

Traffic Signals Maintenance

(IE-24-0003) • October 16, 2024

Frequent and prolonged traffic signal outages can increase public safety risks and negatively impact citizens' quality of life. Traffic congestion also negatively impacts commerce by delaying deliveries, increasing operating costs, and limiting access to customers.¹ Prompt signal repairs and effective maintenance are therefore critical to city infrastructure.

Purpose of This Report

The purpose of this report was to determine whether the City conducted traffic signal maintenance in an efficient and effective manner. Originally, the OIG intended to compare New Orleans traffic signal repair times to best practices and to the performance of other jurisdictions, but data limitations prevented this analysis. The report also sought to identify any obstacles to timely and effective maintenance.

What the OIG Found

The OIG found that the Department of Public Works (DPW) lacked performance measures related to traffic signal maintenance and failed to regularly update traffic signal data. This made it impossible for the OIG to compare the timeliness of repairs in New Orleans to those in other jurisdictions or recommended by best practices and also deprived the public of clear information regarding repairs.

The OIG found that the DPW lacked adequate staffing to ensure timely repairs and maintenance. A 2019 survey of jurisdictions across the country found agencies with 150-450 traffic signals employed on average 20.9 employees performing traffic signal work, while those with 450-1,000 signals employed on average 43.5 people performing traffic signal work.² By contrast, until May 2024, the DPW employed only two employees to maintain the 462 traffic signals in the city: one traffic signals specialist and one traffic signals technician, who had been injured and was restricted to light duty. The DPW had since hired more staff, but remained understaffed compared to other jurisdictions. The lack of adequate staffing also meant the DPW was unable to perform routine and preventive maintenance on signals, instead focusing on responding to malfunctions as they arose. This situation was exacerbated by a prolonged period during which the City was unable to successfully find a contractor to provide routine maintenance and repair services.

Finally, the OIG found that the DPW lacked an effective asset management program. In addition to the failure to conduct preventive maintenance on City-owned traffic signals, the department also failed to keep maintenance records for signals, had limited inventory for repairs, and did not have adequate facilities to secure equipment against damage.

What the OIG Recommended

In order to minimize inconvenience and danger to citizens from malfunctioning traffic signals, the OIG made the following recommendations:

1. The City and the DPW should ensure the traffic signal shop has sufficient staff to improve traffic safety and the quality of life in the city. Additionally, the DPW should adopt standard operating procedures for traffic signal maintenance and repair.
2. The DPW should adopt a system of asset management that incorporates routine and preventive maintenance, inventory assessments, and asset protection. Further, the City should ensure the DPW has adequate funds to implement a comprehensive asset management program.

¹ Cambridge Systematics, Inc., *Traffic Congestion and Reliability: Trends and Advanced Strategies for Congestion Mitigation: Chapter 2* (Federal Highway Administration, 2005), 20, [https://ops.fhwa.dot.gov/congestion_report/chapter2.htm#:~:text=Impacts%20on%20Businesses.,incurred%20on%20the%20transportation%20system](https://ops.fhwa.dot.gov/congestion_report/chapter2.htm#:~:text=Impacts%20on%20Businesses.,incurred%20on%20the%20transportation%20system;); "How Infrastructure Impacts Business," U.S. Chamber of Commerce, September 15, 2021, <https://www.uschamber.com/infrastructure/business-guide-infrastructure>.

² National Operations Center of Excellence, *Traffic Signal Benchmarking and State of the Practice Report* (Washington, D.C.: National Operations Center of Excellence, 2019), 39, [https://transops.s3.amazonaws.com/uploaded_files/TSBSOPR%20-%20Final%20Draft%20\(format%20fix%20needed\).pdf](https://transops.s3.amazonaws.com/uploaded_files/TSBSOPR%20-%20Final%20Draft%20(format%20fix%20needed).pdf).