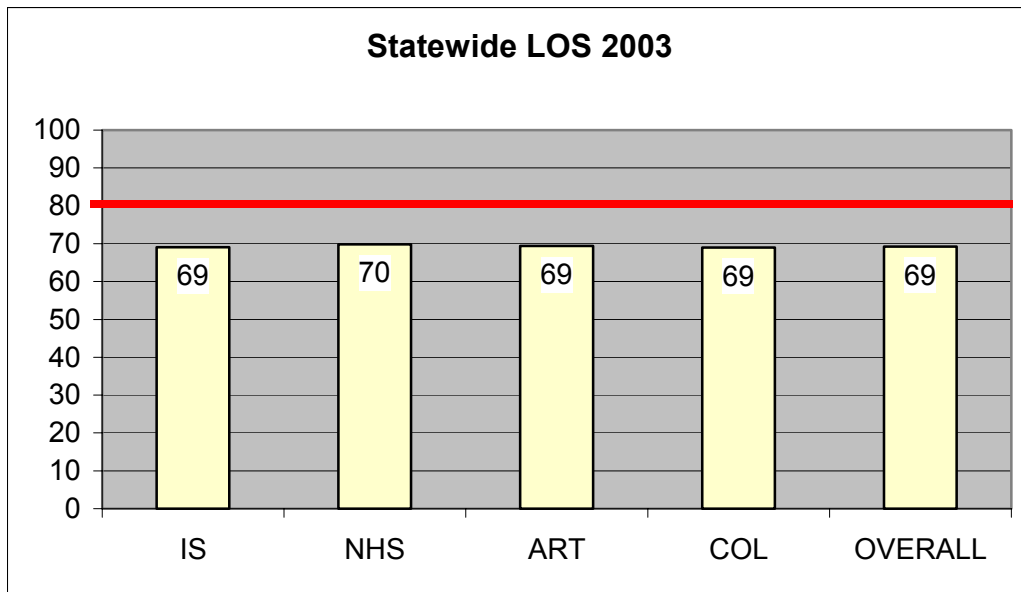


INTRODUCTION

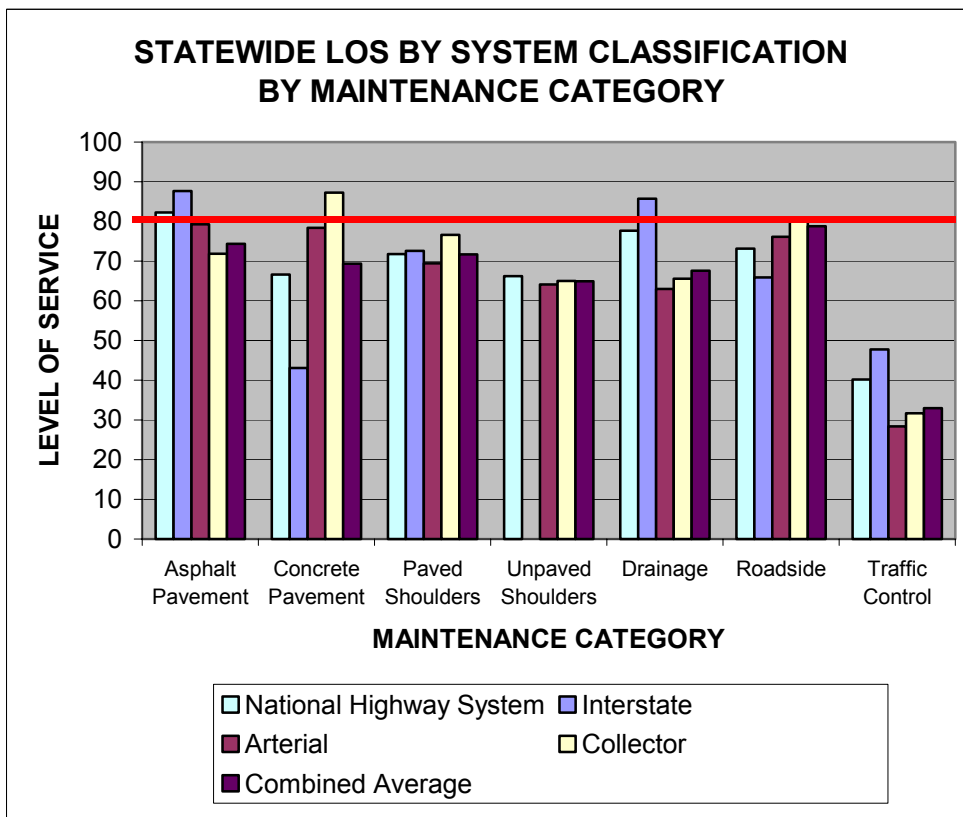
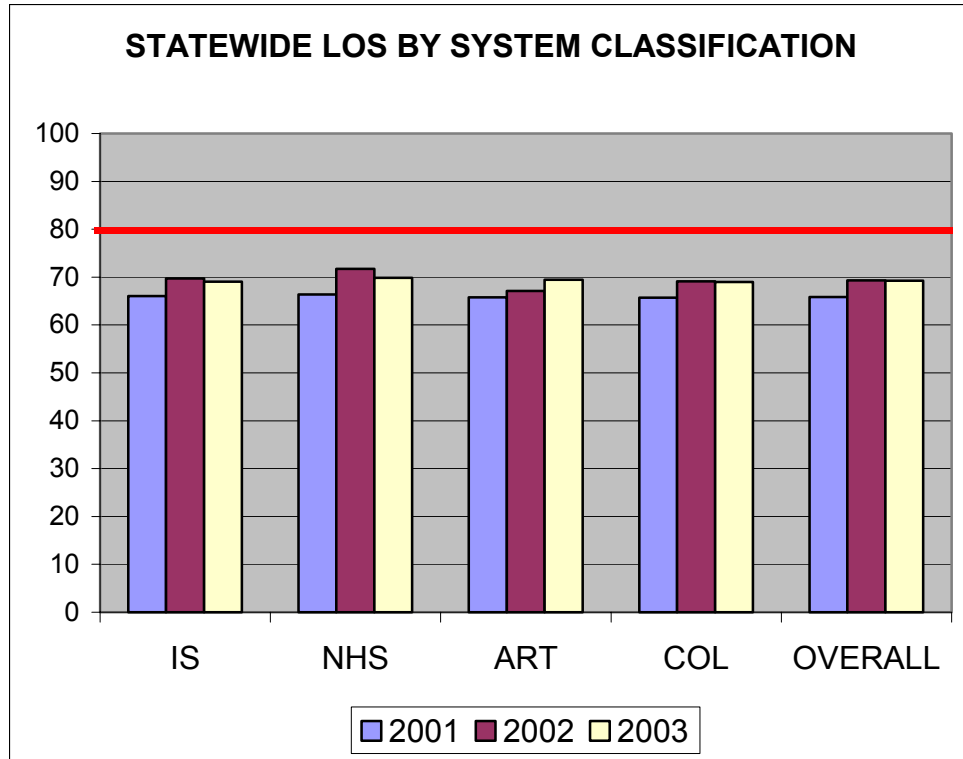
The 2003 Maintenance Performance Indicator inspections were completed statewide during June and July. These inspections evaluate the performance indicators by functional classification system (NHS, Remaining Arterials, Collectors). Performance indicators measure the level of service provided on asphalt and concrete pavements, paved and unpaved shoulders, drainage, roadsides, and traffic control. The data collected was compiled into overall level of service (LOS) ratings, which are found in this report.

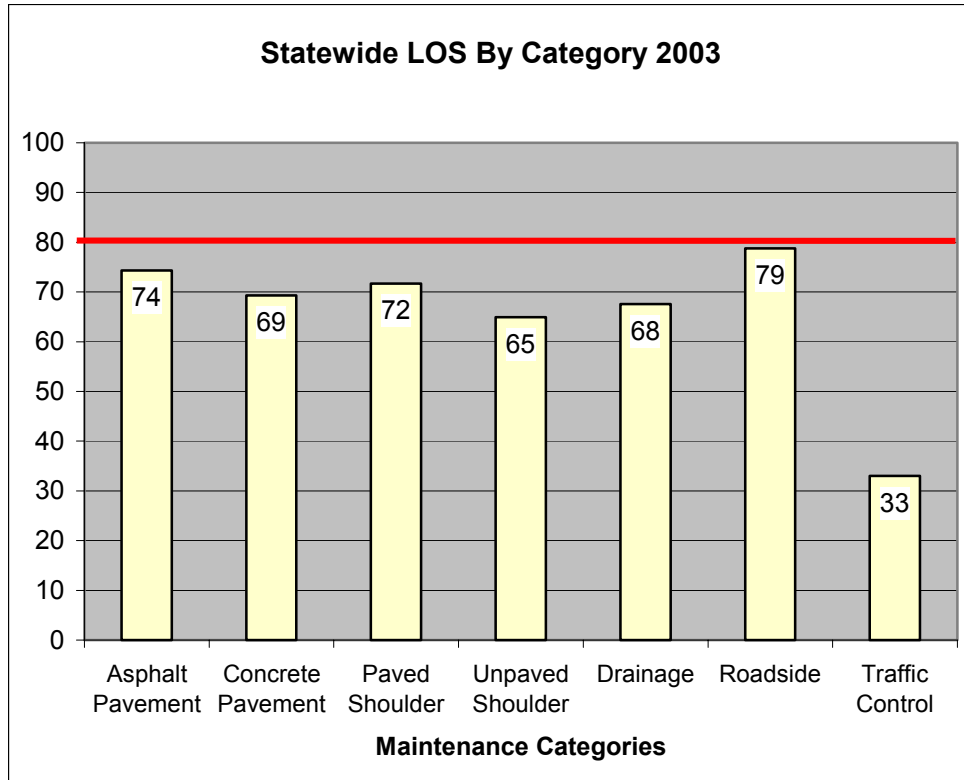
Overall, the 2003 evaluation indicates the LOS ratings were basically the same as 2002. While the LOS ratings remained comparatively level, the results still indicate the need for rehabilitation and reconstruction of pavements and shoulders in the contract construction program, especially the interstate concrete pavements. The results also show a continued need for routine and preventive maintenance programs on pavements and shoulders.

The 2003 ratings are compared to the 2001 and 2002 ratings so long term trends can start being identified. This will enable district maintenance managers to better plan and program work in specific areas.

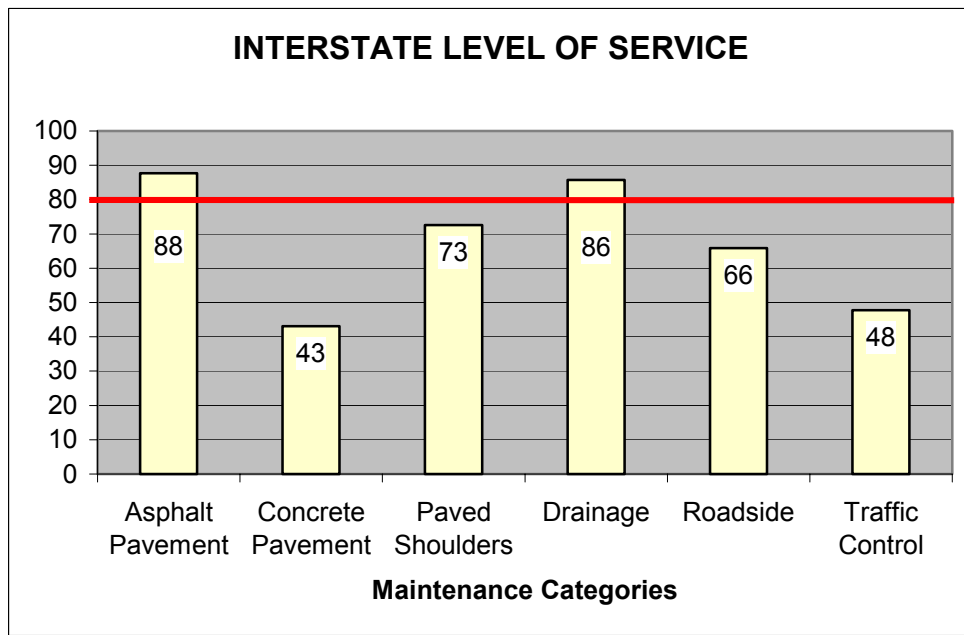


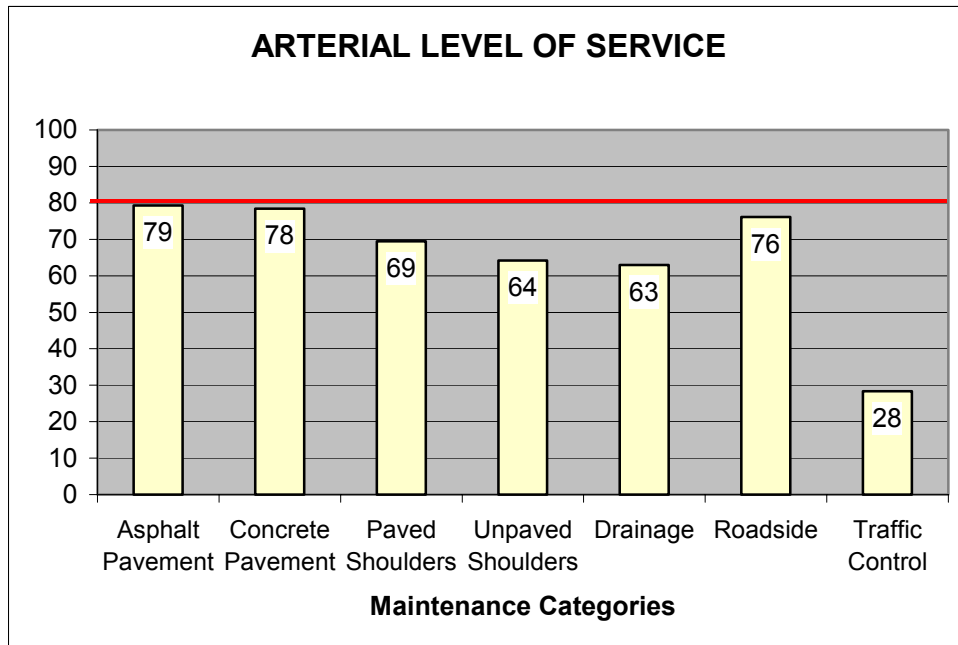
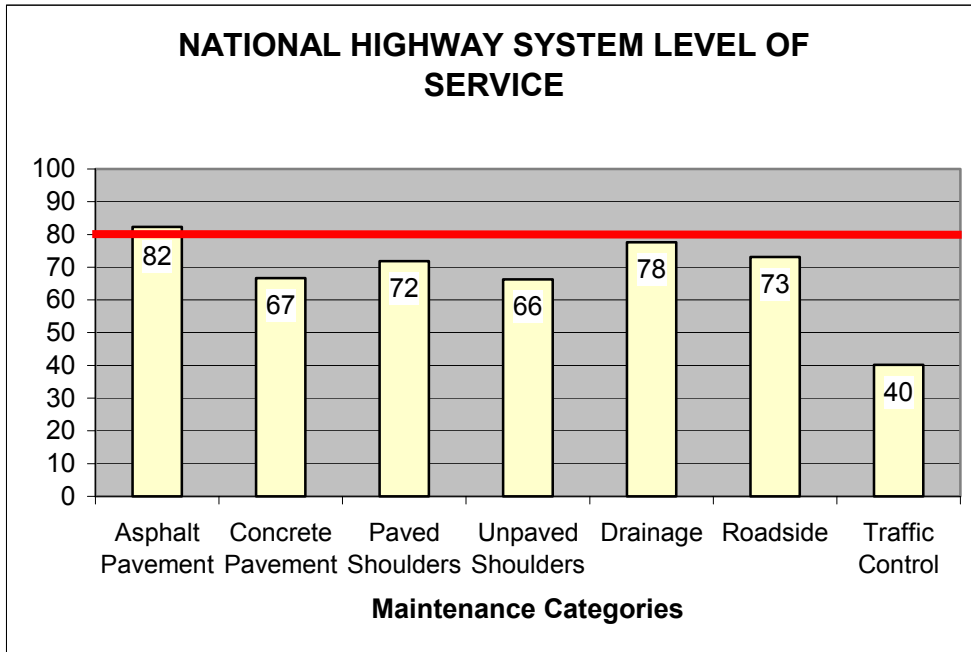
The inspection indicated a combined overall LOS of 69 as compared to the publicly perceived “good” LOS of 80. In general, all areas with the possible exception of drainage maintenance require an increase in emphasis, most notably the category of Traffic Control. The red line indicates the public’s perception of a good Level of Service (LOS) for maintenance.

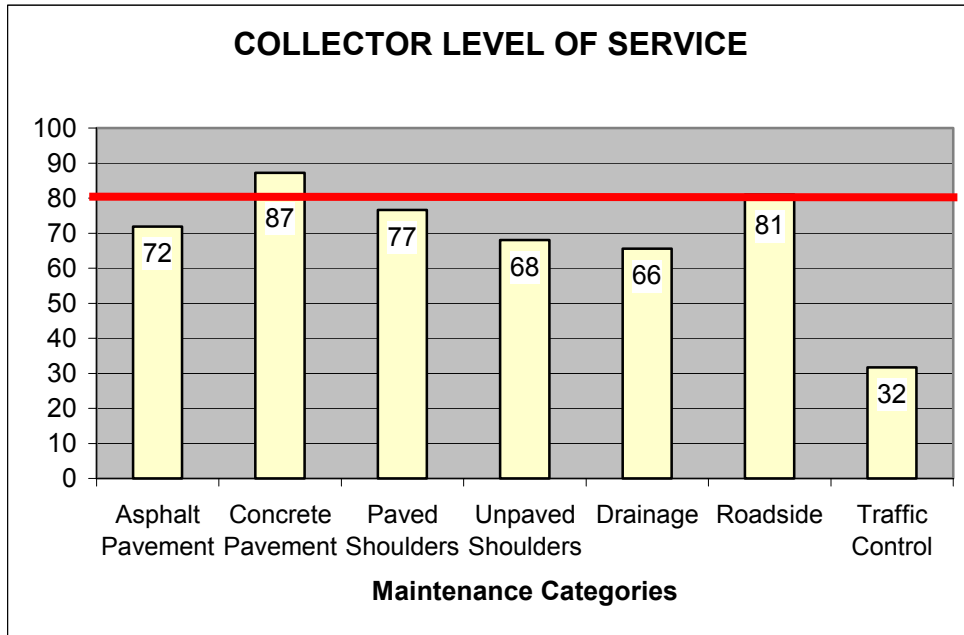




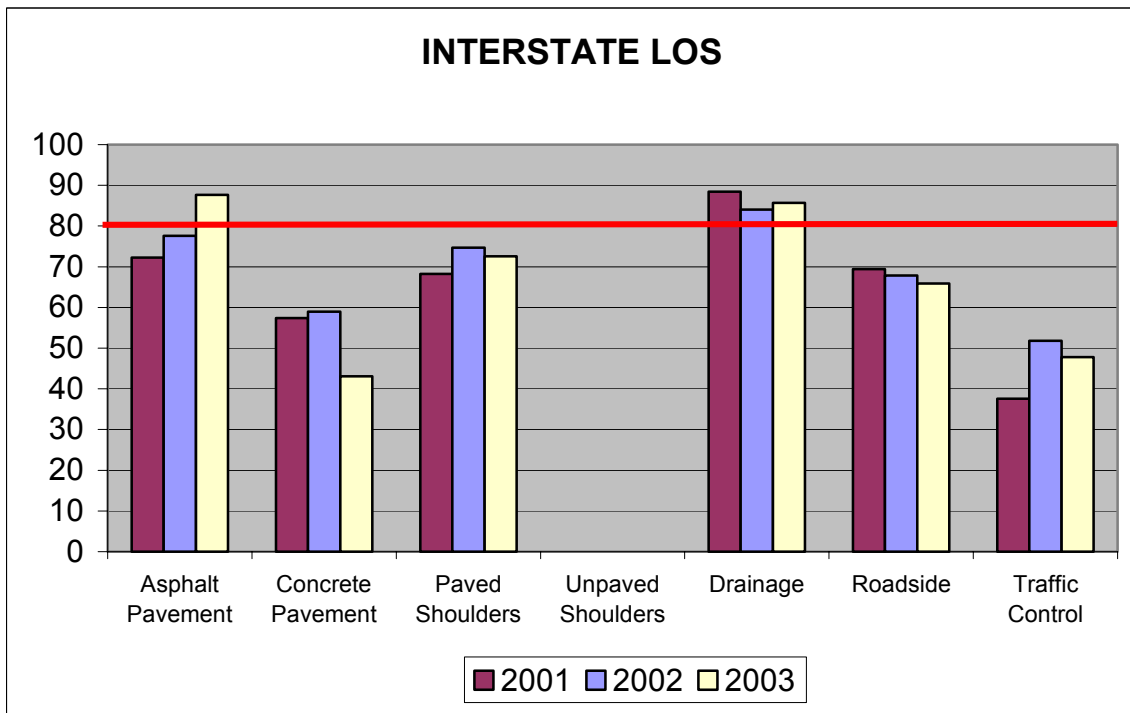
Levels of service ratings for each roadway system classification by maintenance category are as follows. Although interstate samples are included and analyzed in the National Highway System section, separate results for the interstates are also shown.

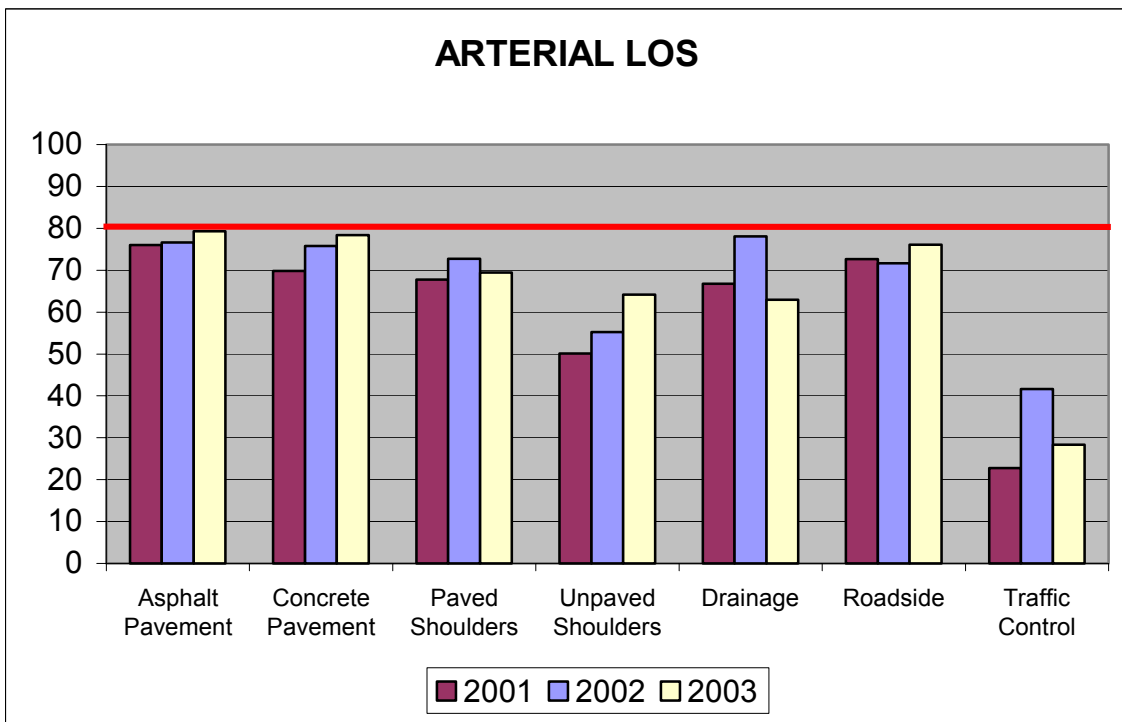
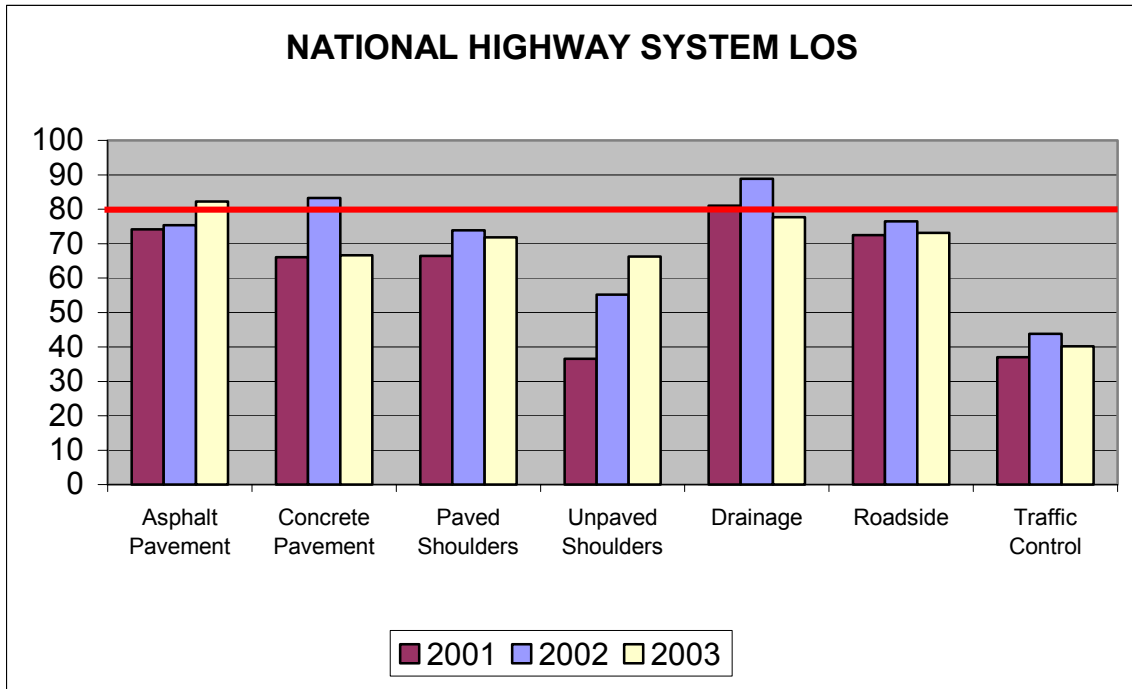


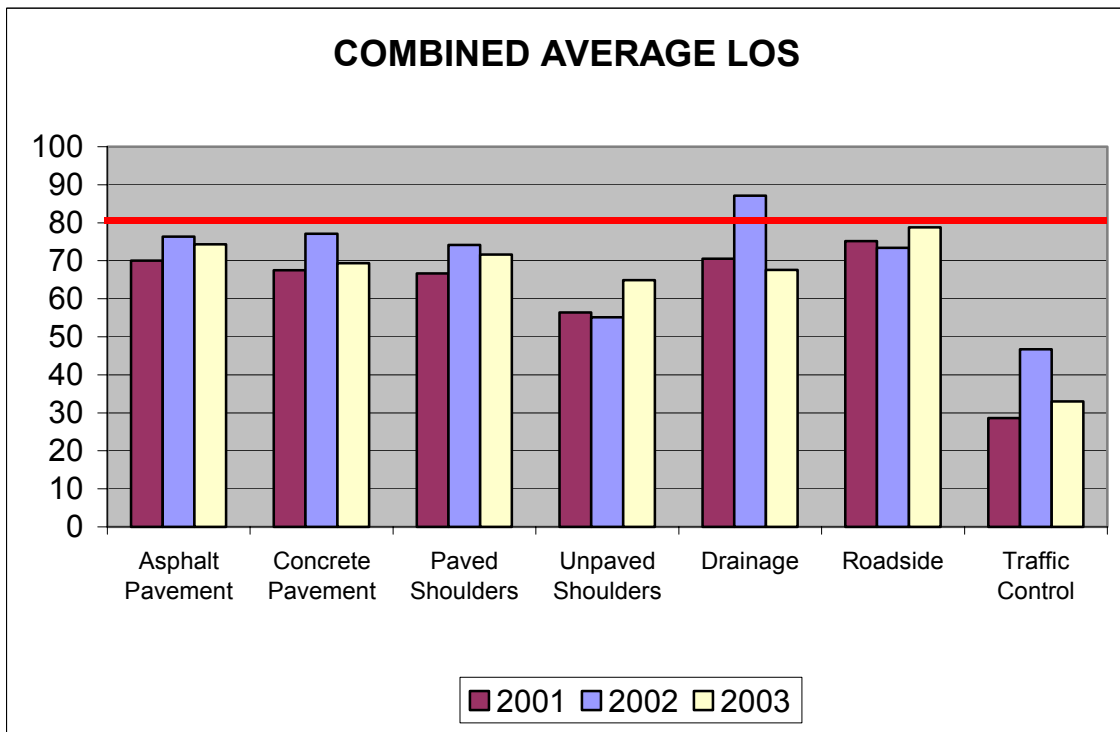
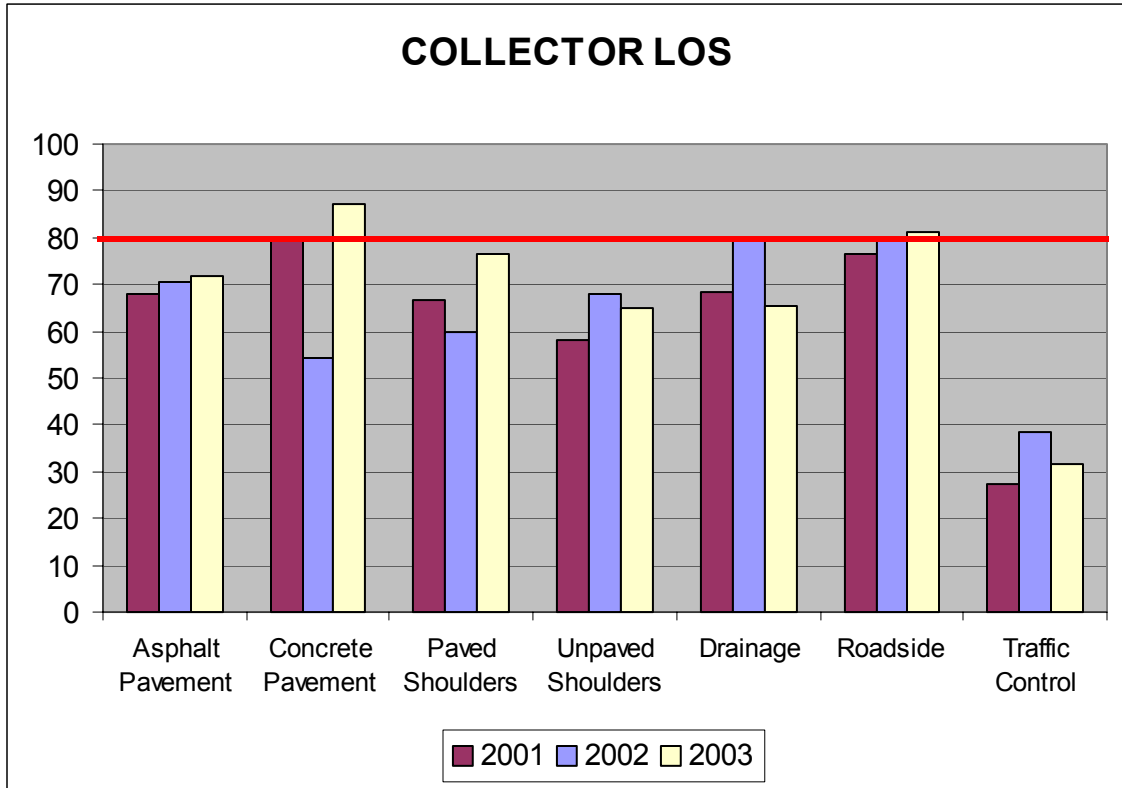




Results from the 2003 evaluation are compared to those of the 2001 and 2002 evaluations for each functional classification and the Interstate system.





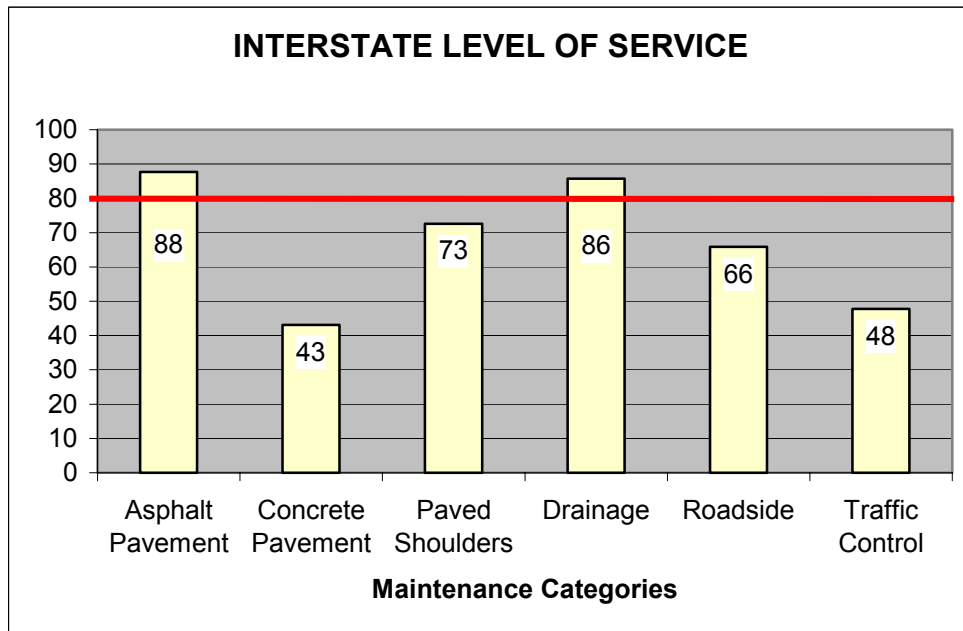


STATE SYSTEM ANALYSIS

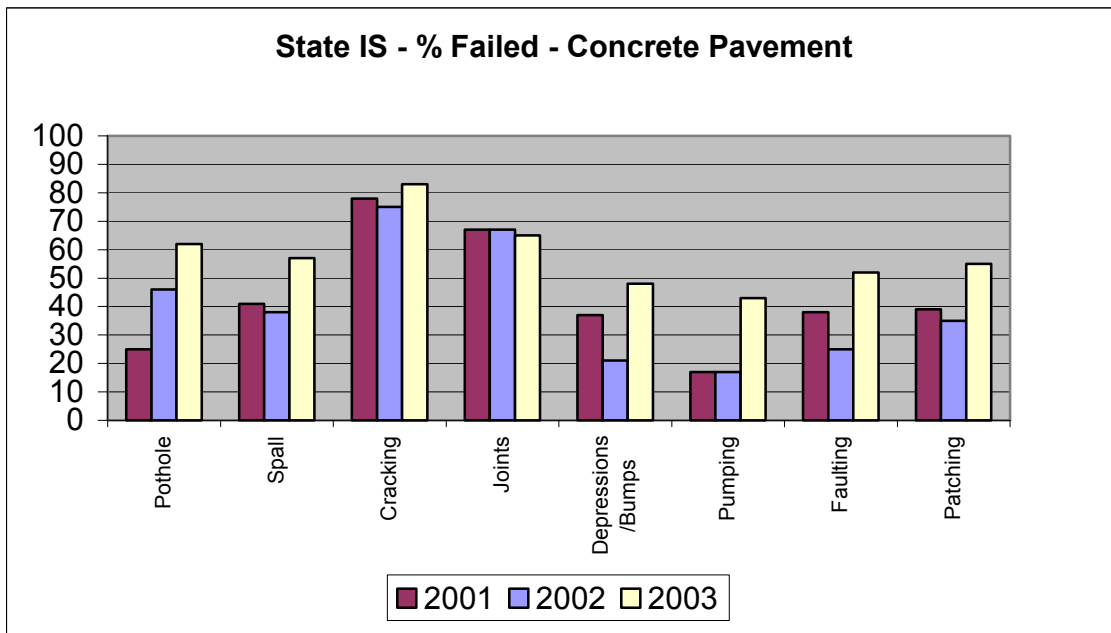
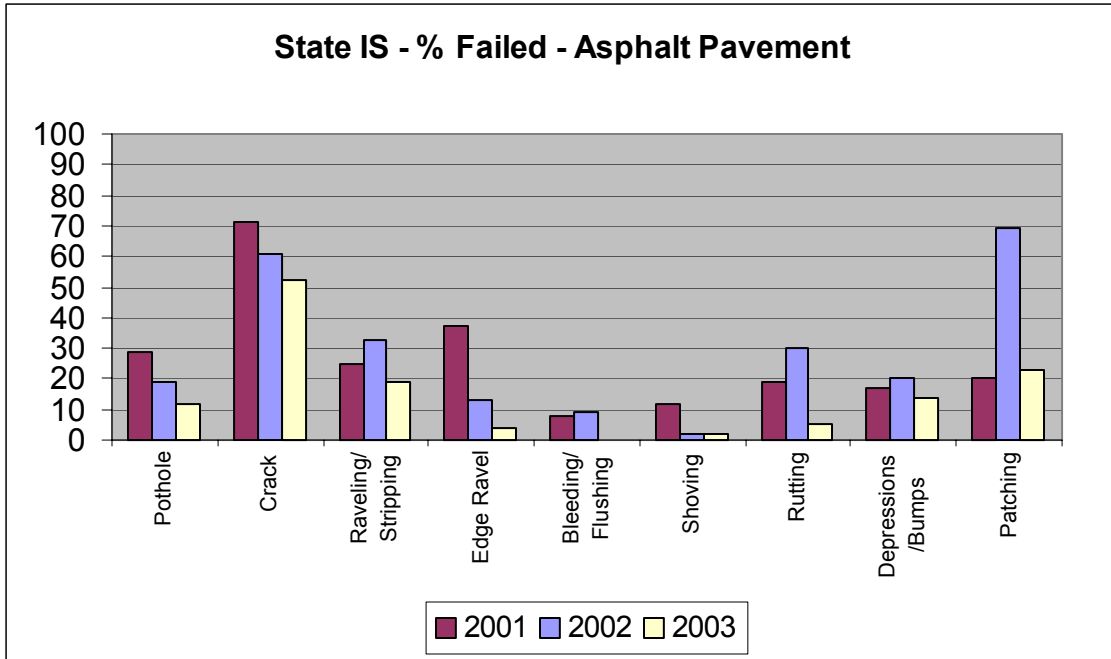
The three functional classification systems (National Highway System, Remaining Arterials, and Collectors) and the Interstate system were analyzed separately.

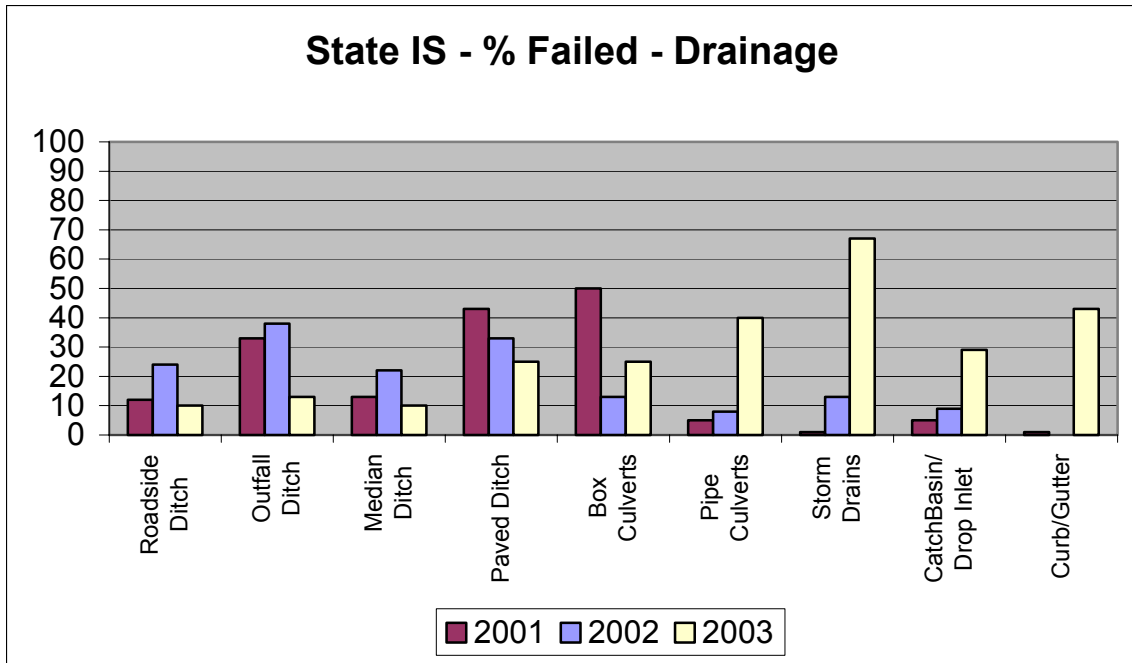
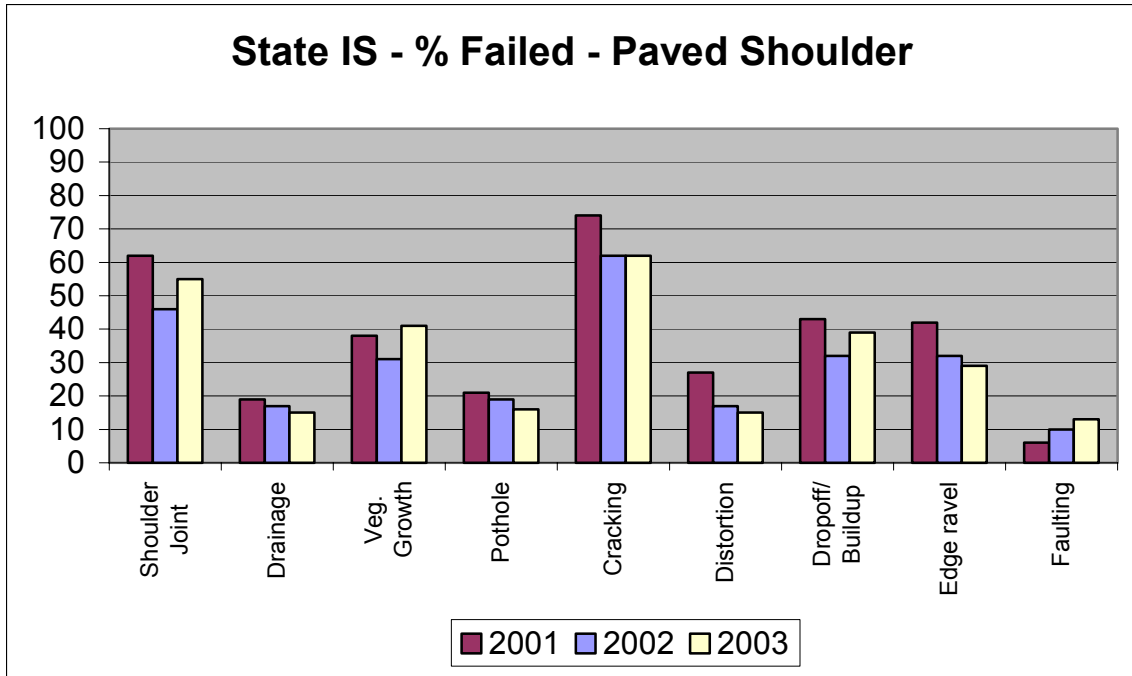
INTERSTATE SYSTEM

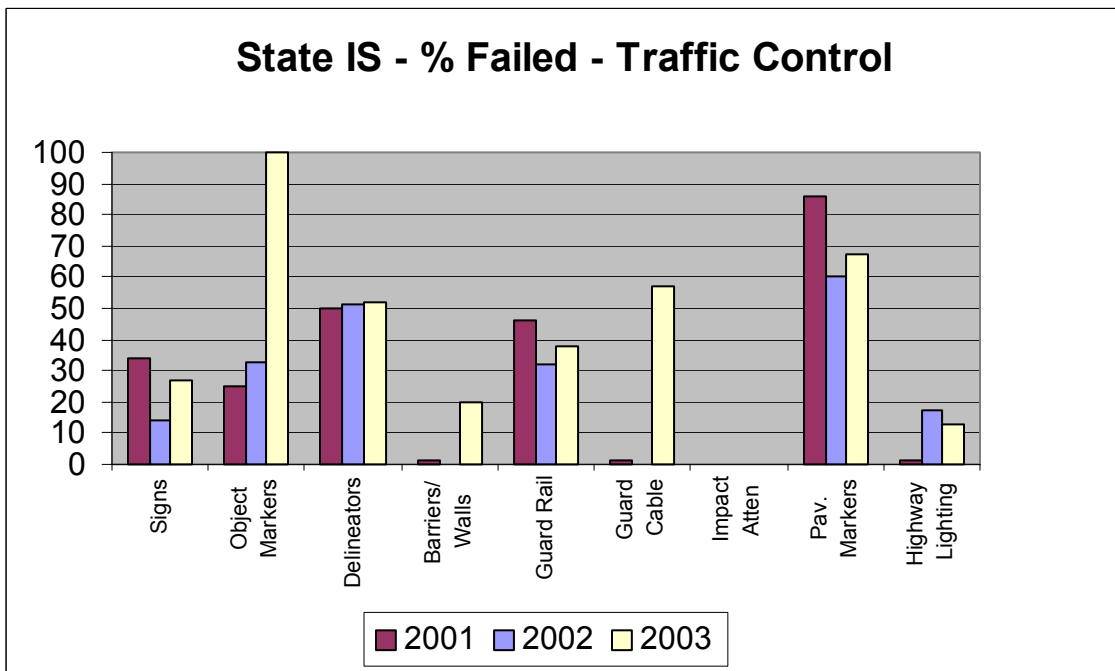
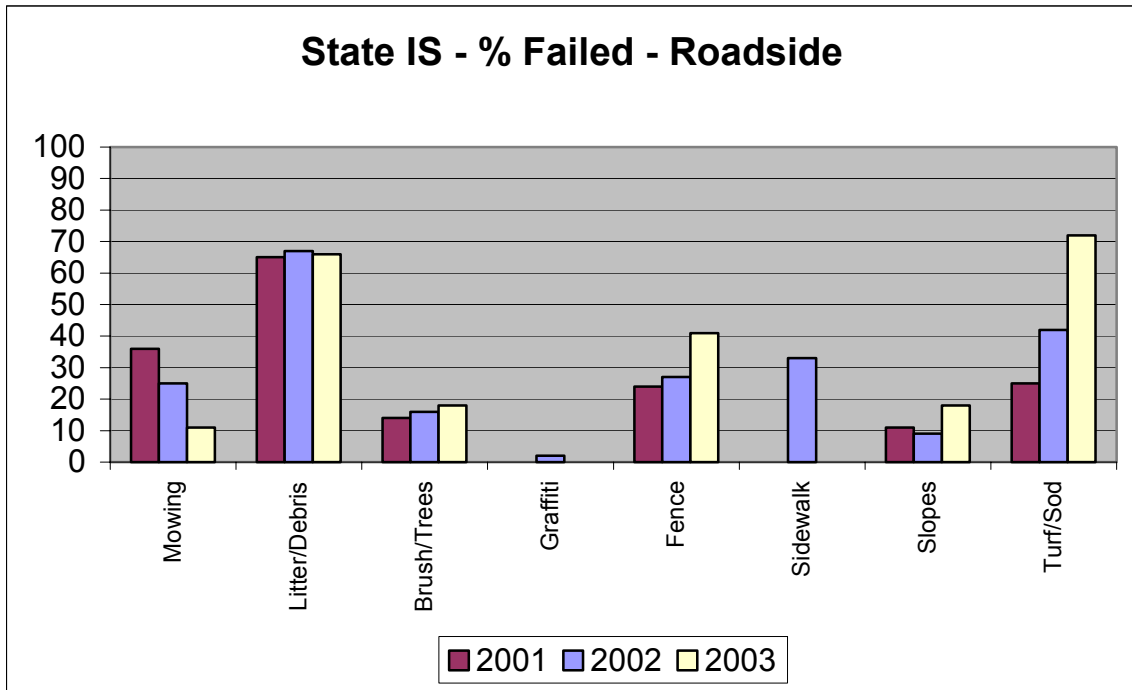
Although the Interstate system samples were included and analyzed in the National Highway System section, separate results for the Interstates are also shown.



The following charts detail the percent failure for each defect of the maintenance categories on the Interstate system. The 2001 and 2002 data are also shown for comparison purposes. Absence of percent failure for a particular distress indicates the particular feature was not present in the inspection sample or that none of the samples inspected received a failing rating.







INTERSTATE CONCLUSIONS

The inspection data shows cracking to be an extensive problem on these routes on both asphalt and concrete pavements. The performance criteria for interstate pavement cracking are the pavements shall be free of unsealed cracks greater than 0.25 inch in width. A greater emphasis should be placed on sealing cracks on both pavements and shoulders.

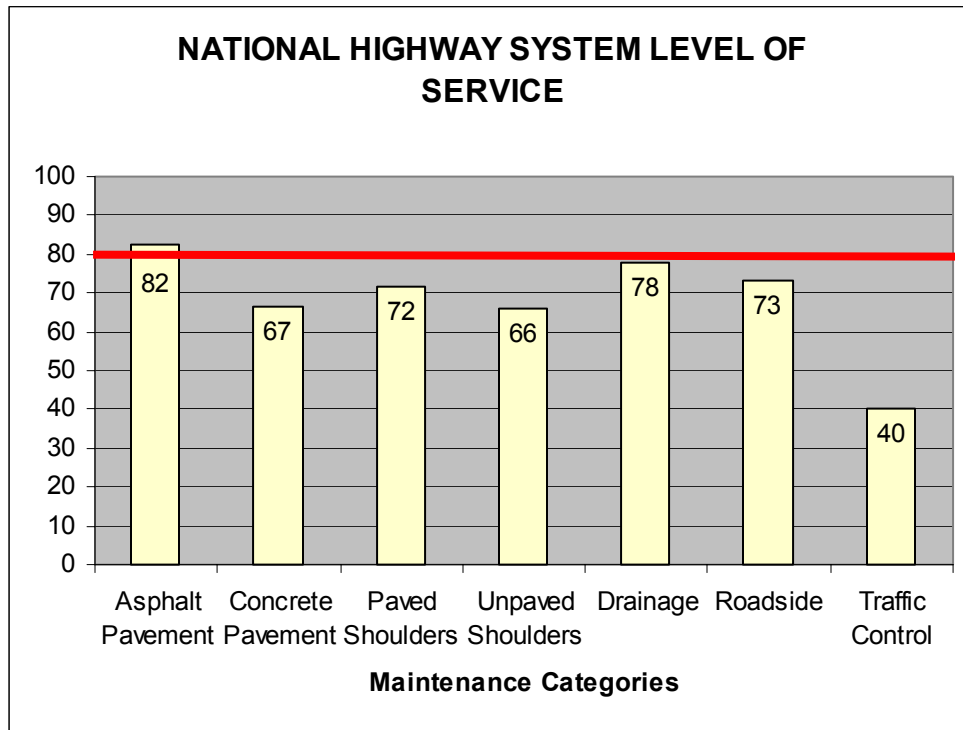
Concrete pavements should see more work on repairing potholes and joints.

Shoulder maintenance should concentrate on keeping the longitudinal joint between the edge of pavement and the paved shoulder sealed, as well as the cracks.

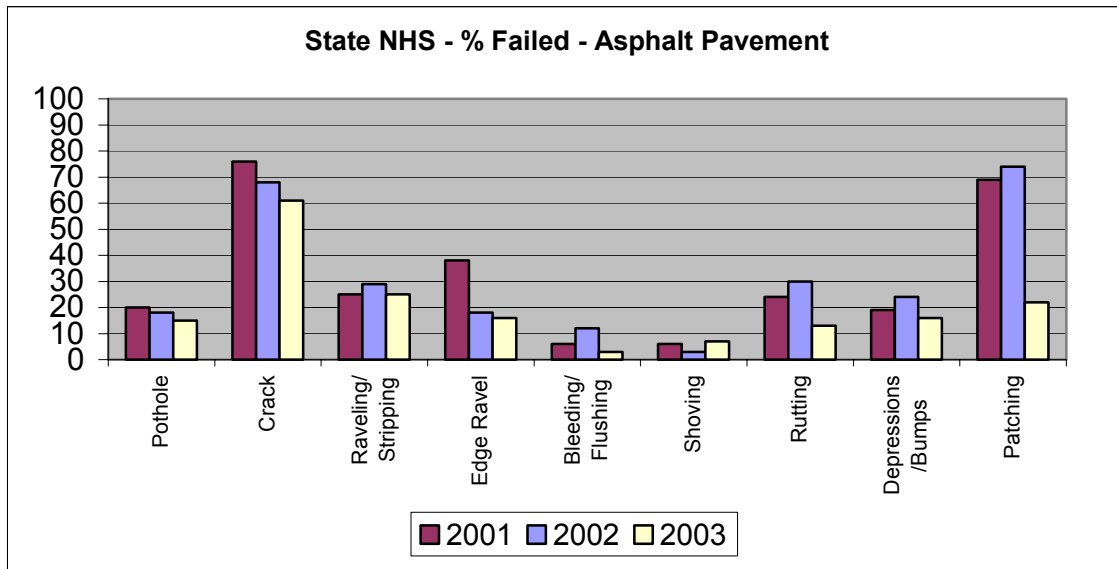
Litter continues to be a problem on interstate roadsides.

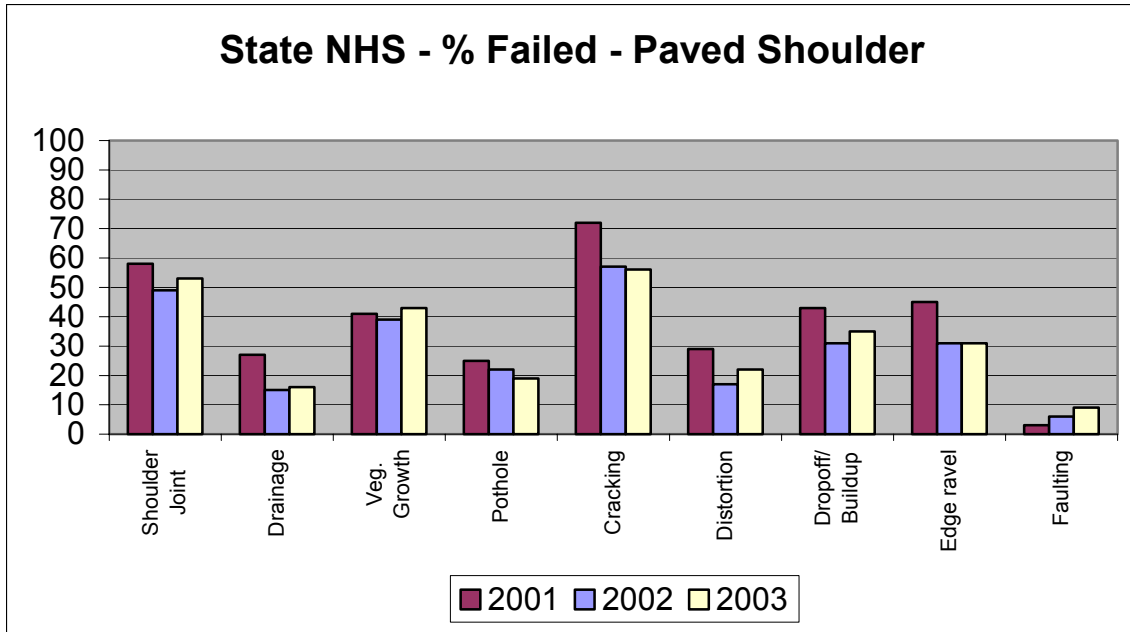
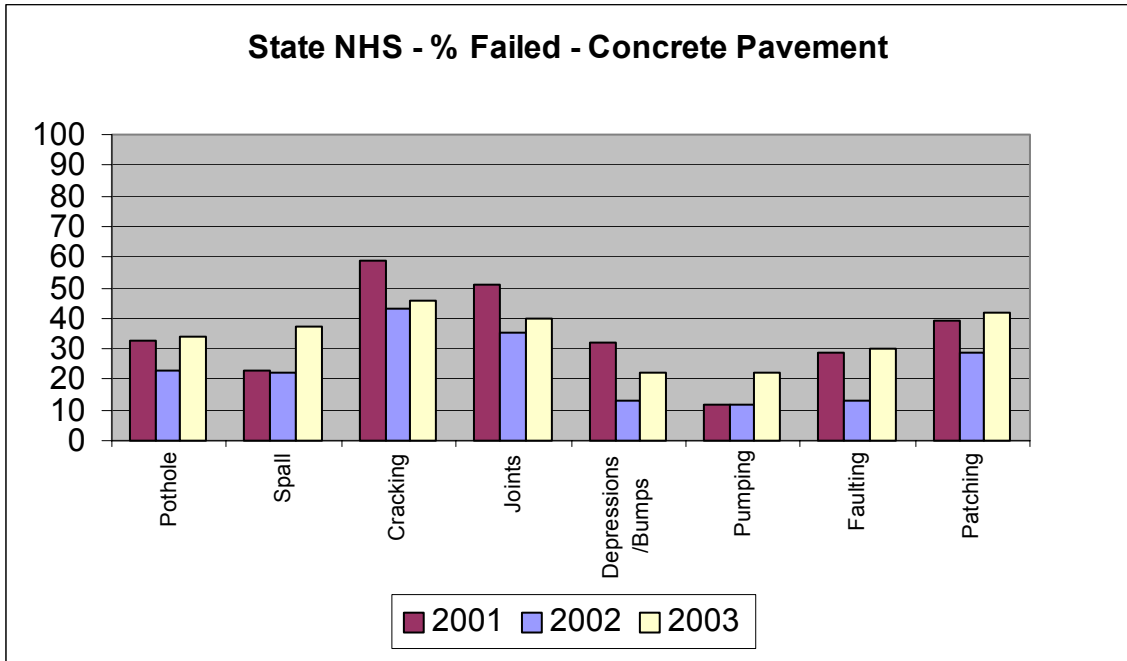
Traffic control repair work should focus on delineators, guardrail, guard cable, and pavement marking.

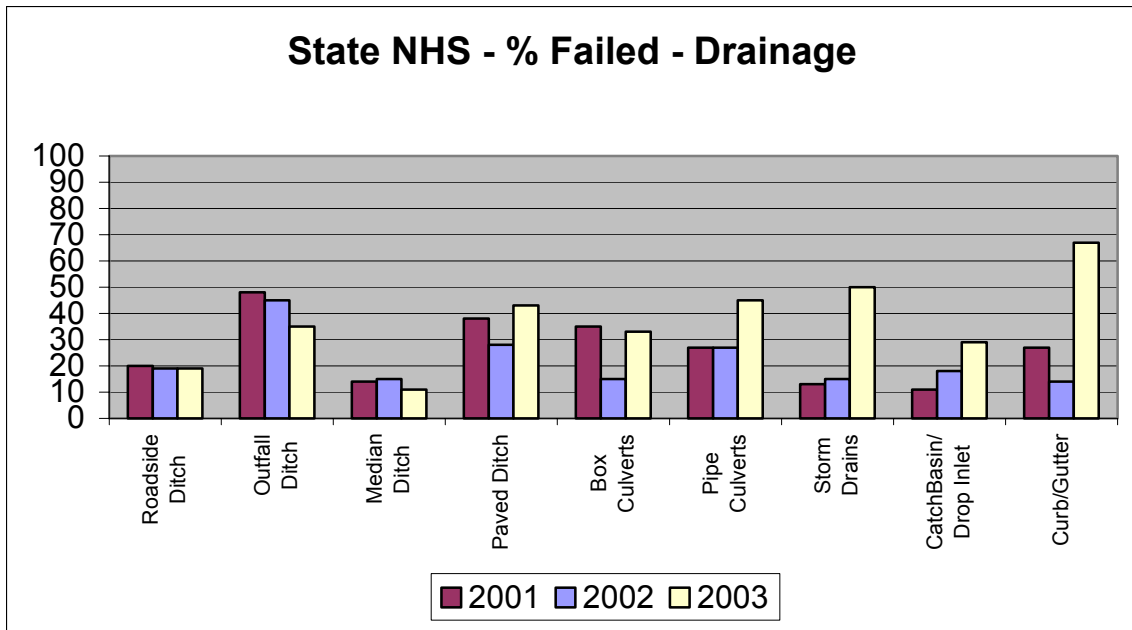
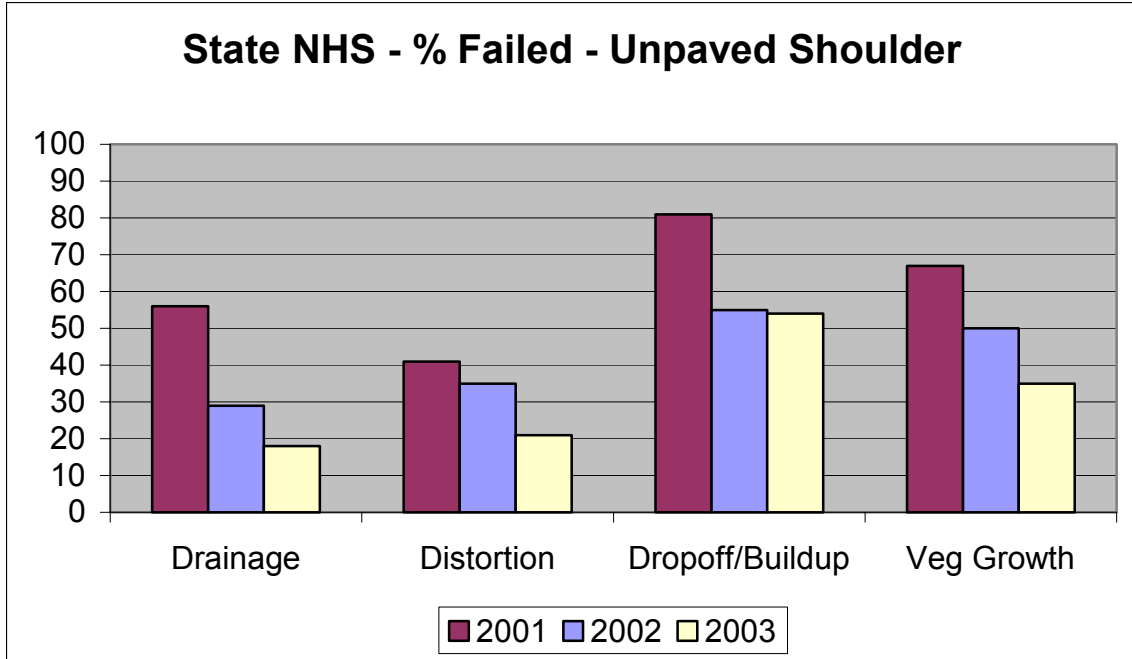
NATIONAL HIGHWAY SYSTEM

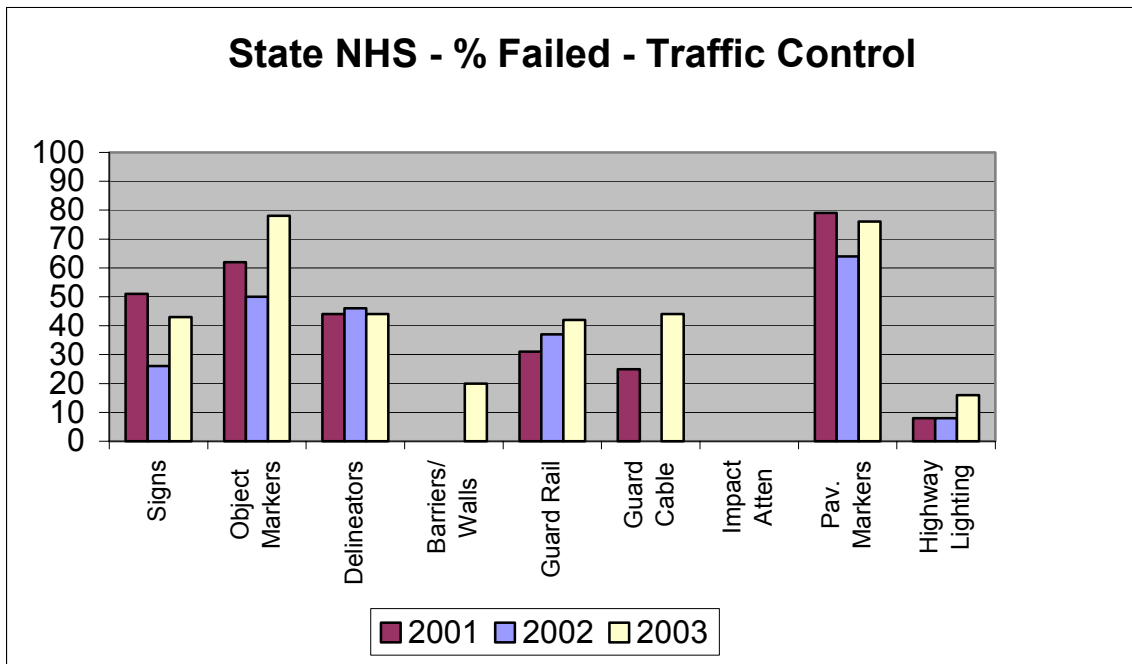
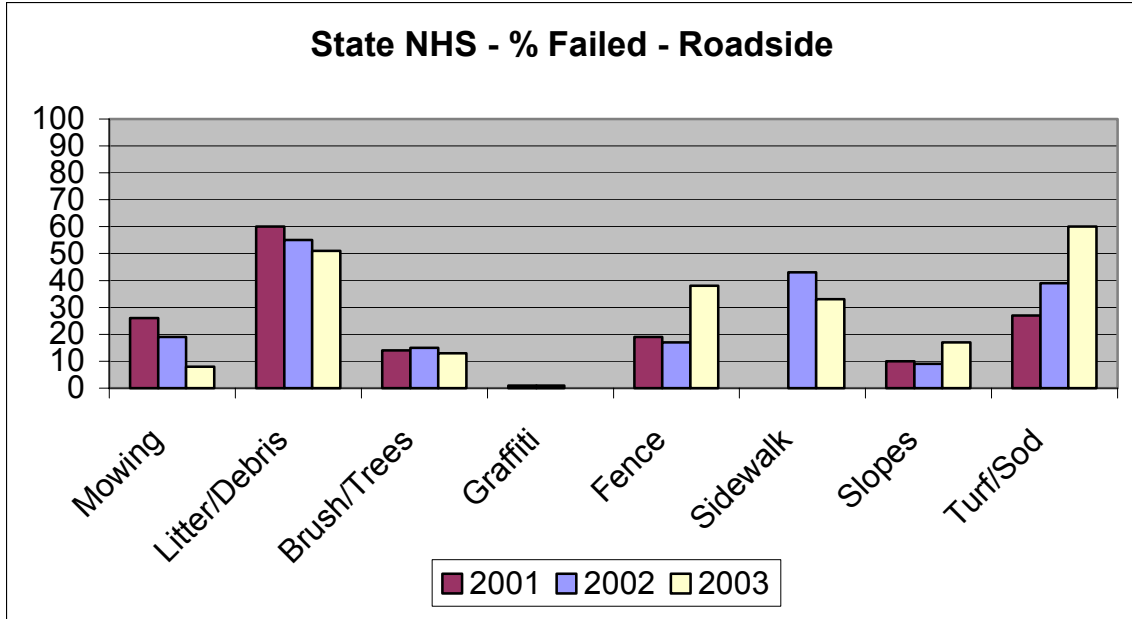


The following charts detail the percent failure for each defect for the maintenance categories on the National Highway System. The 2001 and 2002 data are also shown for comparison purposes. Absence of percent failure for a particular distress indicates that the particular feature was not present in the inspection sample or that none of the samples inspected received a failing rating.









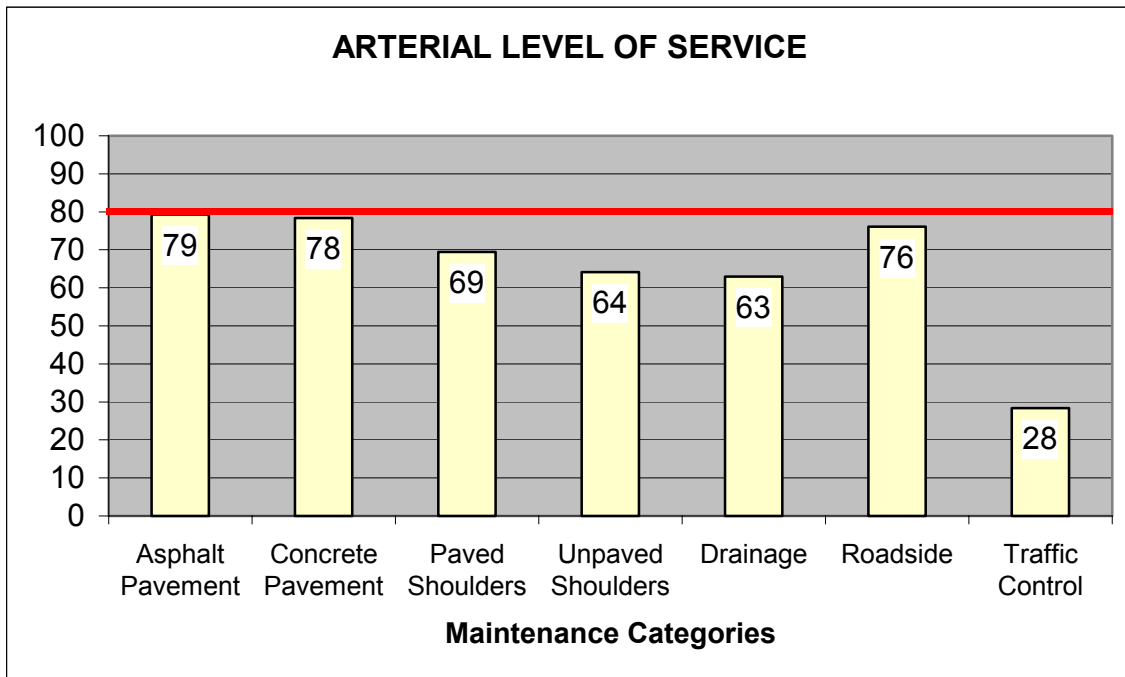
NHS CONCLUSIONS

The inspection data shows cracking to be an extensive problem on these routes on both asphalt and concrete pavements. The performance criteria for NHS pavement cracking are the pavements shall be free of unsealed cracks greater than 0.25 inch in width. A greater emphasis should be placed on sealing cracks on both pavements and paved shoulders.

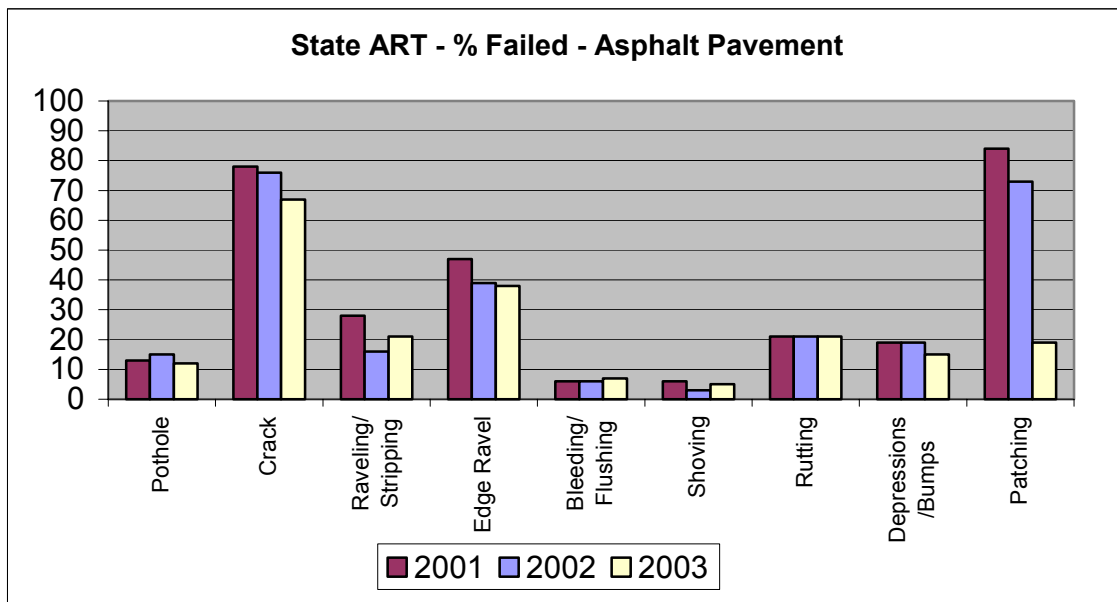
Paved shoulder maintenance should focus on increasing maintenance of the longitudinal joint between the pavement and the shoulder. The drop off or build up of unpaved shoulders still shows to be a problem area that needs attention.

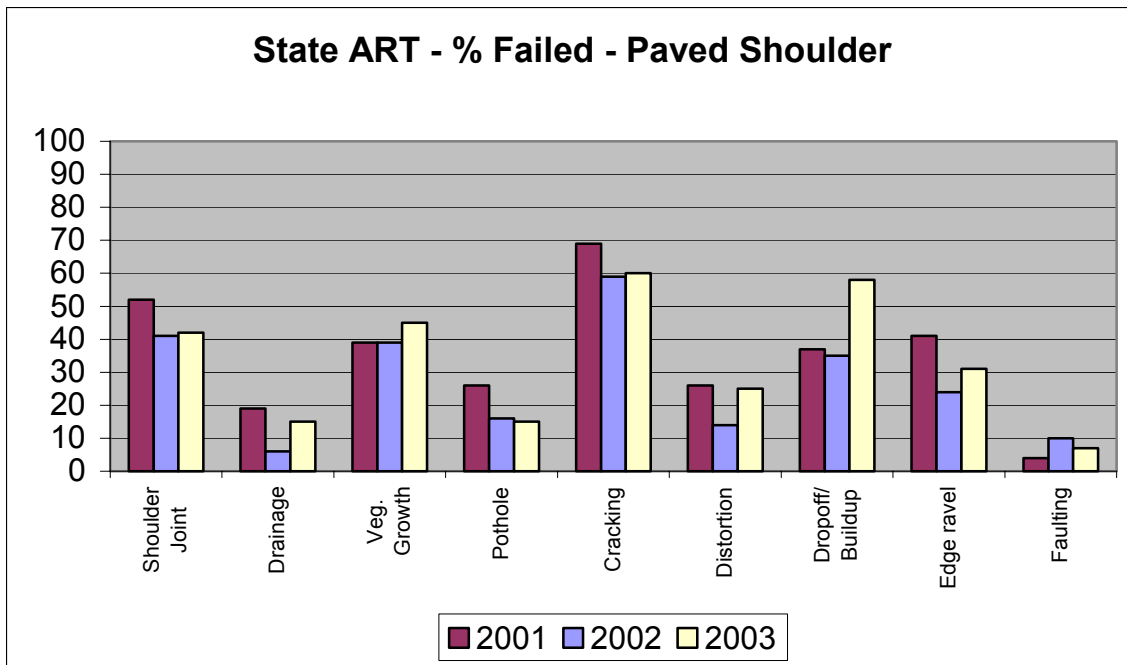
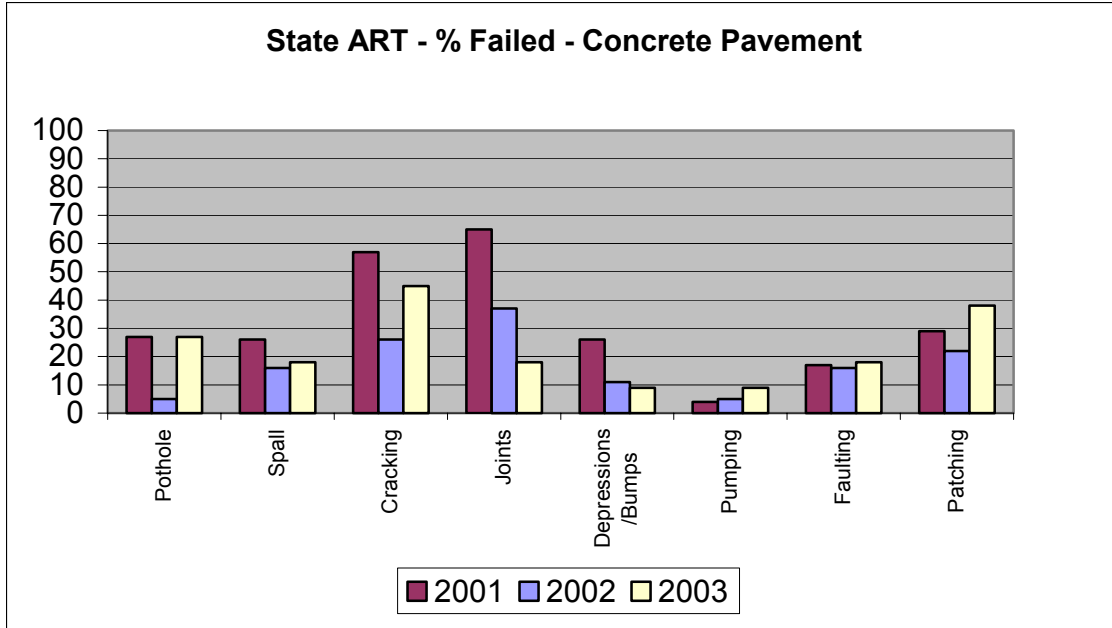
On the NHS, maintenance efforts on drainage features are just short of the expected level of service. On roadsides, the LOS approaches the desired level but added focus on litter and debris removal is warranted. For traffic control, additional maintenance emphasis should be placed on object markers and pavement marking.

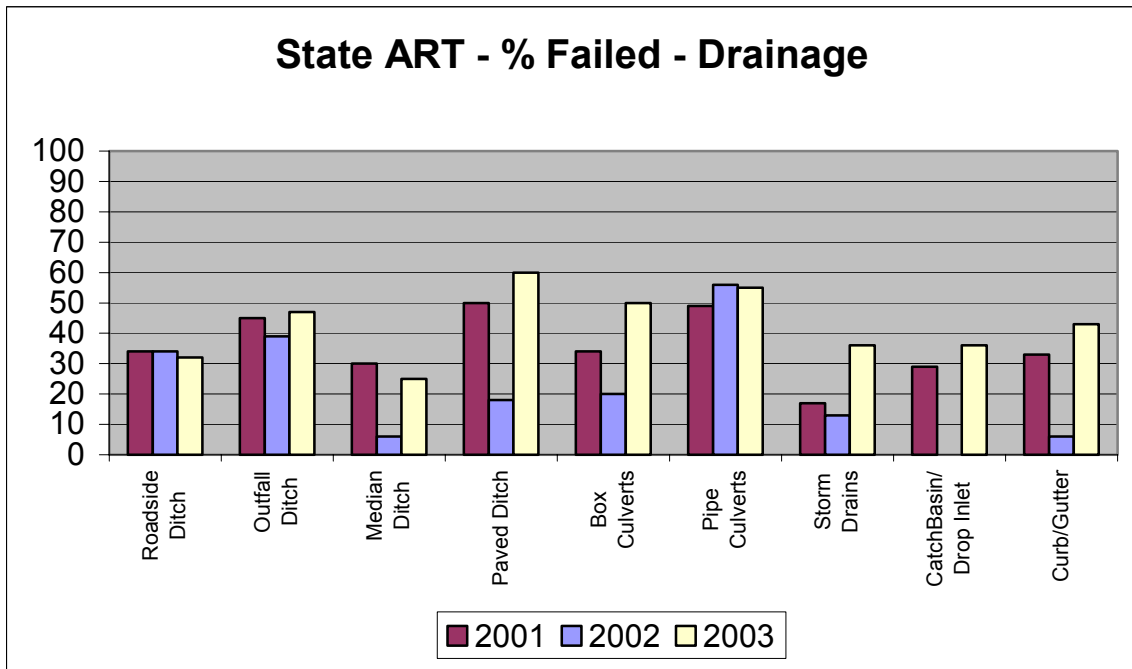
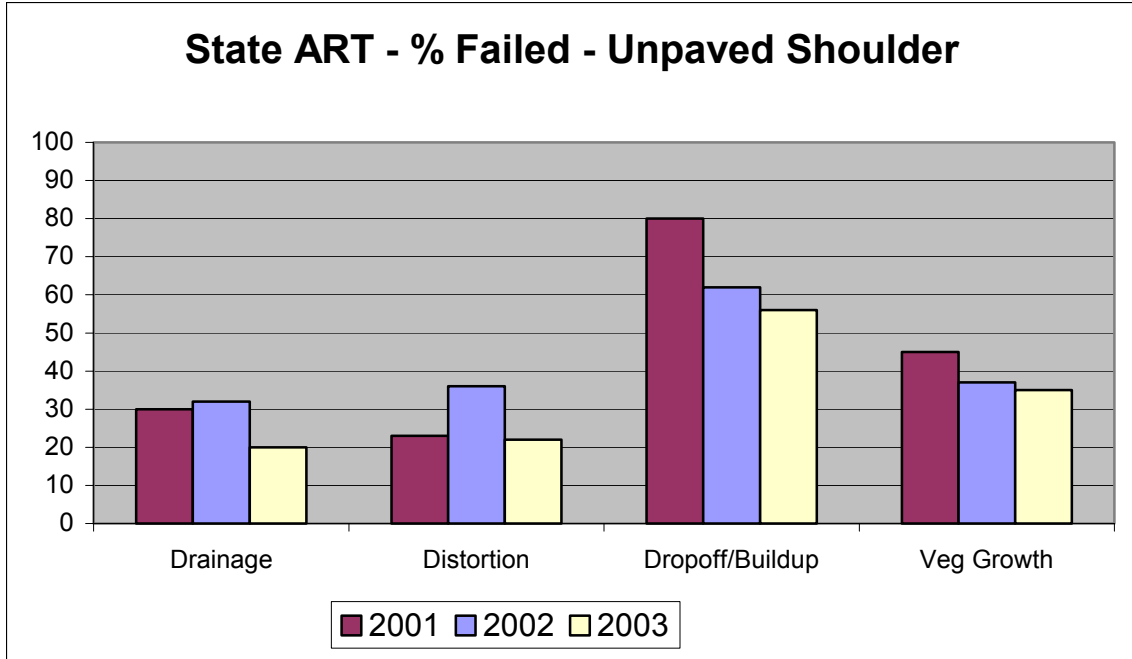
REMAINING ARTERIALS NOT INCLUDED IN NHS

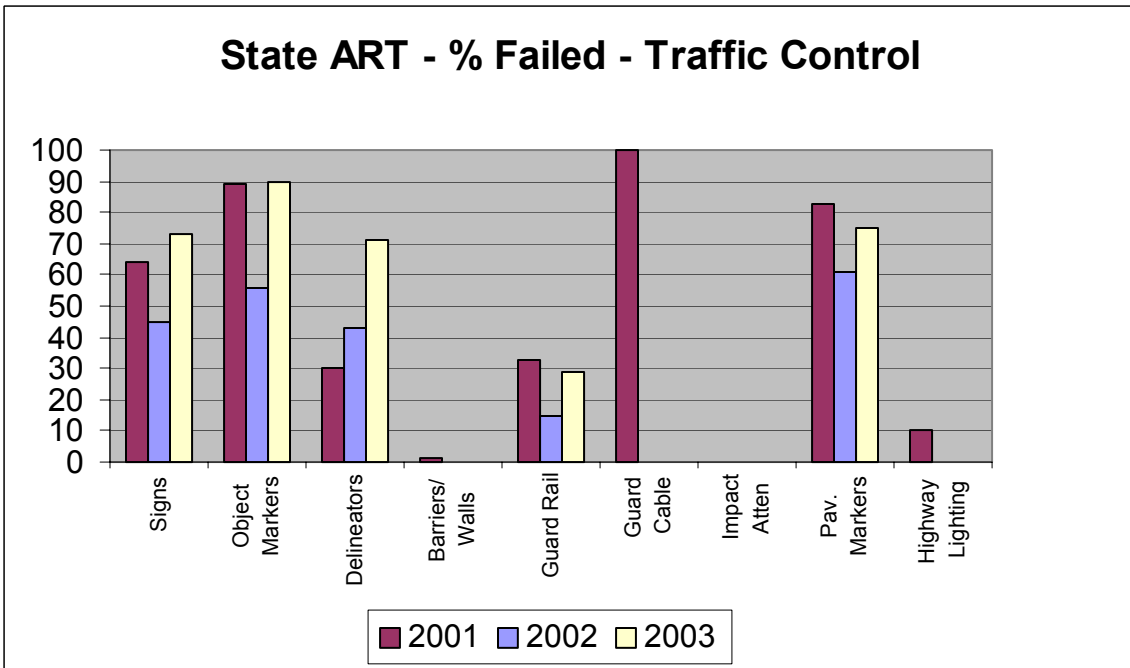
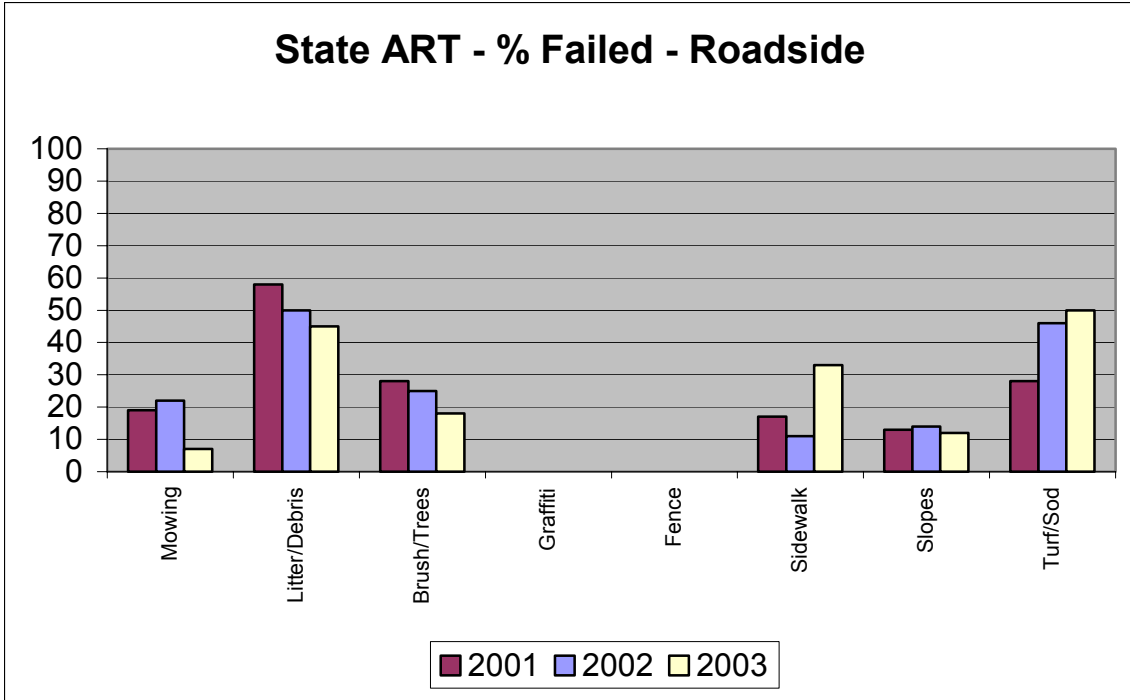


The following charts detail the percent failure for each defect for the maintenance categories on the Remaining Arterials not included in the NHS. The 2001 and 2002 data are also shown for comparison purposes. Absence of percent failure for a particular distress indicates that the particular feature was not present in the inspection sample or that none of the samples inspected received a failing rating.









ARTERIAL CONCLUSIONS

While the overall level of service ratings for asphalt and concrete pavements are approaching the expected level of service, the inspection data shows cracking to be an extensive problem on these routes on both asphalt and concrete pavements. The performance criteria for arterial pavement cracking are the pavements shall be free of unsealed cracks greater than 0.25 inch in width. A greater emphasis should be placed on sealing cracks on both pavements and paved shoulders.

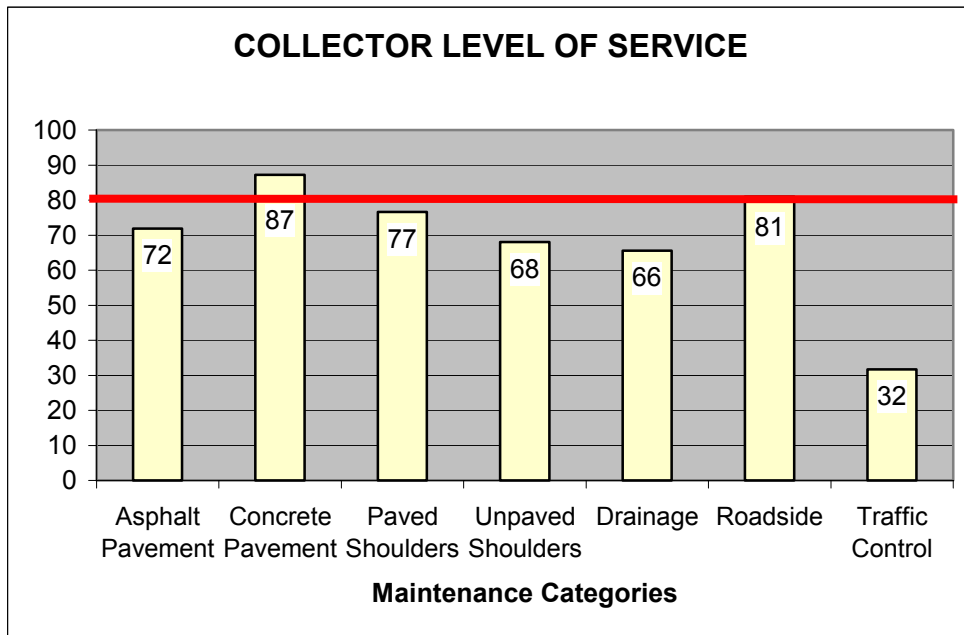
The drop off and/or buildup between the paved shoulder and the edge of pavement indicates more effort is needed in this area, as well as repairs to the longitudinal joint between the shoulder and pavement.

While the drop off and/or buildup between unpaved shoulders and the pavement have shown a reduction in the percent failures, continued work in this area is still warranted.

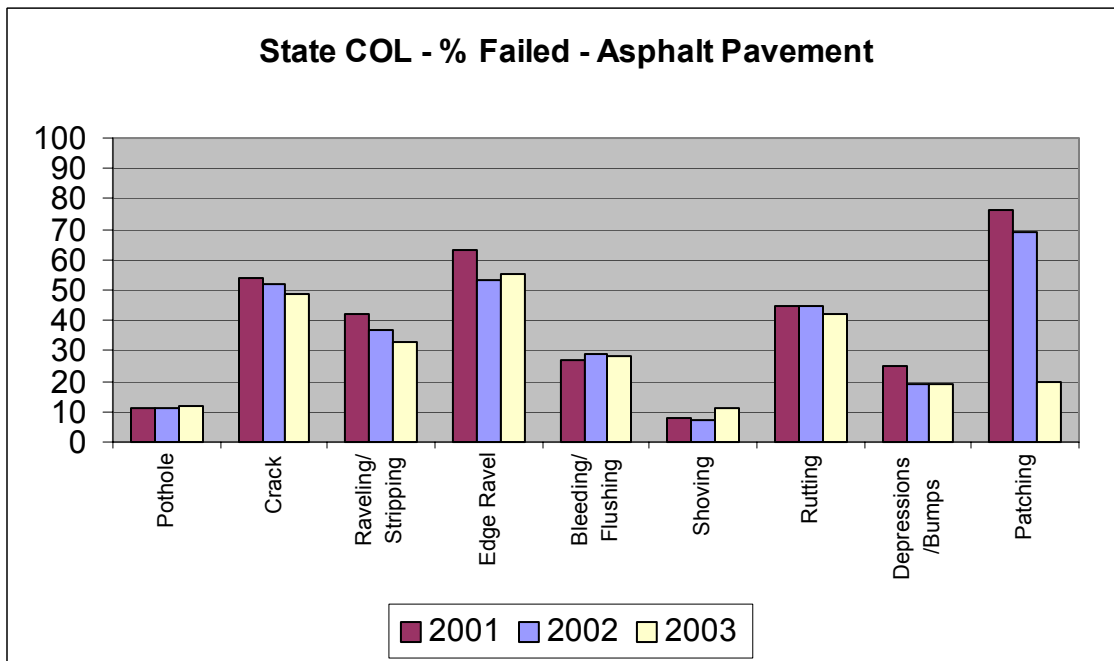
Drainage maintenance should focus on outfall and paved ditches as well as maintenance of box and pipe culverts. Roadside maintenance approaches the desired level of service but additional efforts need to be made in litter and debris removal along with maintenance of the turf and sod on the right of way.

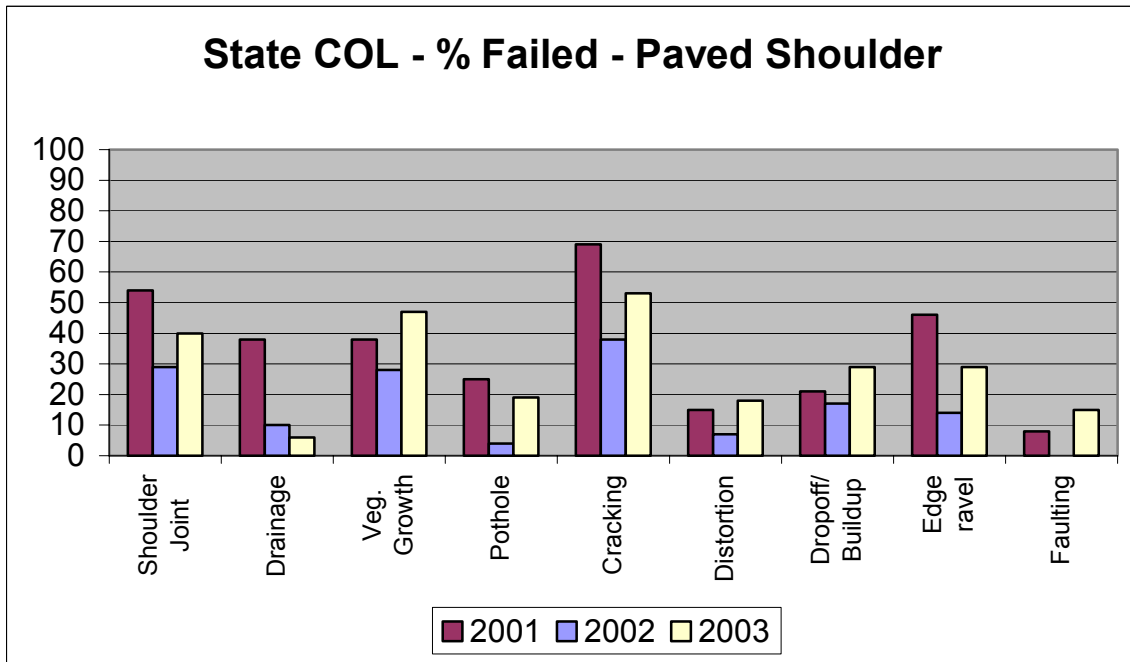
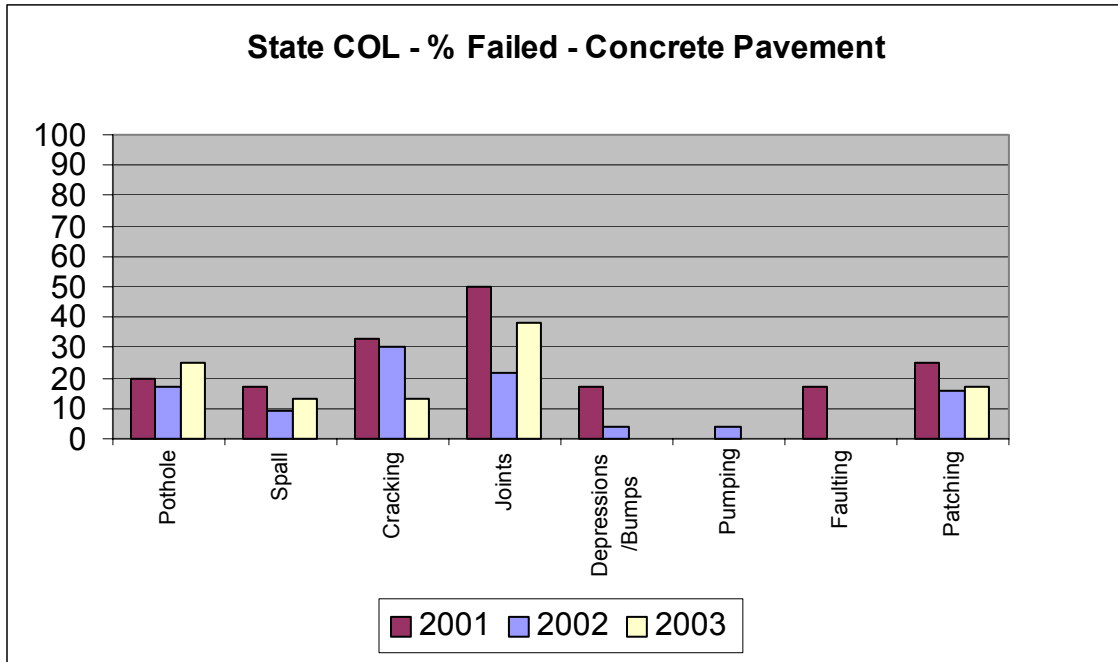
Traffic control requires additional emphasis on signing, object markers, delineators and pavement marking.

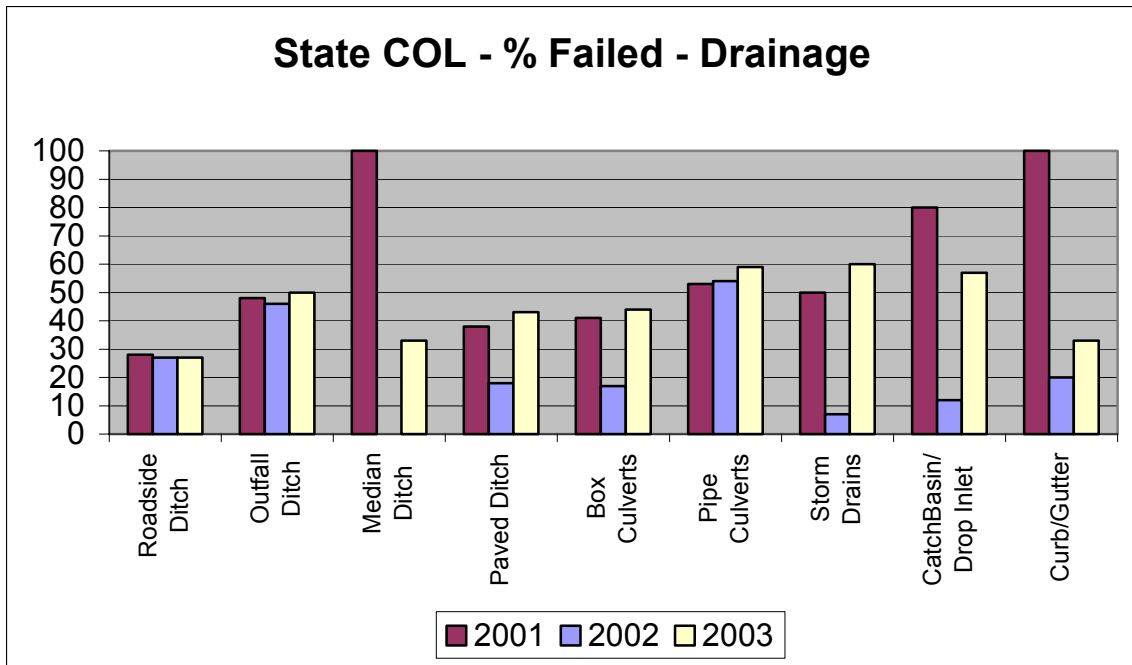
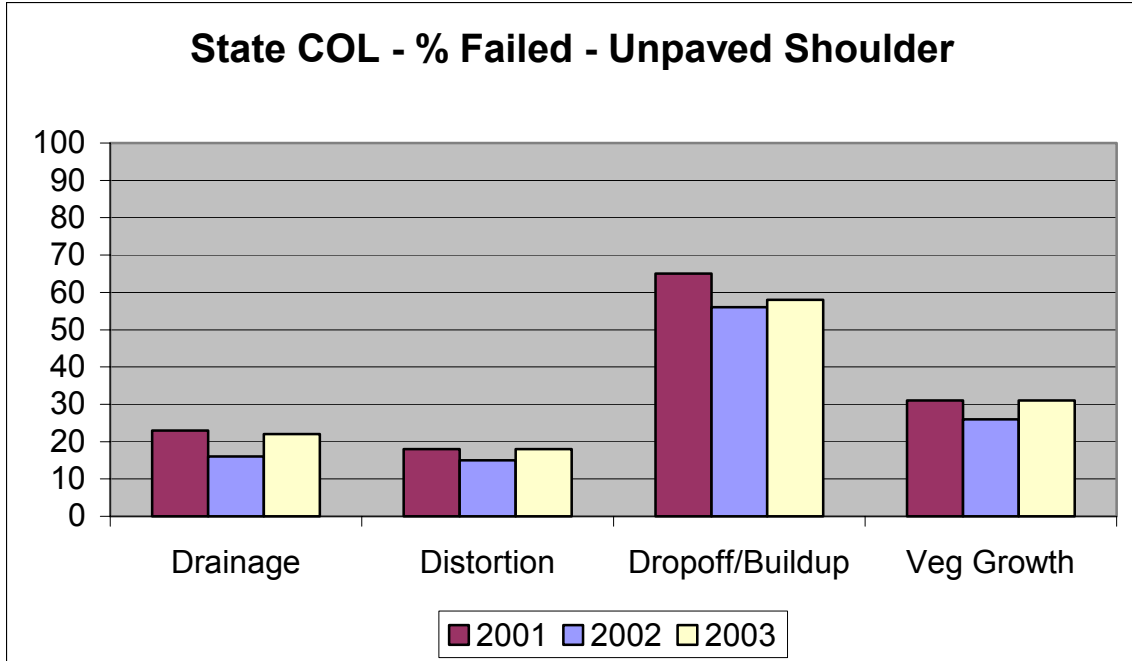
COLLECTORS

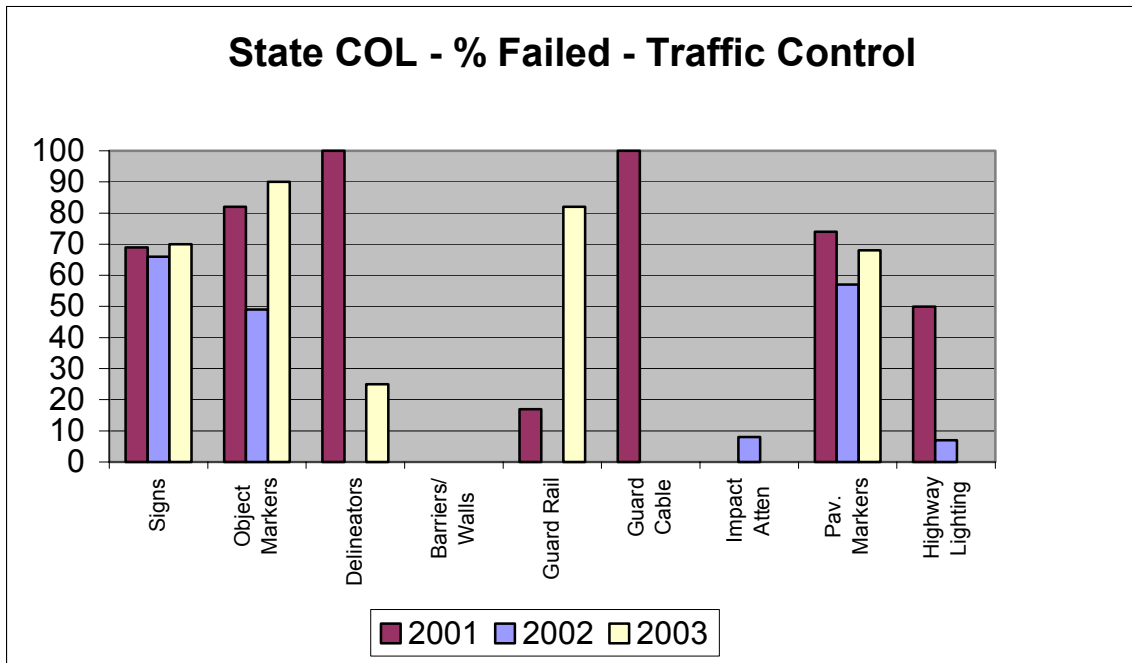
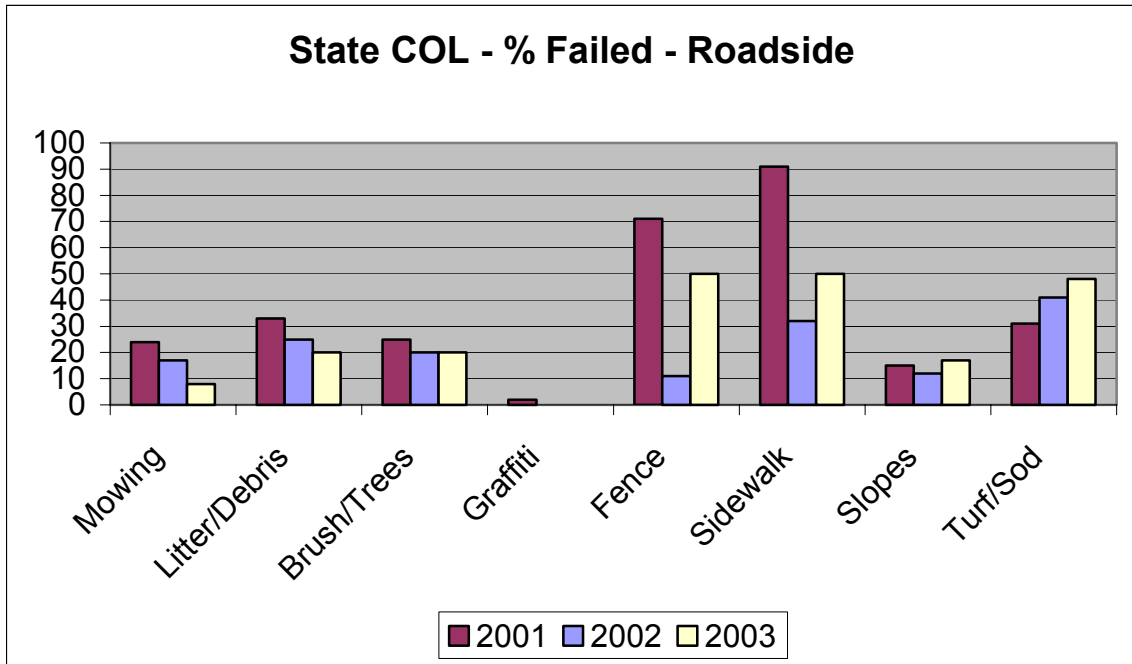


The following charts detail the percent failure for each defect for the maintenance categories on the Collector routes. The 2001 and 2002 data are also shown for comparison purposes. Absence of percent failure for a particular distress indicates that the particular feature was not present in the inspection sample or that none of the samples inspected received a failing rating.









COLLECTOR CONCLUSIONS

Asphalt pavement maintenance should focus on edge raveling, cracking and rutting. Concrete pavement level of service is above the desired level but needed maintenance work includes joint and pothole repairs.

Needed emphasis on paved shoulder work includes sealing cracks and the longitudinal joint between the pavement and the paved shoulder.

Unpaved shoulders still require additional focus on the elimination of edge drop-offs and/or buildups.

Drainage work on collector routes should focus on pipe culverts, storm drains, catch basins/drop inlets and outfall ditches.

Roadsides are slightly above the desired level of service. However, emphasis could be placed on fence repairs and turf/sod maintenance.

The traffic control emphasis should be placed on signs, object markers, guardrails and pavement markings.

DISTRICT DETAIL

Each district's results for the NHS, Arterials and Collectors are charted in comparison to the statewide average LOS. In addition, the percentage of failures is graphed for distresses by category and by feature. This information will allow individual districts to compare the LOS they provide to the public in comparison to the statewide LOS and to identify areas where their maintenance efforts should increase.