DETROIT (AP) — The U.S. government's highway safety agency has opened a formal investigation into air bag failures in some Chevrolet Impala full-size cars made by General Motors.

The National Highway Traffic Safety Administration said Friday it began the probe after receiving a petition from Donald Friedman of Xprts, a Santa Barbara, Calif., company that examines crashes.

Friedman examined an April 2011 car crash in Hidalgo County, Tex., that severely injured an elderly man named Roberto Martinez. His wife Aurora was driving their 2008 Impala when it was hit by an SUV and forced into a concrete highway divider and a fixed barrier in front of the car. The passenger air bags didn't deploy, and Roberto suffered permanent brain injuries, according to a lawsuit filed by the couple against GM. He died about 10 months later.
Friedman alleges that because Roberto Martinez was bounced around during the incident, the weight sensor in the passenger seat misread his weight and didn't fire the air bag. The air bag is supposed to inflate for anyone other than a child or small adult.

The petition, filed last November, asked NHTSA to investigate and recall the cars that use the same computer to sense a passenger's weight. It says GM used the same system in other models from 2004 through 2010. The inquiry covers about 320,000 Impalas from the 2007-2009 model years. Friedman says the cars should be recalled and the computers reprogrammed.

A NHTSA spokeswoman said late Friday that Friedman's petition had been granted and the agency had opened an investigation.

NHTSA said in documents that it will review all available data and take appropriate action. But it said initial reviews found no defects. "However, in an abundance of caution regarding the performance of air bags in the nation's fleet, NHTSA is looking further into this allegation," the agency said in a statement issued Friday evening.

GM may be getting greater scrutiny from NHTSA after the company admitted knowing about a deadly ignition switch problem in some of its older small cars for more than a decade, yet it didn't recall them until this year. Eventually the company recalled 2.6 million cars such as the Chevrolet Cobalt for that problem. NHTSA fined GM the maximum $35 million for failing to disclose information in the case. Lawmakers have said the agency should have spotted the problem years earlier and forced a GM recall.

The Martinez case was settled out of court about two years ago, said the couple's attorney, Manuel Guerra. He would not disclose the sum. Friedman was hired by Guerra to evaluate the case.

Friedman said in an interview Friday that he filed the petition so the government would address the problem in other vehicles. "It seemed to me that it was an important thing to get in front of NHTSA and have the other vehicles that could have had the same defect taken care of," he said.

GM spokesman Alan Adler says the company will cooperate. He said GM did its own review and decided not to take any action, although he would not comment on the reasons for that decision.

A formal investigation means NHTSA is assigning investigators and eventually will determine if a safety defect exists. If there is a defect, the agency will seek a recall.
Clarence Ditlow, head of the nonprofit Center for Auto Safety and a frequent government critic, said the agency should examine all fatal crashes involving the cars in which the air bags didn't deploy and determine why they didn't.

Ditlow also said he fears that regulators may have missed a case with air bag problems similar to the Cobalt.

The Cobalt case touched off Justice Department and congressional investigations and forced GM to do a companywide safety review that brought 60 recalls affecting 29 million vehicles so far this year.