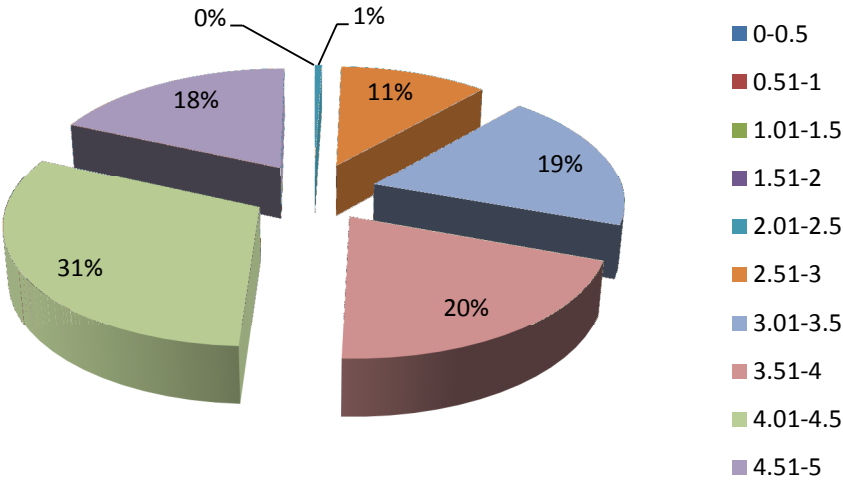
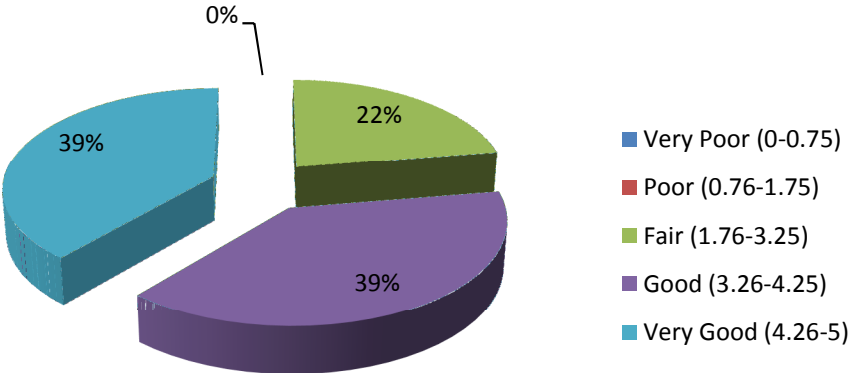
<b>2017 Region 4 State Routes Average PQI of 3.079 for 3360 miles</b>	
Value	Percentage %
Very Poor (0-0.75)	0
Poor (0.76-1.75)	0
Fair (1.76-3.25)	68
Good (3.26-4.25)	23
Very Good (4.26-5)	9

<b>2017 Region 4 Interstates Average PQI of 3.873 for 373 miles</b>	
Value	Percentage %
0-0.5	0
0.51-1	0
1.01-1.5	0
1.51-2	0
2.01-2.5	1
2.51-3	11
3.01-3.5	19
3.51-4	20
4.01-4.5	31
4.51-5	18

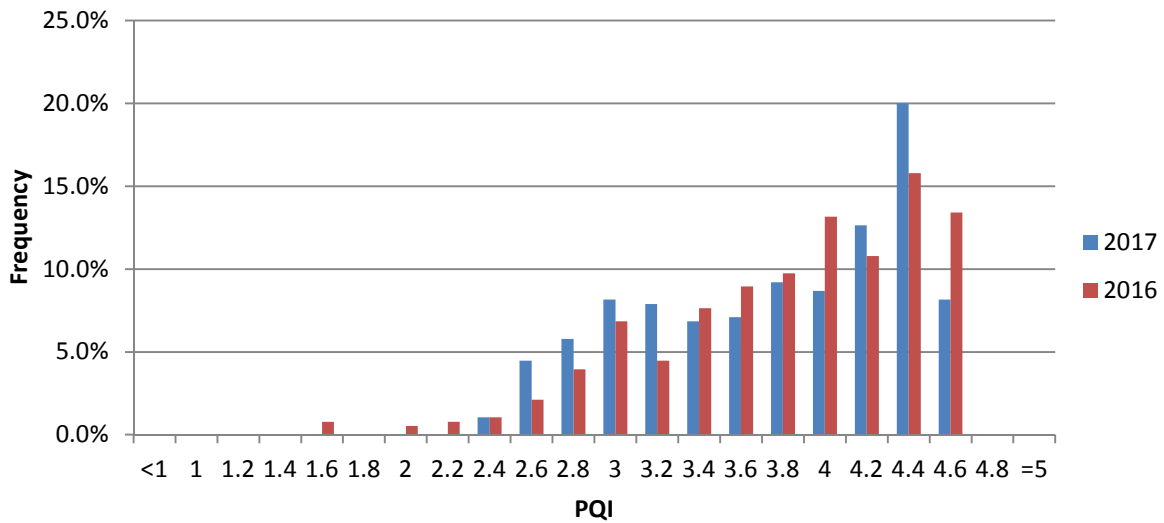
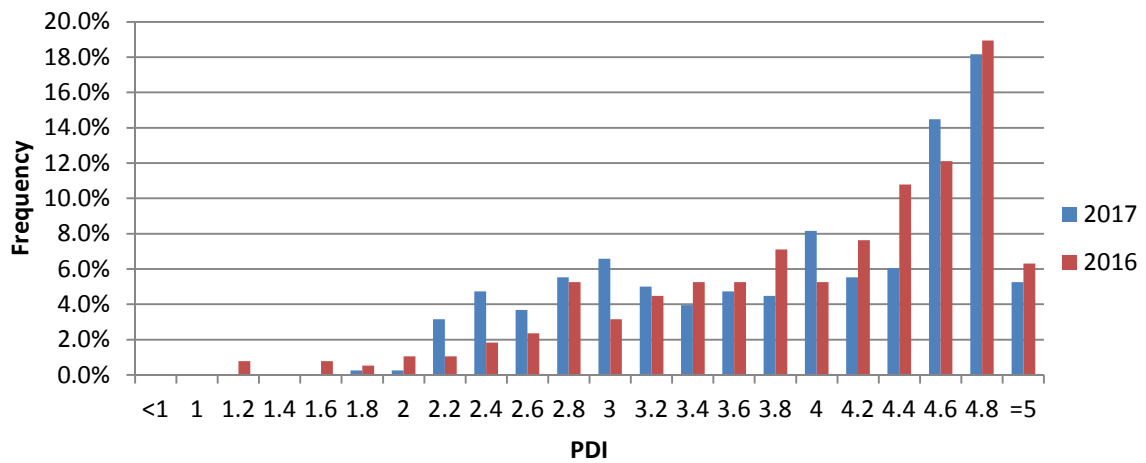
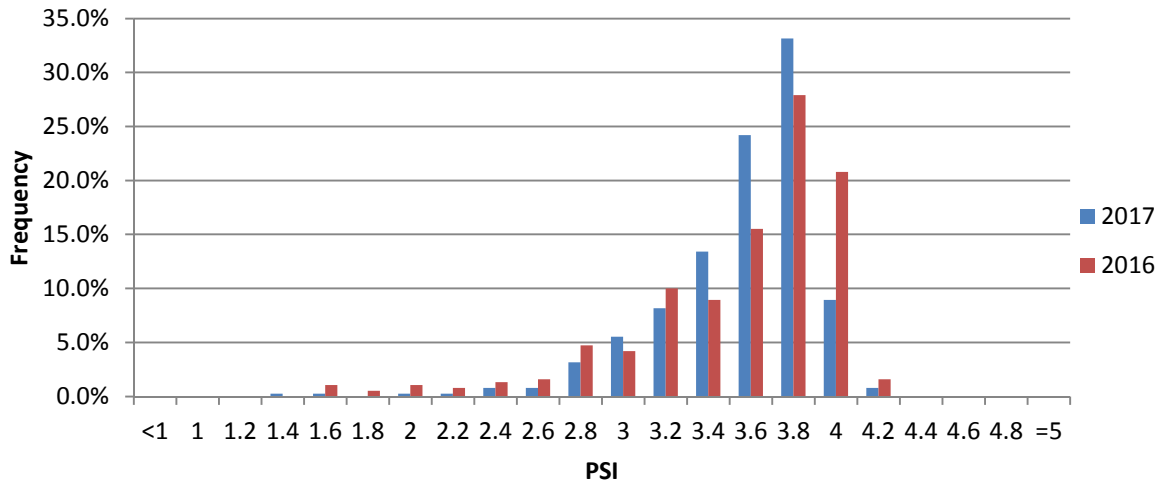
<b>2017 Region 4 State Routes Average PQI of 3.079 for 3360 miles</b>	
Value	Percentage %
0-0.5	0
0.51-1	0
1.01-1.5	0
1.51-2	1
2.01-2.5	17
2.51-3	37
3.01-3.5	23
3.51-4	10
4.01-4.5	9
4.51-5	3

### 5.1.1 PQI conditions for Region 4 Interstates

(Average PQI=3.873 for 373 centerline miles)



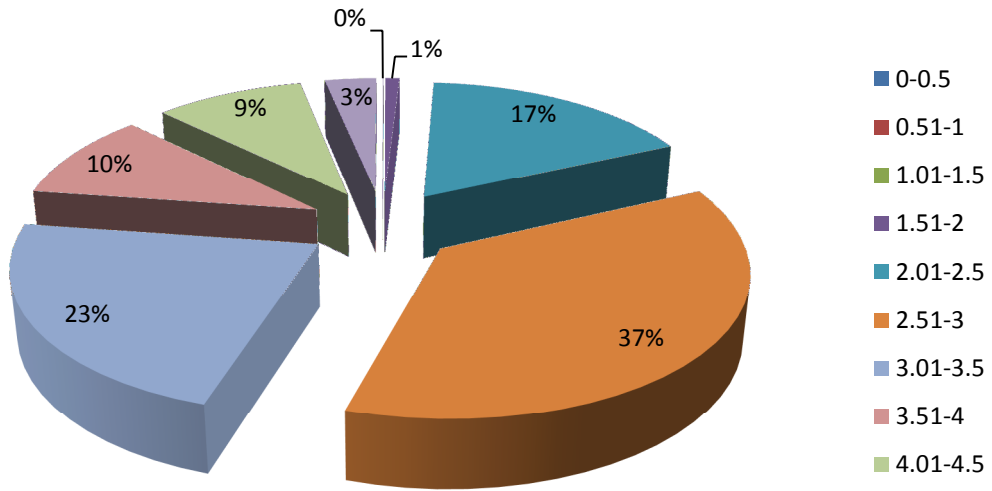
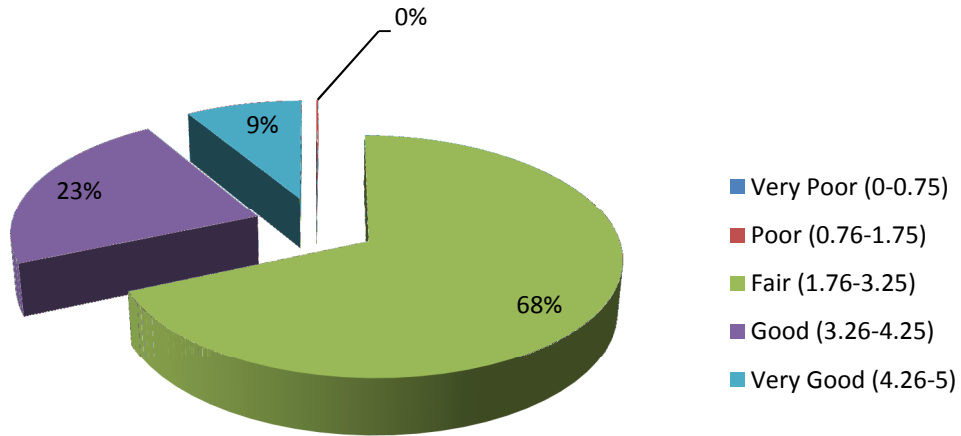
### Distributions of pavement condition indices for Region 4 Interstates



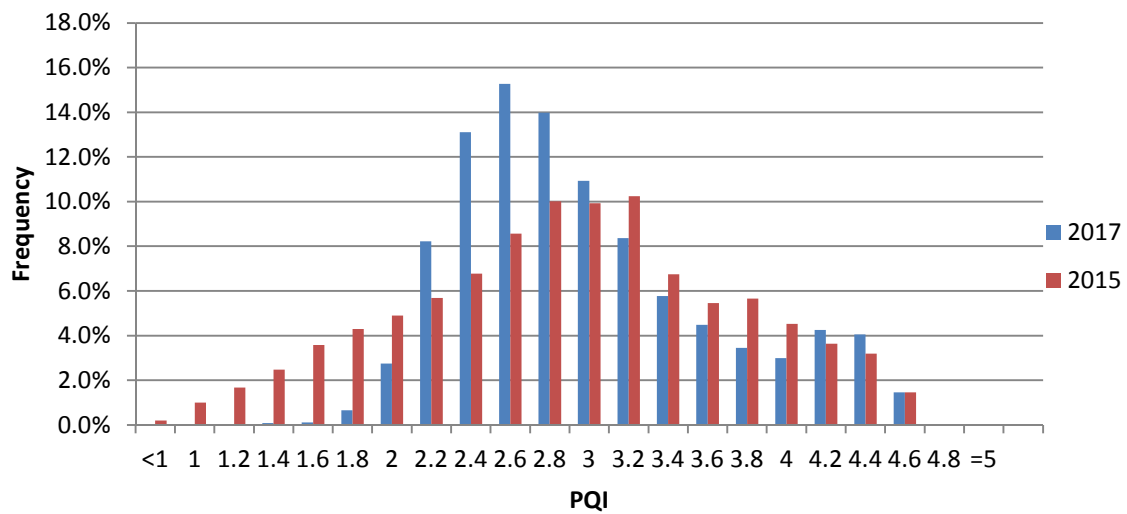
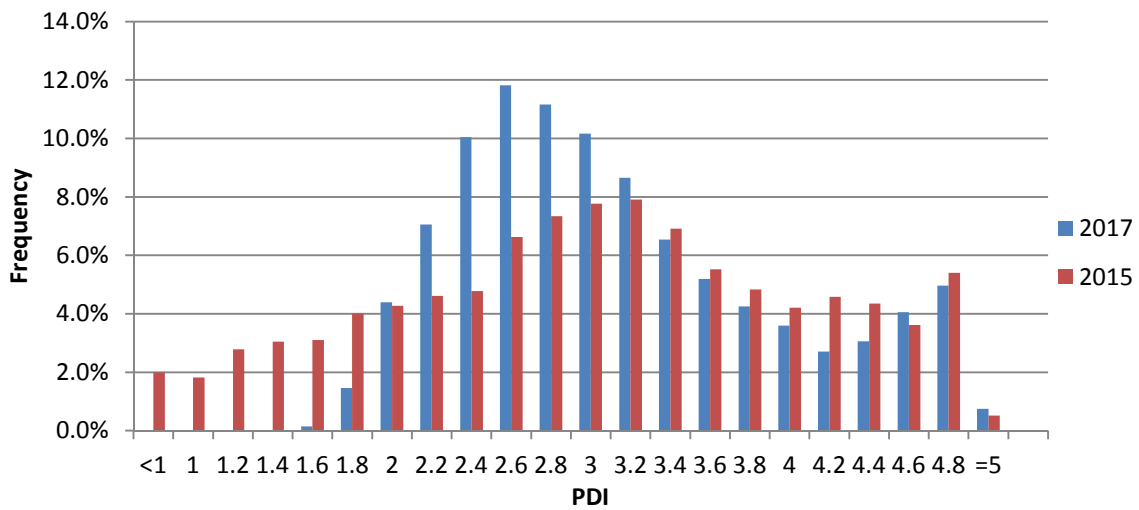
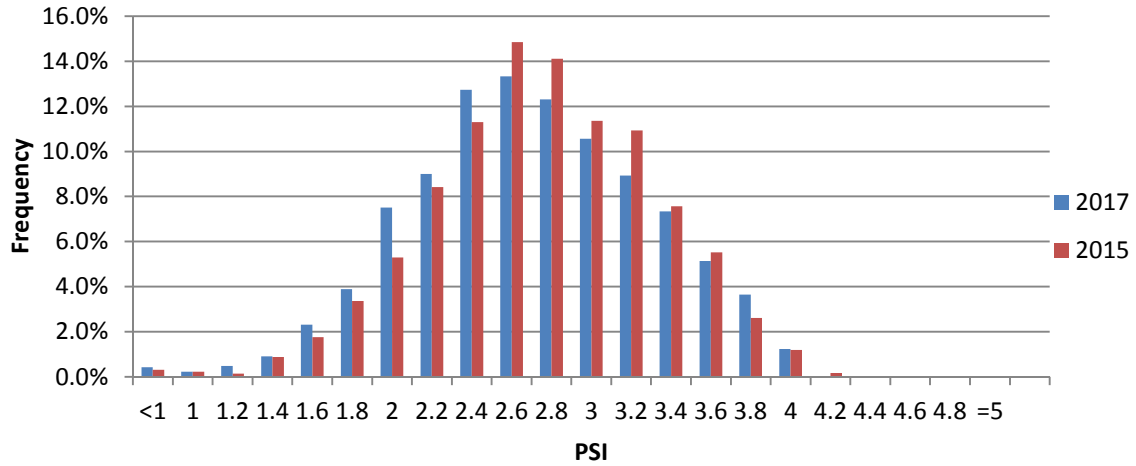
Note: 372 centerline miles for 2016 and 373 centerline miles for 2017

### 5.1.2 PQI conditions for Region 4 State Routes

(Average PQI=3.079 for 3360 centerline miles)



## Distributions of pavement condition indices for Region 4 State Routes

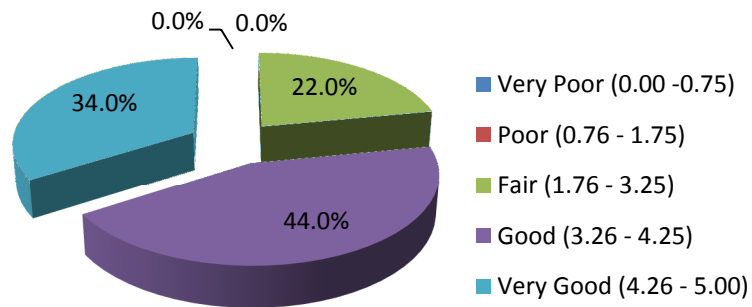


Note: 3372 centerline miles for 2015 and 3360 centerline miles for 2017

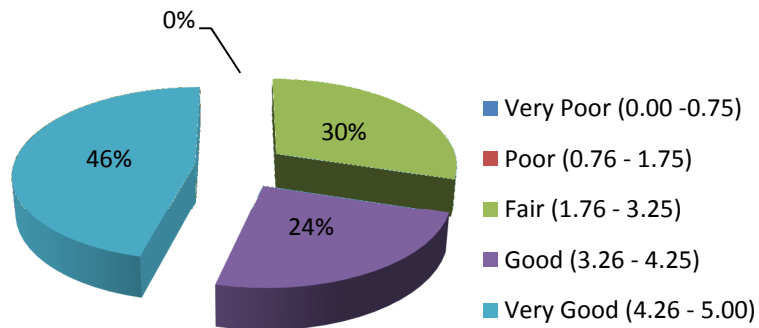
## 5.2 District PQI Values and Conditions in Region 4

### 5.2.1 PQI conditions for Interstates

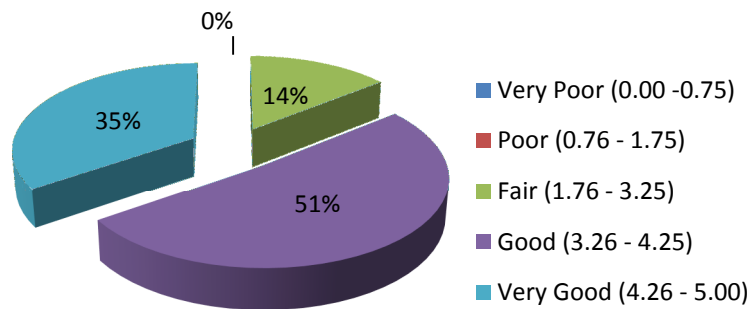
#### District 47 Interstate ( 50.8 miles)



#### District 48 Interstate( 164.3 miles)

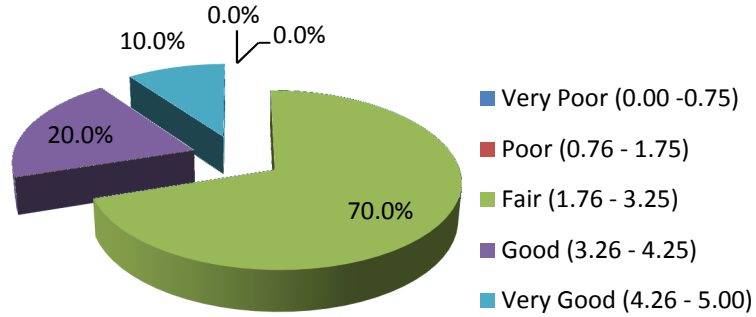


#### District 49 Interstate( 157.9 miles)

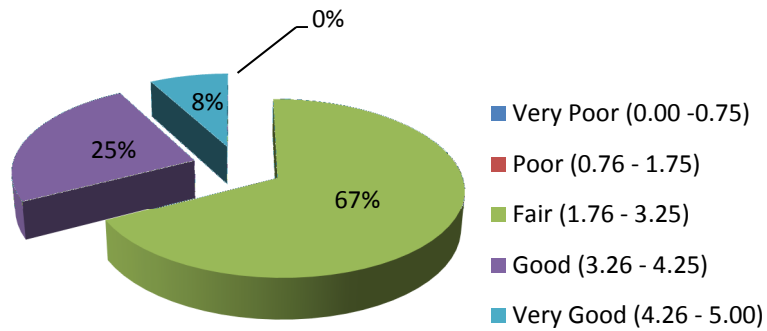


## 5.2.2 PQI conditions for State Routes

### District 47 State Route (1383.9miles)



### District 48 State Route (1231.8 miles)



### District 49 State Route (743.9 miles)

