



LEAGUE  
OF CALIFORNIA  
CITIES

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**APPENDIX A**

**Data Collection**





This appendix describes in detail the data collection efforts for this update. The goal was to ensure participation by all 58 Counties and 480 Cities.

### ***A.1 Outreach Efforts***

As with the 2008 study, significant efforts were made to reach all 537 agencies April-May 2010. This included letters sent out by the League and CSAC, followed up by emails and phone calls from Nichols Consulting Engineers, Chtd. (NCE). The contact database had over 2,100 contacts for all the cities and counties. This was compiled from a variety of sources including contacts from the 2008 study, the memberships of both CSAC and the League, and NCE's contacts.

The contacts included Public Works staff (Directors of Public Works, City Engineers or engineers responsible for pavement/asset management), Directors of Finance, City Managers, County Administrative Officers, RTPAs (Regional Transportation Planning Agencies), and MPOs (Metropolitan Planning Agencies).

Over 2,100 contact letters were mailed out in early March 2010 (see Exhibit 1) with instructions on how to access the online survey and a fact sheet explaining the project. The deadline for responding to the survey was April 15, 2010, but this was later extended to May 19, 2010, as there were numerous requests from agencies for more time to respond.

In the last two weeks of the April 2010, NCE made follow-up phone calls to agencies with more than 100 centerline miles of streets or roads to encourage them to respond to the survey if they had not already done so.

### ***A.2 Project Website***

The website at [www.SaveCaliforniaStreets.org](http://www.SaveCaliforniaStreets.org) (see Figure A.1) was originally designed and developed for the 2008 study. This was modified to accommodate the 2010 update. The intent of this website was to act as both an information resource on this study and as a repository of related reports that might be of interest to cities and counties. More importantly, it was a portal to the online survey that is described in Section A.3.

The domain name was registered for five years (expiring February 27, 2013) and can be used for future updates after this study is completed. The County of Los Angeles currently hosts the website.

### ***A.3 Online Survey Questionnaire***

A survey questionnaire was prepared and finalized in early April 2008, and a blank example included in Exhibit 1. Briefly, it included a request for the following information:

1. Contact name and information for both pavements and financial data
2. Pavements
  - a. Pavement management software used , if any
  - b. Network inventory data
  - c. Distress survey procedures
  - d. Pavement condition ratings and needs
3. Safety, Traffic, and Regulatory Components
  - a. Asset inventory
  - b. Replacement costs





Figure A.1 Home Page of [www.SaveCaliforniaStreets.org](http://www.SaveCaliforniaStreets.org) Website

#### 4. Funding sources and expenditures

Unlike the 2008 study, no hardcopy surveys were available to the cities and counties, thus requiring all data entry to be made online. The online survey made data aggregation much simpler and faster. A custom database was also designed and developed for this update to overcome the limitations of the previous survey. Also, multiple validation fields were added to prevent some of the data entry errors that were discovered in the 2008 study, thus mitigating the significant effort in follow-up calls as well as extensive validation checks.

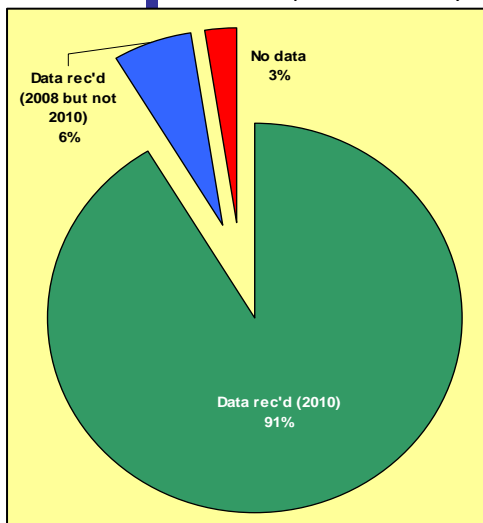


Figure A.2 Responses to Survey (% centerline miles)

### A.4 Results of Data Collection

A total of 399 agencies responded to the survey. In addition to the 82 agencies who responded in 2008, but not 2010, this added up to 481 agencies. More importantly, this represented more than 97 percent of the total centerline miles of local streets and roads in the state (see Figure A.2). It also represented 97 percent of the state's population. This was an improvement over 2008, when data were received from 93 percent of the state's street network.

In general, more agencies responded with more information in all the data categories (see Table A.1). Of particular

**97% of the state's local streets and roads are included in this study.**



importance was the number of agencies who responded with unit cost and financial data. In 2008, the survey did not ask for unit cost data, and the information used at the time was based on NCE's personal contacts with approximately 50 agencies around the state. This time, 260 agencies reported unit cost data that made the analysis much more robust. In addition, 300 agencies reported financial data, almost tripling the number of responses from 2008.

Of the missing 56 agencies, 47 had less than 100 centerline miles, and 50 had populations less than 50,000. Many had limited resources in terms of staff time to respond to the survey.

**Table A.1 Number of Agencies Responding by Data Type**

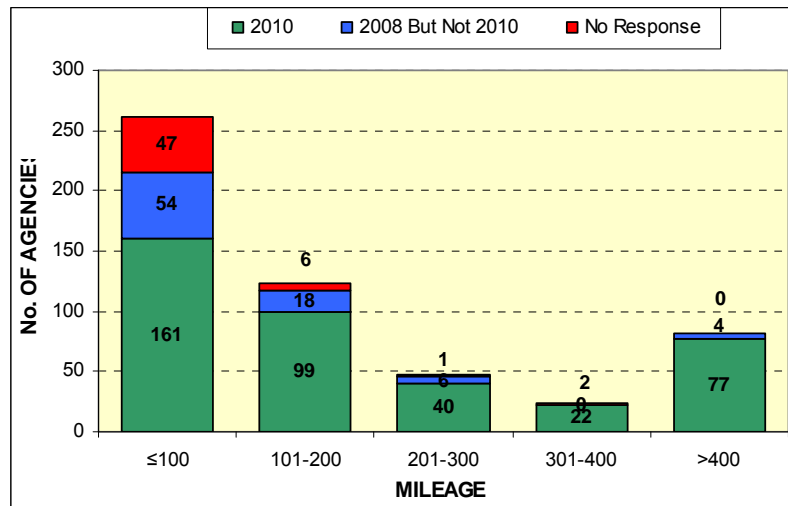
Data Reported	# of Agencies Reporting Data	
	2008	2010
Pavements	314	344
Unit Costs	50*	260
Essential Components	188	296
Financial	137	300

\* From NCE's database

#### A.4.1 Are Data Representative?

Throughout the data collection phase, it was important to ensure that the data received were representative in nature. This was critical for the analyses – as with the 2008 study, the criterion used was network size.

The distribution of responses with respect to network size is shown in Figure A.3. Small agencies are those that have less than 100 centerline miles; medium between 101 to 300 miles, and large agencies have more than 300 miles. Figure A.3 shows all the agencies who responded in 2010 (green), those who responded in 2008 but not 2010 (blue) and the ones who did not respond in either 2008 or 2010 in red. Clearly, the bulk of the agencies who did not respond had less than 100 miles of pavement network (small cities), but we still had 215 responses (82%) in this size category, so our confidence in the responses were validated.



**Figure A.3 Distribution of Agency Responses by Network Size (centerline miles)**





An important point to note too is that small agencies account for a very small percentage of the state's pavement network. There are 275 cities with less than 100 centerline miles of streets, and 167 cities with less than 50 centerline miles of streets. However, they comprise only 8.7 percent and 3.2 percent of the total miles in the state, respectively. Their impact on the statewide needs is consequently minimal.

#### A.4.2 PMS Software

**Due to the widespread use of a PMS, the quality of the pavement data received contributed immensely to the validity of this study's results.**

The survey responses showed that 83 percent of the responding agencies had a pavement management system (PMS) in place (see Figure A.4). The StreetSaver® (39%) and MicroPAVER (23%) software programs are the two main ones in the state, not surprising given their roots in the public domain and reasonable costs. StreetSaver® was developed and supported by the Metropolitan Transportation Commission (MTC) and MicroPAVER supported by the American Public Works Association (APWA).

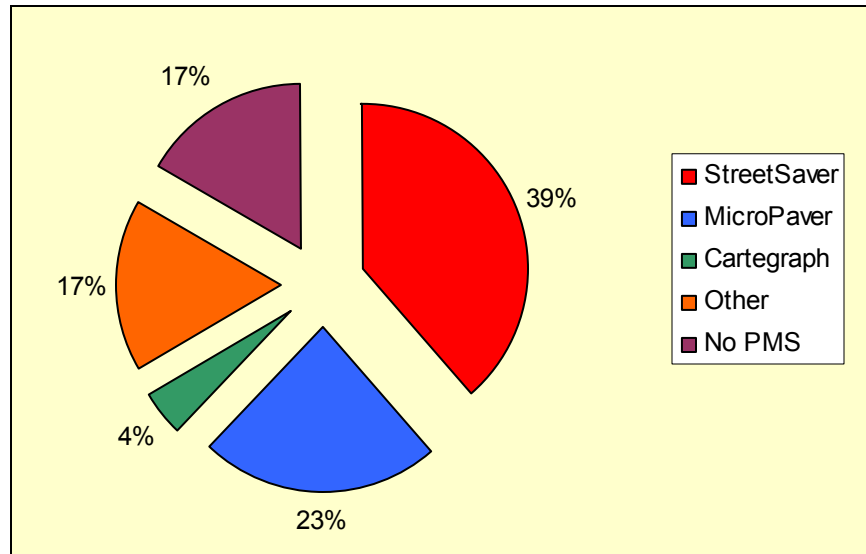


Figure A.4 PMS Software Used from Survey Responses

#### A.5 Summary

Overall, the number and quality of the survey responses received again exceeded expectations and more than met the needs of this study. To obtain data on more than 97 percent of the state's local streets and roads network was a remarkable achievement. That 83 percent of agencies that responded also had some pavement management system in place removed many obstacles in the technical analyses. In particular, the consistency in the pavement conditions reported contributed enormously to the validity of the study. Finally, to obtain significant increases in responses for the financial data was very encouraging.

