DID YOU KNOW???

GOOD HEADLIGHTS MATTER

The ability for drivers to see the road ahead at night — and other drivers and pedestrians to see oncoming vehicles, too — is an important area of research by the Insurance Institute for Highway Safety (IIHS) that may have come into play in the March 18 crash in Tempe, Arizona, that killed a pedestrian. Elaine Herzberg, 49, was walking her bicycle across a four-lane arterial road around 10 p.m. when she was struck by a 2017 Volvo XC90 modified with Uber's sensors and software to operate in autonomous mode. Herzberg had crossed more than three lanes before she was struck by the SUV at about 39 mph. Dash cam video released by Tempe police shows Herzberg didn't look in the SUV's direction until just before it hit her. This was the first fatal crash involving a pedestrian and a self-driving vehicle operating under the control of a computer.

About half of traffic deaths occur either in the dark or at dawn or dusk, and the proportion of pedestrians killed in low light conditions is even greater. It is crucial that drivers, whether human or machine, have a good view of the road at night to drive safely. That is the role of headlights, especially on roads without street lighting, like our rural roads in Franklin County.

The Uber that struck and killed Elaine Herzberg had a variety of sensors to help it "see" the road and its surroundings. These included light detection and ranging (LIDAR) sensors, radar sensors and cameras. While LIDAR and radar sensors don't depend on ambient light to see, cameras, like human eyes, do. The pedestrian was wearing dark clothes, and the bicycle she was pushing didn't have side reflectors.

According to the NTSB preliminary report, Uber's LIDAR and radar first detected Herzberg 6 seconds before impact but didn't know what to make of her. It is possible that with better lighting the cameras could have helped confirm she was a pedestrian. The crash involved a specially outfitted 2017 Volvo XC90. Its headlights are rated poor because they don't provide sufficient low-beam light in IIHS evaluations. Good-rated headlights would have illuminated twice as much of the road ahead for an attentive driver. That means extra time to see the pedestrian and act to avoid the crash or lessen its severity.

Crash reports don't indicate whether the XC90's low beams or high beams were in use. The SUV has high-beam assist, which automatically switches between high beams and low beams, depending on the presence of other vehicles. Research shows drivers rarely turn on their high beams. High-beam assist ensures that they do.

So what conclusions can we draw from this tragedy? For one, we're making progress with autonomous vehicles but we're a long ways from the finish line. Secondly, good headlights do matter, whether it's us driving or a self-driving vehicle. Thirdly, whenever a pedestrian is crossing any street or road, even equipped with walk/don't walk signals, the pedestrian should ALWAYS LOOK at traffic, not assume drivers are going to stop. Lastly, get a vehicle with at least daytime running lights – the ability to be seen by other drivers is more critical than ever.

Thanks to the IIHS's August edition of "Status Report" for information for this article. For more details, go to Status Reports at www.iihs.org.

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