

Why GAO Did This Study

As the Army reduces its number of troops, it requires fewer new ground combat vehicles, such as the Abrams tank and Bradley Fighting Vehicle. In response to questions raised about the effect of this planned decrease, the Senate Armed Services Committee and conferees for the National Defense Authorization Act for Fiscal Year 2013 directed the Army to conduct a study to examine the viability of its combat vehicle industrial base. The Army issued a contract with a management consulting firm to conduct the study, which was presented to congressional defense committees in April 2014.

The Joint Explanatory Statement to Accompany the National Defense Authorization Act for Fiscal Year 2014 included a general provision for GAO to assess the reasonableness of the Army study's methods. GAO examined the study's design, execution, and presentation of the results. This examination included, among other things, a review of the study's assumptions and the steps taken to ensure the validity and reliability of the study's data. GAO reviewed study documentation, briefings, and the final report to congressional defense committees and assessed its reasonableness using generally accepted research standards. GAO also interviewed Army officials, the study's authors, the two combat vehicle industrial base original equipment manufacturers, and several suppliers selected based on their perceived criticality to the combat vehicle industrial base.

GAO is not making any recommendations in this report.

View [GAO-15-548](#). For more information, contact Marie A. Mak at (202) 512-4841 or makm@gao.gov.

ARMY COMBAT VEHICLES

Industrial Base Study's Approach Met Research Standards

What GAO Found

GAO's review of the Army's combat vehicle industrial base study found that the study's methods—its design, execution, and presentation of results—were executed in accordance with generally accepted research standards, and, as a result, the study's key findings were reasonable and well supported. The Army's study found, among other things, excess capacity in the combat vehicle industrial base and a small number of at-risk critical suppliers. According to the research standards, a study's design should include, for example, establishing the objectives, scope, and methodology, and identifying study assumptions. Successful execution involves ensuring that the methodology was carried out as planned, or adjusted as appropriate to the evidence, and ensuring that data used in the study are sufficiently valid and reliable for the study's purposes. Presentation includes clearly documenting the study's results in a way that is relevant to stakeholders.

- First, GAO assessed the study's design and determined that it was sound. The study's objective (to assess the combined commercial and government combat vehicle industrial base and develop viable strategic alternatives to sustain that base within a constrained fiscal environment) addressed congressional direction. The scope was comprehensively designed to achieve the study's objective, and its methodology addressed the study's objective. The study's assumptions were generally reasonable, although some key assumptions could have been more explicitly stated. For instance, the study could have more explicitly stated that it viewed the consequences of changes to the industrial base from the perspective of the Army rather than, for example, from the perspective of manufacturers or individual suppliers.
- Second, GAO found that during execution, various limitations arose, which were generally identified and the study's authors took reasonable steps to mitigate. Additionally, the Army took sufficient actions to ensure the data used were valid and reliable for the study's purposes, such as obtaining data directly from the individual programs, then returning to these sources to ensure the data were being used appropriately.
- Finally, the study's findings were presented in a clear, comprehensive, and timely manner, with the analysis and findings going beyond the elements required by congressional direction. For example, the study's findings went beyond an assessment of the Bradley Fighting Vehicle and the Abrams tank to include a more holistic look at the vehicles and facilities in the combat vehicle industrial base.