



July 2019

# ARMY MODERNIZATION

## Army Futures Command Should Take Steps to Improve Small Business Engagement for Research and Development

Accessible Version

# GAO Highlights

Highlights of [GAO-19-511](#), a report to the Ranking Member, Committee on Small Business and Entrepreneurship, U.S. Senate

## Why GAO Did This Study

The Army is modernizing its weapon systems to improve its ability to face near-peer adversaries. To consolidate and oversee these efforts, the Army established Army Futures Command. The command plans to work with small businesses to develop innovative capabilities through research and development activities.

GAO was asked how the establishment of Army Futures Command could affect small businesses that support research and development efforts. This report examines, among other objectives, how the command (1) engages with small businesses and coordinates with other Army organizations and (2) plans to track and measure the effectiveness of that engagement.

GAO reviewed the Army's internal analyses of its own modernization efforts; reviewed and analyzed policies and procedures on the command's small business engagement; and interviewed Army officials engaged in modernization efforts as well as two private companies selected because they facilitate Army's work with small businesses.

## What GAO Recommends

GAO is making three recommendations including that the Army Futures Command coordinate with relevant Army organizations on small business engagement efforts for research and development; systematically track its small business engagement; and develop command-wide performance measures and a plan to use them to assess the effectiveness of its small business engagement. The Army concurred with all three recommendations.

View [GAO-19-511](#). For more information, contact Jon Ludwigson at (202) 512-4841 or [LudwigsonJ@gao.gov](mailto:LudwigsonJ@gao.gov).

July 2019

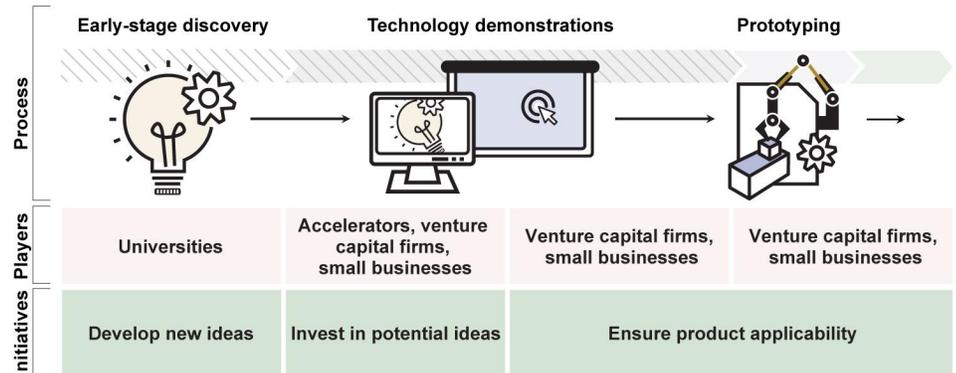
# ARMY MODERNIZATION

## Army Futures Command Should Take Steps to Improve Small Business Engagement for Research and Development

### What GAO Found

Army Futures Command, established in June 2018 by combining several existing Army organizations and expected to be fully operational in July 2019, is engaging with small businesses. The command considers small business engagement critical to its success and officials reported it intends to continue the engagement activities of the organizations that are moving into it such as conducting outreach and awarding contracts. The Army recognizes the importance of small businesses and has awarded \$2.3 billion to hundreds of small businesses from fiscal year 2013 through 2017. The command is also taking initial steps to enhance small business engagement (see figure). Army officials noted that these new efforts are intended to address concerns raised by small businesses in working with the government, such as delays between initial outreach and entering into contracts.

Examples of Army Futures Command Initiatives to Enhance Small Business Engagement



Source: GAO analysis of Army Futures Command documentation. | GAO-19-511

However, the command has not fully leveraged other Army organizations that work with small businesses, such as the Army Office of Small Business Programs. According to command officials, they prioritized setting up the command structure and engaging with small businesses quickly, instead of focusing on coordination. The command has recently been working to improve coordination, but has not formally coordinated such as by establishing agreements with other Army organizations that have small business expertise. Doing so would help Army Futures Command leverage this past experience and avoid missing opportunities to engage with these companies and access innovative research and development.

The command does not track how frequently or in what ways it engages with small businesses for research and development across all command components. Similarly, command officials stated they have considered performance measures to assess the effectiveness of their engagement efforts, but have not yet developed command-wide measures or a plan to assess effectiveness. Tracking and measuring engagement would help ensure the command obtains quality information that may help the Army evaluate, and potentially enhance, its small business engagement.

---

# Contents

---

Letter		1
	Background	3
	Army Did Not Conduct Analyses Specific to Small Business, but Army Futures Command Stated It Considers Small Business Engagement Important	12
	Army Futures Command Is Taking Steps to Engage with Small Businesses, but Is Not Fully Leveraging Existing Relevant Army Expertise	13
	Army Futures Command Has Not Yet Developed Tracking or Performance Measures for Small Business Engagement	20
	Conclusions	22
	Recommendations for Executive Action	23
	Agency Comments	25
<hr/>		
Appendix I: Objectives, Scope, and Methodology		26
Appendix II: Comments from the Department of Army		30
Appendix III: GAO Contact and Staff Acknowledgments		33
Appendix IV: Accessible Data		34
	Data Table	34
	Agency Comment Letter	36
<hr/>		
Tables		
	Table 1: Number of Contracts Awarded to Small Businesses during Fiscal Years 2013 through 2017 for Research and Development across the Army	8
	Table 2: Obligations for Contracts and Orders Awarded to Small Businesses during Fiscal Years 2013 through 2017 for Research and Development across the Army (Fiscal Year 2018 dollars in millions)	9
<hr/>		
Figures		
	Figure 1: Locations of Army Futures Command Components	6

---

Figure 2: Small Business Contracting Activity during Fiscal Years 2013 through 2017 for Army Research and Development	10
Figure 3: Examples of Initiatives to Enhance Small Business Engagement Planned by Army Futures Command	16
Accessible Data for Figure 2: Small Business Contracting Activity during Fiscal Years 2013 through 2017 for Army Research and Development	34

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.



July 17, 2019

The Honorable Benjamin L. Cardin  
Ranking Member  
Committee on Small Business and Entrepreneurship  
United States Senate

Dear Senator Cardin:

The Army is enhancing its capabilities and upgrading its weapon systems—referred to as modernization. The Army has determined that modernization is essential to better position itself to deter or defeat near-peer adversaries—defined as countries with advanced technological capabilities capable of waging a large-scale conventional war with the United States.

The Army Futures Command was established in June 2018 to oversee modernization, and develop requirements and technology to achieve the modernization goals of the Army. The command intends to accomplish this, in part, through increased access to innovation from small businesses. Small businesses, a vital part of the defense industrial base, can be a source of innovative capabilities and emerging technologies to support the warfighter. According to a report from the Congressional Research Service and the *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations*, also referred to as the Section 809 Report, small businesses are among the most cost-effective performers of research and development in bringing new products into the marketplace.<sup>1</sup> From fiscal years 2013 through 2017—prior to the establishment of Army Futures Command—the Army obligated about \$2.3 billion on contracts to small businesses in support of research and development efforts.

You asked us to examine how the establishment of Army Futures Command could affect small businesses that support research and

---

<sup>1</sup>Congressional Research Service, *Small Business Innovation Research and Small Business Technology Transfer Programs*, R43695 (Aug. 26, 2014). Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations*, vol 1 (January 2018). For the purposes of this report, we consider research and development to include: basic research, applied research, development, and facilities and equipment.

development efforts. This report (1) describes what analyses, if any, the Army conducted to determine the effect of its modernization initiatives on small businesses; (2) describes how Army Futures Command is engaging with small businesses to support research and development efforts, and assesses how it is coordinating with other relevant Army organizations; and (3) assesses how Army Futures Command plans to track and measure the performance of its engagement with small businesses to support research and development efforts.

To describe the analyses the Army conducted to support its modernization efforts and the potential effect these modernization efforts could have on small businesses, we collected and reviewed available studies and analyses the Army conducted on modernization efforts, including those focused on the creation of Army Futures Command.

To describe how Army Futures Command is engaging with small businesses to support research and development efforts, we reviewed policies, procedures, and guidance from the Department of Defense, Department of the Army, Army Futures Command, and other relevant Army offices on small business engagement. We reviewed relevant small business statutes, sections of the Federal Acquisition Regulation, as well as Defense and Army supplements to the Federal Acquisition Regulation, to understand the framework for small business participation in support of research and development efforts. We collected and analyzed supporting documentation on Army Futures Command's engagement with small businesses including its roles and responsibilities, outreach efforts, and award documentation, as well as those of its subordinate components. To assess how Army Futures Command coordinates with other Army organizations, we reviewed policy documentation, such as a memorandum of understanding on coordinating contract support. We assessed the information we collected against Federal Standards for Internal Control related to organizational structure, reporting lines, and using quality information.<sup>2</sup>

To assess how Army Futures Command is planning to track and measure its engagement with small businesses, we reviewed statutes, regulations, and policies relevant to the Department of Defense and Army engagement with small businesses. We also reviewed documentation on

---

<sup>2</sup>GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 10, 2014).

planned tracking efforts and performance measures from the command, and documentation from organizations transitioning to the command to determine how those organizations previously monitored and evaluated their small business engagement. We assessed the information we collected against Federal Standards for Internal Control related to monitoring activities, using quality information, as well as defining objectives and evaluating results.<sup>3</sup>

To address all of the objectives, we interviewed officials at various Army offices to understand how the new command plans to engage with small businesses. This included Army Futures Command and the organizations transitioning to Army Futures Command, the Office of the Under Secretary of the Army, the Army Office of Small Business Programs, members of the Office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, and Army Contracting Command. We also met with two private sector entities the Army works with to coordinate outreach with small businesses. These entities have experience in engaging small businesses for the private sector as well as government programs, and they discussed with us the concerns and challenges small businesses have identified to them in working with the government. These views are not generalizable but provide perspective on matters relevant to the Army's efforts to engage with small businesses. For more information on our scope and methodology, see appendix I.

We conducted this performance audit from September 2018 to July 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

---

## Background

We previously reported that the Army began its modernization efforts—defined as efforts to enhance its capabilities and upgrade its weapon

---

<sup>3</sup>[GAO-14-704G](#). As stated in [GAO-14-704G](#), performance measure refers to a means of evaluating the entity's performance in achieving objectives.

---

systems—in the fall of 2017.<sup>4</sup> As a part of this effort, the Army identified six modernization priorities.

1. Long-Range Precision Fires— focused on improving the targeting, range, and lethality of, among other things, artillery and rockets.
2. Next Generation Combat Vehicle—focused on developing manned and unmanned combat vehicles with updated firepower, protection, mobility, and power generation.
3. Future Vertical Lift— focused on developing manned and unmanned aircraft capable of attack, lift, and reconnaissance missions.
4. Army Network— focused on developing a mobile system of hardware, software, and infrastructure for reliable and secure communications.
5. Air and Missile Defense—focused on improving capabilities for protection against modern and advanced air and missile threats.
6. Soldier Lethality—focused on improving capabilities, equipment, and training for all fundamentals of combat including shooting, moving, communicating, protecting, and sustaining combat operations.

We also reported that, to fund these priorities, in 2017 the Army realigned over \$1 billion in science and technology funding away from efforts that it determined did not align with these priorities. The Army subsequently announced plans to spend an additional \$7.5 billion on these priorities over the next 5 years.

---

## Army Futures Command

Army Futures Command was formed less than a year ago and has not finalized its structure. The Army established the Army Futures Command in June 2018 to consolidate its modernization efforts under one entity and it began initial operations in July 2018. Army Futures Command selected Austin, Texas, as its headquarters location and began to integrate and align resources and personnel. The new command headquarters includes a number of administrative and functional offices that report directly to it, not all of which are co-located with the command in Austin. Specifically:

---

<sup>4</sup>GAO, *Army Modernization: Steps Needed to Ensure Army Futures Command Fully Applies Leading Practices*, [GAO-19-132](#) (Washington, D.C.: Jan. 23, 2019); and *Army Modernization: Actions Needed to Measure Progress and to Fully Identify Near-Term Costs*, [GAO-18-604SU](#) (Washington, D.C.: Sept. 28, 2018).

- **Administrative offices** are responsible for providing contracting support, legal support, and small business engagement support to headquarters. These offices are located in Austin, Texas.
- **Army Applications Laboratory** is responsible for coordinating outreach to businesses, including small businesses, for headquarters. The Army Applications Laboratory is located in Austin, Texas.
- **Cross-functional teams** are the eight teams responsible for identifying capability needs and developing requirements associated with the Army's six priorities. The teams are located in different parts of the country in areas relevant to their capability focus.
- **Medical Research and Development Command** is responsible for seeking and developing new medical technologies for use by the Army. This command is in the process of transferring from Army Medical Research and Materiel Command and is located at Fort Detrick, Maryland.<sup>5</sup>

In addition to these organizations, the command has three major subordinate components, comprised of several existing requirements and technology development organizations. Specifically:

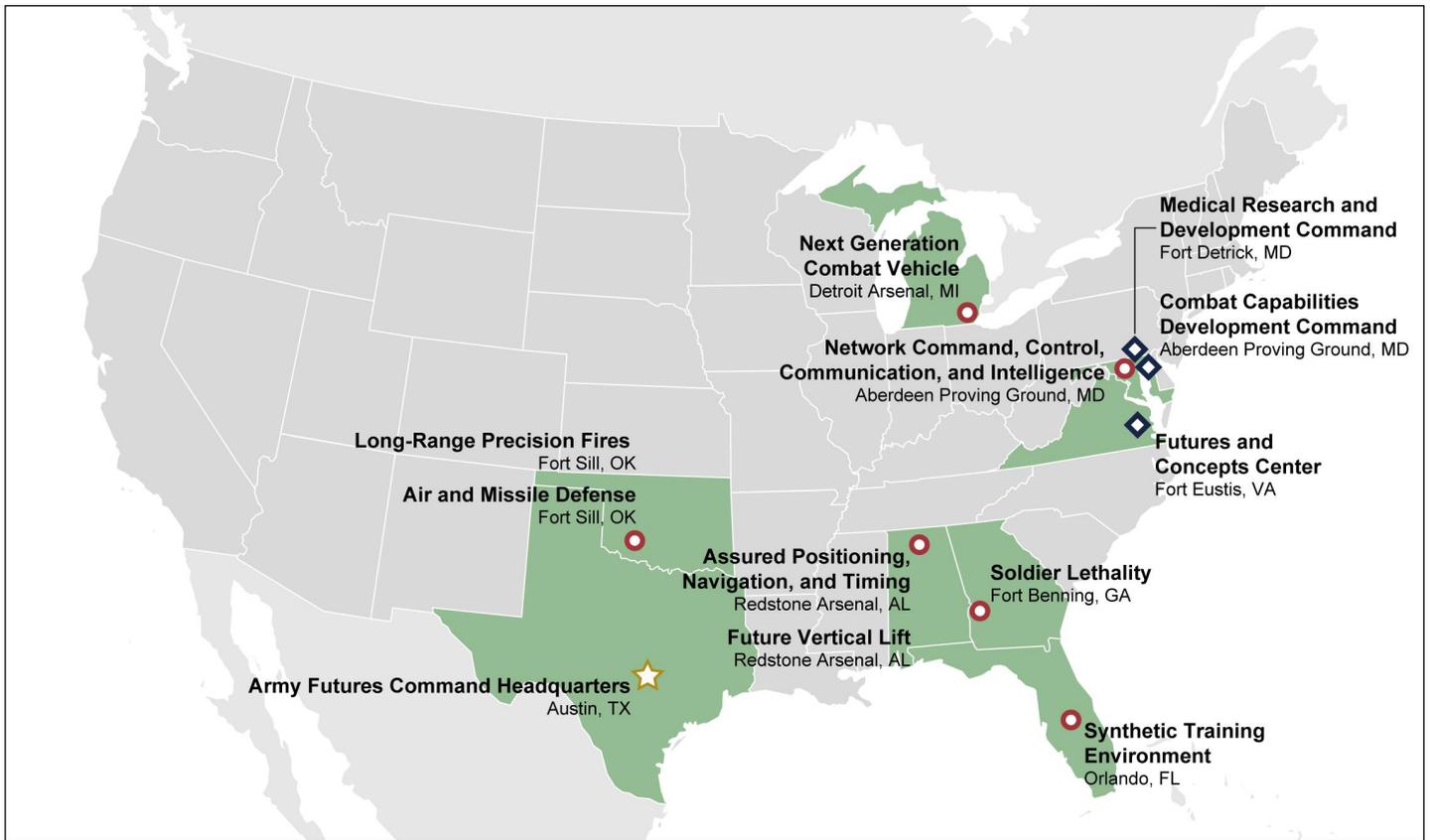
- **Futures and Concepts Center** is responsible for identifying and prioritizing capability and development needs and opportunities. This organization subsumed the Army Capabilities Integration Center—formerly part of Army Training and Doctrine Command—on December 7, 2018 and is located at Fort Eustis, Virginia.
- **Combat Capabilities Development Command** is responsible for conceptualizing and developing solutions for identified needs and opportunities. This organization subsumed the Research, Development, and Engineering Command—formerly a part of Army Materiel Command—on February 3, 2019 and is located at Aberdeen, Maryland.
- **Combat Systems Directorate** is responsible for refining, engineering, and producing new capabilities. The directorate is to communicate with the program executive offices and program management offices reporting to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology. The command is in the process of establishing Combat Systems Directorate in Austin, Texas.

---

<sup>5</sup>According to Medical Research and Development Command officials, Medical Research and Development Command transitioned to Army Futures Command on June 1, 2019.

Army Futures Command is expected to become fully operational in July 2019, when its headquarters and its subordinate components are fully staffed. Locations for components of the new command are shown in figure 1.

**Figure 1: Locations of Army Futures Command Components**



- ★ Headquarters
- ◆ Major components
- Cross-functional team

Source: GAO review of Army documentation; MapResources (map). | GAO-19-511

According to Army Futures Command officials, as part of their modernization efforts, they plan to coordinate with other existing Army organizations. These include the Office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology—the civilian authority responsible for the overall supervision of acquisition and contracting for the Army. They also plan to coordinate with Army Contracting Command,

---

which is the principle buying agent and provider of contracting support for the Army and operates within Army Materiel Command.

---

## Small Business Engagement

As we previously stated, others have reported that small businesses are a vital part of the defense industrial base and engaging with them can produce innovative capabilities and emerging technologies to support the warfighter.<sup>6</sup> For the purposes of this report, engagement with small business is defined as a range of activities including: initial outreach to small businesses to identify companies that may have useful information or ideas, information sharing on the Army's capability needs, and formal engagement including processes to enter into business relationships, including contracts and other arrangements.<sup>7</sup> The Small Business Act requires federal agencies to establish annual goals that provide small businesses with contracting opportunities to the maximum extent practicable.<sup>8</sup> Pursuant to the Act, the Small Business Administration negotiates annual small business goals with federal agencies, including the Department of Defense. A portion of the overall goals for the Department of Defense is assigned to the various military components—including the Army—that have contracting authority. The Army Office of Small Business Programs, responsible for enhancing Army contracting opportunities for small businesses, then assigns portions of the Army's goal to its four major commands with contracting authority: Army Materiel Command, Army Medical Command, Army Corps of Engineers, and the National Guard Bureau. Army Materiel Command is the primary

---

<sup>6</sup>The Federal Acquisition Regulation (FAR) generally defines a small business concern as a concern that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the Small Business Administration's criteria and size standards in 13 C.F.R. part 121. Such a business is "not dominant in its field of operation" when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. FAR § 2.101. Determination of size varies by industry, and is generally based on the number of employees or the amount of annual receipts of the business. See 13 C.F.R. § 121.201. Congressional Research Service, *Small Business Innovation Research and Small Business Technology Transfer Programs*, R43695 (Aug. 26, 2014). Section 809 Panel, *Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations*, vol 1 (January 2018).

<sup>7</sup>As described later in this report, other arrangements include other transaction agreements, grants, cooperative agreements, and cooperative research and development agreements

<sup>8</sup>See 15 U.S.C. § 644(g)(1)(B).

command responsible for the execution and oversight of contracts for Army Futures Command.

Historically, the Army has engaged with small businesses in a variety of ways, including awarding contracts for various goods and services that support the warfighter. Federal contracts, including those awarded by the Army, are tracked in the Federal Procurement Data System-Next Generation database. Using data provided by the Army from this database, we identified over 4,500 contracts awarded to small businesses for research and development efforts in the 5 years prior to the establishment of Army Futures Command—fiscal years 2013 through 2017.<sup>9</sup> The number of contracts awarded during this time period is summarized in table 1.

**Table 1: Number of Contracts Awarded to Small Businesses during Fiscal Years 2013 through 2017 for Research and Development across the Army**

Type of Contract Awards	2013 (fiscal year)	2014 (fiscal year)	2015 (fiscal year)	2016 (fiscal year)	2017 (fiscal year)	Total
Small Business Innovation Research Program <sup>a</sup>	506	420	418	471	708	2,523
Small Business Technology Transfer Program <sup>a</sup>	108	75	59	95	122	459
Other Small Business Contracts	304	279	308	350	291	1,532
<b>Total Army Small Business Contracts</b>	<b>918</b>	<b>774</b>	<b>785</b>	<b>916</b>	<b>1,121</b>	<b>4,514</b>

Source: GAO analysis of Army provided Federal Procurement Data System-Next Generation Data | GAO-19-511.

Note: This table includes only base contract awards; contract modifications and orders under indefinite-delivery contracts are not included.

<sup>a</sup>The Small Business Innovation Research and Small Business Technology Transfer programs were established to expand the role of small businesses in federal research and development efforts. The programs can include awards of contracts, grants, or cooperative agreements. Grants and cooperative agreement awards are not included in this table.

We identified almost \$2.3 billion in obligations to small businesses for research and development from fiscal years 2013 through 2017, or about half of the total amount the Army obligated for all research and development contracts. The obligations for these Army contracts awarded

<sup>9</sup>The data provided by the Army included information on contracts awarded to small businesses generally, as well as contracts awarded under two government-wide programs that were established to focus on small business participation in federal research and development efforts, the Small Business Innovation Research and Small Business Technology Transfer programs.

to small businesses for research and development are summarized in table 2.

**Table 2: Obligations for Contracts and Orders Awarded to Small Businesses during Fiscal Years 2013 through 2017 for Research and Development across the Army (Fiscal Year 2018 dollars in millions)**

Type of Contract Awards <sup>a</sup>	2013 (fiscal year)	2014 (fiscal year)	2015 (fiscal year)	2016 (fiscal year)	2017 (fiscal year)	Total
Small Business Innovation Research Program Obligations <sup>b</sup>	139	138	140	182	260	859
Small Business Technology Transfer Program Obligations <sup>b</sup>	32	29	18	36	38	152
Other Small Business Contracts Obligations	365	232	229	222	223	1,270
<b>Total Small Business Obligations</b>	<b>535</b>	<b>398</b>	<b>386</b>	<b>441</b>	<b>521</b>	<b>2,282</b>
<b>Total Contract Obligations</b>	<b>921</b>	<b>821</b>	<b>1,096</b>	<b>818</b>	<b>989</b>	<b>4,646</b>

Source: GAO analysis of Army provided Federal Procurement Data System-Next Generation Data | GAO-19-511.

Note: The obligations have been adjusted for inflation to fiscal year 2018 dollars using the fiscal year gross domestic product price index.

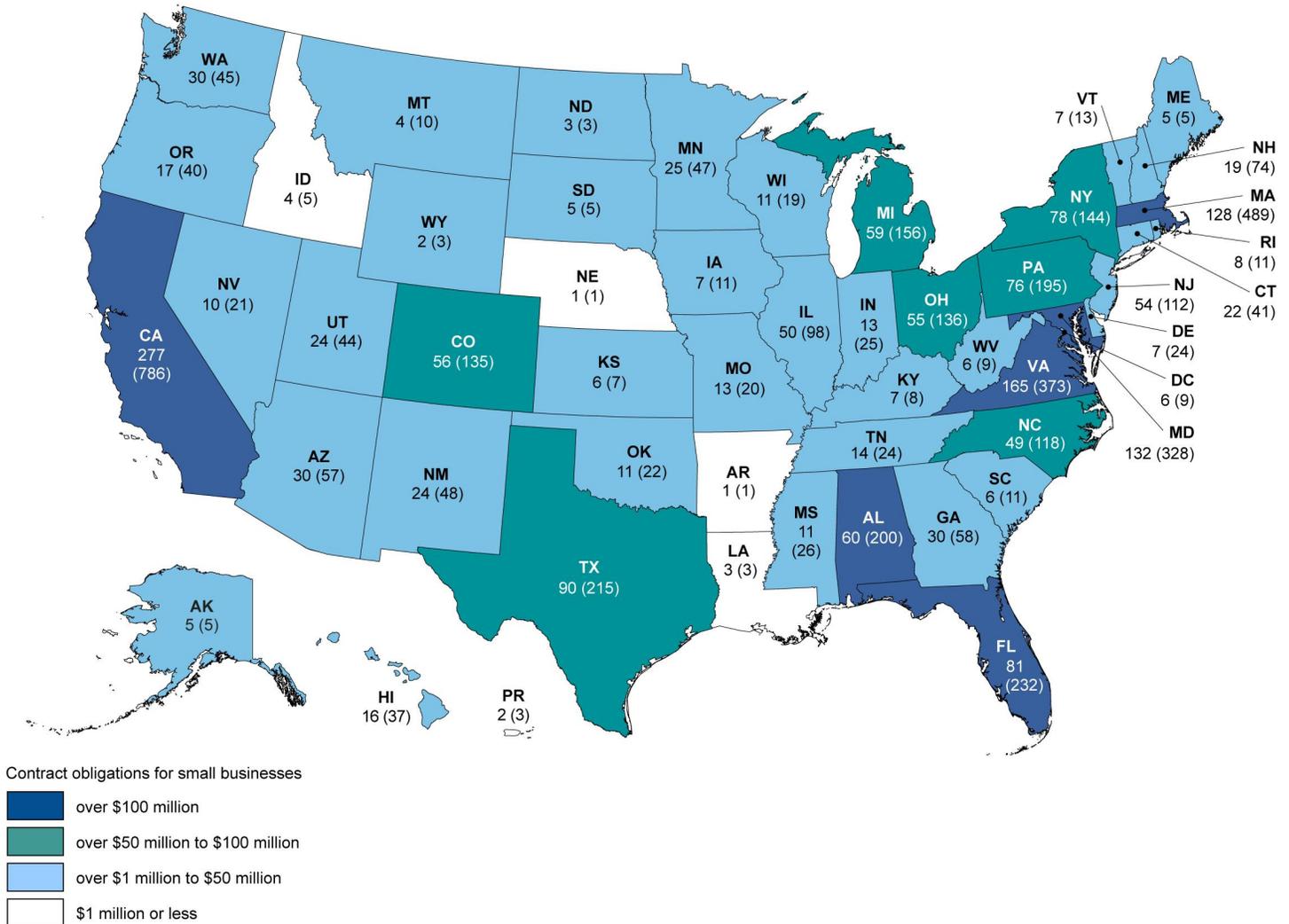
<sup>a</sup>Obligations include those for contracts and any orders placed under indefinite-delivery contracts in the fiscal year of the contract award.

<sup>b</sup>The Small Business Innovation Research and Small Business Technology Transfer programs were established to expand the role of small businesses in federal research and development efforts. These programs can include awards of contracts, grants, or cooperative agreements. Obligations for grants and cooperative agreements are not included in this table.

These contract obligations for research and development went to 1,815 small businesses throughout the United States from fiscal years 2013 through 2017.<sup>10</sup> Figure 2 shows this information for each state as well as the District of Columbia and Puerto Rico.

<sup>10</sup>This count of small businesses includes only contracts directly awarded to small businesses and does not include any data on small businesses serving as subcontractors.

**Figure 2: Small Business Contracting Activity during Fiscal Years 2013 through 2017 for Army Research and Development**



Source: GAO analysis of Army provided Federal Procurement Data System-Next Generation Data. | GAO-19-511

Note: Ten businesses are listed twice as they moved between states during the 5-year period.

About half of the Army contract awards and obligations to small businesses for research and development from fiscal years 2013 through 2017 supported two organizations—Research, Development, and Engineering Command and Medical Research and Materiel Command—which have transitioned, or are in the process of transitioning, to Army Futures Command. To support research and development efforts for these two organizations, the Army awarded 2,948 out of a total 4,514

small business contracts, and obligated about \$1.3 billion out of \$2.3 billion from fiscal years 2013 through 2017.

In addition to the contracts discussed above, the Army can use other arrangements to engage with small businesses. These other arrangements include:

- agreements using other transaction authority for research and development activities and developing prototypes;
- financial assistance mechanisms including grants—which are used when the principal purpose of the relationship is to transfer a thing of value to the recipient to carry out a public purpose authorized by law, and substantial involvement by the agency is not expected—and cooperative agreements—which are also used to transfer a thing of value to carry out a public purpose, but where substantial involvement by the agency is expected; and
- cooperative research and development agreements under which the government and nonfederal partners may share resources and increase the commercialization of federally developed technology.

Unlike contracts, the Federal Procurement Data System-Next Generation database cannot be used to quantify engagement with small businesses using these other arrangements.<sup>11</sup> For example, the financial assistance mechanisms, as well as cooperative research and development agreements, are not generally tracked in the Federal Procurement Data System-Next Generation database.<sup>12</sup> In addition, while it is the Department of Defense’s policy to report the use of other transaction authority for prototype projects in the Federal Procurement Data System-Next Generation, the data for this reporting does not distinguish business

---

<sup>11</sup>We obtained data on grants, cooperative agreements, and other types of agreements using a data system other than the Federal Procurement Data System-Next Generation. Based on our initial analysis and discussions with agency officials, we found that the data were not sufficiently reliable for the purpose of this engagement and were excluded from our review.

<sup>12</sup>The Federal Acquisition Regulation (FAR) describes the Federal Procurement Data System-Next Generation as a comprehensive tool for agencies to report “contract actions,” and it requires agencies to report a wide range of such actions in the system. FAR §§ 4.602(a) 4.606(a). While the FAR’s definition of what constitutes a contract action expressly excludes grants, cooperative agreements, and “other transactions,” the FAR permits agencies to report “other actions” such as these, provided certain conditions are met. Id. §§ 4.601, 4.606(b).

---

size. As a result, it cannot be used to quantify the Army's engagement with small businesses under this arrangement.

---

## Army Did Not Conduct Analyses Specific to Small Business, but Army Futures Command Stated It Considers Small Business Engagement Important

The Army conducted several analyses related to its modernization efforts, including those directly focused on the creation of Army Futures Command. We identified the following key analyses the Army used to support its modernization efforts:

- In October 2017, Army reviewed its science and technology portfolio and determined which investments contributed to the Army's modernization priorities and which might be curtailed or eliminated to realign funding. According to Army officials, this review was focused on identifying solutions to known capability needs, not on how small businesses would be affected by the realignment of funds.
- In early 2018, Army analyzed several options for the roles, responsibilities, staffing, and organizational structure for the proposed Army Futures Command. This analysis did not include an assessment of how small business would be affected by its establishment.
- In April 2018, Army completed a report on its modernization strategy as mandated by the Congress.<sup>13</sup> The report focused on warfighting challenges, risks, costs, and acquisition timelines for fielding future capabilities. It also included analyses of near-peer competitors, operational requirements, strategic portfolio analyses, and capability gaps. It did not include information on what role, if any, small businesses would have in developing or supplying the means to close capability gaps.

Multiple Army officials explained that they did not specifically analyze the effect of modernization on small business as they anticipated continuing their current level of engagement with these entities and perhaps increasing it. Further, senior Army Futures Command officials stated that they consider engagement with small businesses to be critical to their

---

<sup>13</sup>Pub. L. No. 115-91 § 1061 (2017).

---

modernization efforts as well as a key aspect of their mission. They also noted that the command's headquarters location in Austin, Texas was chosen, in part, because of its close proximity to science, technology, and engineering talent and small business start-ups that can provide innovative solutions.

---

## Army Futures Command Is Taking Steps to Engage with Small Businesses, but Is Not Fully Leveraging Existing Relevant Army Expertise

---

### Army Futures Command Stated It Is Continuing Small Business Engagement Efforts of Subordinate Commands and Taking Initial Steps to Enhance Engagement

Senior Army Futures Command officials told us they intend to continue the small business engagement efforts undertaken by components being integrated into the new command. Command officials stated that organizations transitioning to Army Futures Command will continue engaging with small businesses as they have in the past. For example, organizations transitioning to Army Futures Command awarded about \$1.3 billion to hundreds of small businesses from fiscal years 2013 through 2017. In addition, prior to transitioning to the new command, the Combat Capabilities Development Command Army Research Laboratory and the Medical Research and Materiel Command participated in outreach events, such as industry days and conferences focused on small businesses, to network with and identify small businesses for potential future awards. According to officials from these commands, these efforts have historically led to business relationships using a variety of arrangements, including contracts, agreements using other transaction authority, grants, cooperative agreements, and cooperative research and development agreements. Officials from Army Futures Command stated that the past efforts of its components aimed at small business engagement would continue. The command also plans to continue utilizing the Small Business Innovation Research and Small Business Technology Transfer programs to award contracts, grants, and cooperative agreements to small businesses.

Army Futures Command also intends to use their cross-functional teams to enhance small business engagement. These teams identify capability needs and requirements derived from the Army's six modernization

priorities. Officials told us that these cross-functional team efforts can serve as a way to focus small business engagement. For example, the cross-functional teams develop problem statements that describe the capabilities currently needed by the warfighter for a specific activity, such as a need for better communications and networking equipment. These problem statements can then be shared with small businesses as part of outreach efforts—such as challenge competitions or industry days—and lead to discussions about potential solutions.<sup>14</sup>

In addition, Army Futures Command officials told us the command intends to enhance its small business engagement through several initiatives—some of which are underway and some of which are in development. Officials told us they were not certain how many of these initiatives have led to specific contracts or awards, but noted that they had in some cases. Command officials told us that they have undertaken four initiatives to engage with small businesses for research and development:

- **Army Research Laboratory Open Campus 2.0** is based on an existing Army Research Laboratory program to transition scientific research from universities to Army technology concepts. It will work with the research communities within universities to develop these concepts and potentially commercialize them. This program is currently directed by the office of the Deputy Commanding General, which is located at the command's headquarters in Austin, Texas.
- **Army Capability Accelerator** is a new initiative that engages small businesses in developing and maturing concepts into prototypes and validating early-stage technologies. The accelerator is managed by the Army Applications Laboratory, which is located with the command's headquarters in Austin, Texas. It also provides the support and infrastructure needed to accelerate small businesses' concepts into solutions for warfighter capability gaps. Army Capability Accelerator has offices in Austin, Texas, and New York City, New York, and Army Futures Command intends to establish additional offices across the country. Army Capability Accelerator has hosted or co-hosted events allowing small businesses to demonstrate their capabilities and engage with the command. For example, the Austin office hosted a challenge competition in September 2018 to develop a solution for countering a drone threat. Similarly, according to officials, the New York City office hosted a challenge competition in December

---

<sup>14</sup>Army officials refer to challenge competitions as events where companies are provided with problems and are asked to develop innovative solutions to address them.

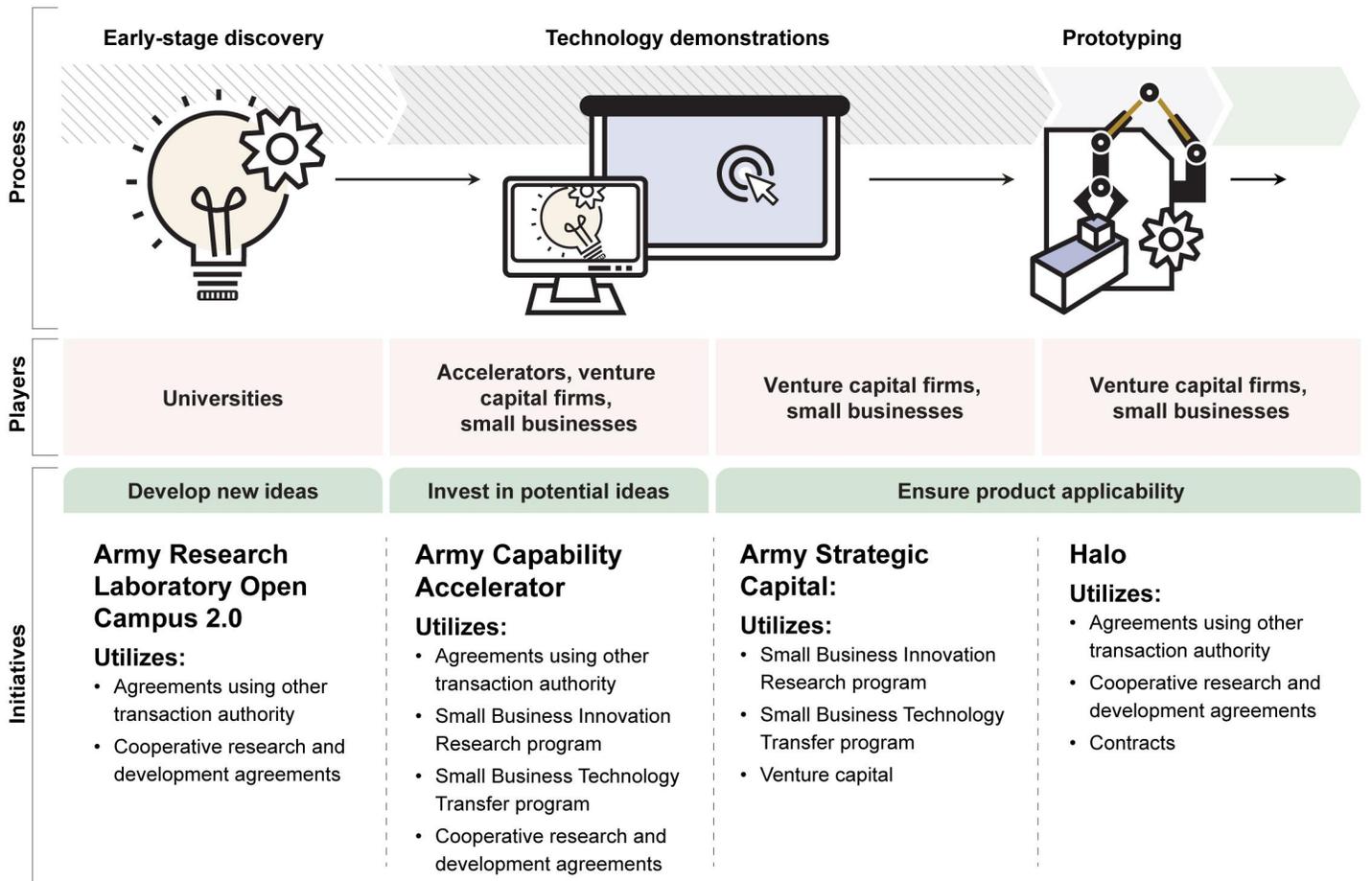
---

2018 where the command funded awards to small businesses for positioning, navigation, and timing capabilities.

- **Army Strategic Capital** is a proposed restructuring of a prior initiative intended to leverage venture capital to offset Army development costs through co-investment with existing Army Small Business Innovation Research and Small Business Technology Transfer programs. According to Army Futures Command officials, this initiative will be managed by the office of the Deputy Commanding General in Austin, Texas, but is in the planning stages and could involve legislative or policy changes to clarify or augment the authorities of the command.
- **Halo** is a new initiative intended to accelerate the adaptation and transition of commercial and startup-derived products to Army applications and programs. This initiative involves more mature technologies and focuses on the acceleration and integration of prototypes. Army officials stated that Army Applications Laboratory will manage this initiative and that it is under development.

These four initiatives are described further in Figure 3 below:

Figure 3: Examples of Initiatives to Enhance Small Business Engagement Planned by Army Futures Command



Source: GAO analysis of Army Futures Command documentation. | GAO-19-511

Army officials noted that many of their new initiatives address concerns raised by small businesses in working with the government, including the Army, on research and development activities. According to a representative involved with the capability accelerator office in Austin—which involves a private company that works with small businesses to facilitate opportunities both across the private sector and, now, with the Army—small businesses have expressed concerns about working with the government. Specifically, these representatives identified concerns related to barriers to entry, length of time to reach an award, and the complexity of the government contracting process, among others. Similarly, representatives from the capability accelerator office in New York City stated that the Army needs a way to increase its visibility to small businesses in order to attract the interest of these companies. Army

Futures Command officials acknowledged these concerns and said that they are developing efforts to alleviate or overcome them. For example, as part of its Halo initiative, the Army created a program intended to guide small businesses through the government contracting processes. In addition, Halo also plans to use business arrangements designed to decrease the time between initial contact with small businesses and the award of contracts or other agreements.

---

### Army Futures Command Has Not Fully Leveraged Army's Small Business Expertise but Is Working to Improve Coordination

In its initial efforts to enhance engagement with small businesses, Army Futures Command did not fully leverage the expertise of other Army organizations that previously facilitated small business engagement. Various Army officials have identified several early instances in which the command took steps to engage with small businesses without consulting other Army offices with relevant expertise. For example:

- **Army Office of Small Business Programs**—According to Army Office of Small Business Programs officials, the command did not consult with them (1) before engaging with small businesses in Texas for research and development efforts; (2) when establishing its small business office, which is still ongoing; and (3) before announcing hiring positions for that office. Army Office of Small Business Programs is positioned to provide direct support to various commands on small business activities. In particular, we previously reported that small business offices are responsible for assisting agencies in increasing small business participation and provide advice on acquisition strategies and market research.<sup>15</sup>
- **Subordinate Commands**—According to Army officials, Army Futures Command has not fully engaged the organizations that transitioned, or are transitioning to, the command in terms of small business research and development efforts. Combat Capabilities Development Command and its subordinate command Army Research Laboratory, these organizations have years of experience working with small businesses on research and development efforts. Army Research

---

<sup>15</sup>GAO, *Small Business Contracting: Actions Needed to Demonstrate and Better Review Compliance with Select Requirements for Small Business Advocates*, [GAO-17-675](#) (Washington, D.C.: Aug. 25, 2017).

Laboratory is the Army lead for the Small Business Technology Transfer program, and participates in the Small Business Innovation Research program along with other Combat Capabilities Development Command organizations; both of which are designed to stimulate technological innovation. Combat Capabilities Development Command officials stated they have had limited involvement with Army Futures Command headquarters on small business research and development issues. In addition, Medical Research and Development Command officials stated that Army Futures Command headquarters has not interacted with them on small business engagement beyond planning for the organization's transfer to Army Futures Command. Historically, Medical Research and Materiel Command participated in the Small Business Technology Transfer and the Small Business Innovation Research programs and conducted outreach to small businesses through various events, such as industry days and conferences focused on small businesses.

- **Office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology**—We reported in January 2019 that it was not yet clear how Army Futures Command will coordinate its responsibilities with the Office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology.<sup>16</sup> The office conducts outreach to small businesses, sponsors challenge competitions, and promotes small business participation in Army acquisitions.

More recently, according to Army officials, the command is seeking to improve and formalize coordination roles and responsibilities related to research and development within and outside the command. For example,

- Although a formalized agreement between the command and Army Office of Small Business Programs does not yet exist, the command is now actively consulting with this office. According to Army small business officials, the command has been familiarizing small business staff with their office and its small business research and development efforts. The command has also been establishing its small business office with support from Army Office of Small Business Programs. In addition, Army small business officials stated that the office is assessing the command's small business needs to determine how to allocate workforce resources. However, the effort has not been finalized.

---

<sup>16</sup>[GAO-19-132](#)

- The command is also working to formalize small business relationships within and among its components. As part of this, the command established a Directorate of Operations at headquarters to facilitate integration of command activities across components, which would include those related to small business research and development. However, the command has not yet assigned a permanent director for the new directorate.
- According to Army Futures Command officials, as well as Army documents, the command will continue to develop coordination procedures related to research and development with the Assistant Secretary of the Army for Acquisition, Logistics, and Technology. The command is also working with the Assistant Secretary's office on a challenge competition that aims to facilitate small business engagement with the Army and spur innovative technology.

Army Futures Command does not have its own procurement authority, so the Army Contracting Command will provide it with contracting support. This support includes making awards to small businesses on behalf of Army Futures Command. Army Contracting Command officials told us they are also supporting the establishment of an Army Futures Command contracting office that would advise on contracting needs. For example, they sent temporary support staff to the headquarters of the new command and are helping with recruitment efforts for permanent personnel.

Army Futures Command officials told us they had not prioritized coordinating with other Army organizations that have small business expertise because the command and its officials had other, more pressing priorities, such as establishing the command and engaging directly with small businesses as quickly as possible. Federal internal control standards state that during the establishment of an organizational structure management should consider how organizations across and outside of it interact in order to fulfill their overall responsibilities. This includes establishing reporting lines and roles and responsibilities within and outside the organization as they relate to small business engagement. With those coordination roles and responsibilities established, organizations are better able to communicate the quality information necessary to fulfill their overall small business engagement responsibilities.<sup>17</sup> By taking actions to formally coordinate with and leverage other Army organizations' expertise, such as coordinating

---

<sup>17</sup>[GAO-14-704G](#)

---

outreach events, Army Futures Command could improve its opportunities to engage with small businesses and obtain access to the innovative research and development they could provide. Further, if the command does not formalize coordination roles and responsibilities, it risks potentially duplicating small business-related work and creating overlap and fragmentation.

---

## Army Futures Command Has Not Yet Developed Tracking or Performance Measures for Small Business Engagement

---

### Army Futures Command Does Not Fully Track Small Business Engagement

As previously noted, Army Futures Command stated it is continuing the efforts of its subordinate commands to engage with small businesses and is taking additional steps to enhance engagement. However, command officials told us they do not systematically track the number and timing of outreach events, the number of participants at these events, and the extent to which these outreach efforts result in business arrangements such as contracts. As a result, Army Futures Command officials were uncertain of how often the command—across all of its components—was engaging with small businesses for research and development efforts. For example, Army Applications Laboratory officials were not able to identify the number and timing of challenge competitions the command has hosted or is planning to host in the future. Some organizations that have transitioned to Army Futures Command, such as Combat Capabilities Development Command, continue to track small business engagement activities for their component. However, Combat Capabilities Development Command officials told us that they were unsure if this data will be tracked at Army Futures Command headquarters.

According to Army Futures Command officials, the command has not prioritized tracking small business activities because it focused instead on establishing the command and engaging with small businesses as quickly as possible to identify innovative solutions. Officials did not provide a specific plan for tracking such engagement. According to Federal Internal Control Standards, management should establish monitoring activities for its internal control system and evaluate the results to remediate any identified challenge on a timely basis. Further, management should use

---

quality information from reliable sources in a timely manner to achieve the objectives of the command.<sup>18</sup>

By tracking its small business engagement activities, Army Futures Command would have a more comprehensive understanding of the various efforts underway across the command. This would provide opportunities to examine its overall small business engagement efforts. Tracking such information would also allow the command to make adjustments to those efforts to ensure it obtains the innovative input from small businesses the command has stated it needs to achieve its modernization goals. Tracking small business engagement across the command components could also help reduce inefficiencies including overlap, fragmentation, and duplication of its small business engagement efforts.

---

### Army Futures Command Has Not Yet Established Performance Measures to Assess Small Business Engagement

While Army Futures Command officials told us they consider small businesses to be critical to their success and they have taken steps to engage with small businesses, the command has not yet established measures for evaluating the effectiveness of that engagement across the command nor has it developed a plan to systematically assess these efforts. Command officials told us that they are in the process of considering various measures to do so, but they have not yet determined which specific measures, if any, they will use. There is also no time frame to establish these measures. According to Army Futures Command officials, they would consider small business engagement successful if, for example, a Small Business Innovation Research award resulted in an innovation or a technology that was later transitioned to a weapon systems program or a product that would further support an Army weapon systems program. Command officials told us they have not formalized and implemented these measures because the command and its officials have prioritized focusing on establishing the new command.

Components subsumed by Army Futures Command have historically used performance measures to assess their small business engagement. For example, officials from Combat Capabilities Development Command

---

<sup>18</sup>[GAO-14-704G](#)

told us that they previously used several outcome-based measures, including the number of Small Business Innovation Research products incorporated into fielded Army acquisition programs, contracts awarded to small businesses, and total dollars obligated to small businesses for research and development. This previously collected information was then provided to management in various small business offices in semiannual reports. Officials told us they have continued to monitor this information since the transition to Army Futures Command. Officials from Medical Research and Development Command also reported that they have performance measures and that they use these measures to assess the success of their small business engagement. For example, they said that they develop summary reports after outreach events with small businesses. These reports describe the event, outcomes, and how participation at the event enhanced utilization of small businesses for research and development efforts. The reports are also used internally as market research for future opportunities.

Internal control standards call for management to use quality information to make informed decisions and to define objectives in specific and measurable terms so that performance toward achieving those objectives can be assessed. Management should also determine whether performance measures for the objectives are appropriate for evaluating performance. Once performance measures are defined, management should then establish and operate monitoring activities that allow them to evaluate the effectiveness of the internal control system. Establishing performance measures and developing a plan to capture and monitor information on its small business engagement would help ensure Army Futures Command is not missing opportunities to make informed management and investment decisions for its research and development efforts. Establishing these measures and a plan to monitor how the command assesses small business engagement would also help it to evaluate the overall effectiveness of its small business engagement in providing support to the warfighter and identifying which small business efforts have been most effective.

---

## Conclusions

The establishment of Army Futures Command represents a considerable change to how the Army develops new weapon systems and prepares for the future. While Army Futures Command is still finalizing how it will operate, it is already engaging with small businesses in various ways. However, the command could better manage these efforts. In particular,

formalizing coordination roles and responsibilities with Army organizations that already have small business experience, such as the Army Office of Small Business Programs, would allow the command to leverage additional expertise as it pertains to small business engagement for research and development.

In addition, Army Futures Command does not systematically track engagement across the command. By tracking this activity, the command could more effectively oversee and manage overall small business engagement.

Finally, while Army Futures Command officials consider engaging with small businesses critical to the success of modernization, it has not yet developed performance measures to assess the effectiveness of its small business engagement nor has it developed a plan for systematically assessing its efforts. Establishing performance measures, and using them to assess small business engagement, would provide the command with information to evaluate, and potentially enhance, its engagement with small businesses to help accomplish its research and development efforts.

---

## Recommendations for Executive Action

We are making three recommendations to the Secretary of the Army.

The Secretary of the Army should direct the Commanding General of Army Futures Command to formalize coordination roles and responsibilities for small business engagement in support of research and development with relevant Army entities. (Recommendation 1)

The Secretary of the Army should direct the Commanding General of Army Futures Command to systematically track its small business engagement in support of research and development across its subordinate organizations. (Recommendation 2)

The Secretary of the Army should direct the Commanding General of Army Futures Command, in coordination with relevant Army entities, to establish command-wide performance measures and develop a plan to use these measures to systematically assess the effectiveness of small business engagement in support of research and development. (Recommendation 3)



---

## Agency Comments

We provided a draft of this report to the Army for review and comment. In its written comments, reproduced in appendix II, the Army concurred with all three of our recommendations. The Army also provided technical comments which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees; the Acting Secretary of Defense; and the Acting Secretary of the Army. In addition, the report is available at no charge on the GAO Website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-4841 or [LudwigsonJ@gao.gov](mailto:LudwigsonJ@gao.gov). Contact points for our offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.

Sincerely yours,



Jon Ludwigson  
Acting Director,  
Contracting and National Security Acquisitions

## Appendix I: Objectives, Scope, and Methodology

You asked us to examine how small businesses that support research and development efforts could be affected by the establishment of Army Futures Command. This report (1) describes what analyses, if any, the Army conducted to determine the effect of its modernization initiatives on small businesses; (2) describes how Army Futures Command is engaging with small businesses to support research and development efforts and assesses how it is coordinating with other relevant Army organizations; and (3) assesses how Army Futures Command plans to track and measure the performance of its engagement with small businesses to support research and development efforts.

We analyzed research and development contract awards and obligations made during fiscal years 2013 through 2017 for the Army. The data are presented in the background as it is prior to the establishment of Army Futures Command in 2018. For the number of contracts, we used the number of new base contract awards for research and development. For the obligations, we analyzed both newly awarded base contracts and associated orders under indefinite-delivery contracts since funds would be obligated at the order level. The obligations in this analysis include only those made during the fiscal year the contract was awarded. To identify and analyze contracts awarded during that time period, we requested data in the Federal Procurement Data System-Next Generation database from the Army. The Army used the product and service codes for research and development to extract the relevant data for fiscal years 2013 through 2017. The data also included contracts awarded through the Small Business Innovation Research and Small Business Technology Transfer programs for that time period and business size and registered location. We excluded foreign military sales obligations. We did not include subcontractor data. We obtained the funding codes for organizations that are transitioning to Army Futures Command, which includes the former Army Research, Development, and Engineering Command and the Army Medical Research and Materiel Command, portions of which are transitioning to the new command. To determine the proportion of contracts and associated obligations that supported these organizations, we used their funding codes to identify the number of contracts and associated obligations during our selected time period. To

assess the reliability of the Federal Procurement Data System-Next Generation data, we electronically tested for missing data, outliers, and inconsistent coding. Based on these steps, we determined the data were sufficiently reliable for identifying and analyzing Army contracts awarded from fiscal years 2013 through 2017 for research and development efforts and their obligations. We obtained data on grants, cooperative agreements, and other types of agreements using the Defense Assistance Awards Data System. We conducted initial analysis on the data and discussed reliability and validity of the data with agency officials. As a result, we determined that the data were not sufficiently reliable for the purpose of this engagement and we excluded them from our review.

To describe analyses the Army conducted on the potential effect modernization efforts could have on small businesses, we collected and reviewed available studies and analyses the Army conducted. We reviewed the Army's science and technology portfolio analysis, studies related to the establishment and future organizational structure of Army Futures Command, and the Army's modernization strategy to determine if the Army analyzed how small businesses could be affected.

To describe how Army Futures Command is engaging with small businesses to support research and development efforts, we reviewed policies, procedures, and guidance from the Department of Defense, Department of the Army, Army Futures Command, and other relevant Army organizations on small business engagement. We also reviewed relevant sections of the Federal Acquisition Regulation, as well as Defense and Army supplements to the Federal Acquisition Regulation, to understand the framework for small business participation in support of research and development efforts. We also reviewed relevant statutes, regulations, and policies regarding research and development and small business programs. We collected and analyzed documentation on how Army Futures Command engages with small businesses, including its roles and responsibilities, outreach efforts, and award documentation as well as those of its subordinate components. To assess how Army Futures Command coordinates with other Army organizations, we reviewed policy documentation, such as a memorandum of understanding on coordinating contract support and for small business engagement, in addition to operational orders outlining roles and responsibilities. We assessed the information we collected against Federal Standards for

---

Internal Control related to organizational structure, reporting lines, roles and responsibilities, and using quality information.<sup>1</sup>

To assess how Army Futures Command plans to track and measure its engagement with small businesses, we reviewed policies from the Department of Defense and Army on engagement with small businesses. To understand how Army Futures Command plans to track its small business engagement, we reviewed policy documentation from the command, operational orders, briefs and memoranda. We also reviewed documentation on how organizations tracked this data prior to transitioning to Army Futures Command. In order to assess any performance measures Army Futures Command plans to use to evaluate its small business engagement, we reviewed available documentation on the establishment of the command. We also reviewed documentation from organizations transitioning to Army Futures Command to determine how these organizations previously monitored and evaluated their small business engagement. In addition, we assessed the information we collected against Federal Standards for Internal Control related to establishing monitoring activities, using quality information, defining objectives, and evaluating results.<sup>2</sup>

To more completely understand the small business engagement efforts of the new command, we interviewed officials from various Army offices, including the Office of the Under Secretary of the Army, Army Futures Command, organizations transitioning to the new command, Army Office of Small Business Programs, members of the Office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, and Army Contracting Command. We also met with two private sector entities the Army has coordinated with for outreach to small businesses. These entities have experience in engaging small businesses both in the private sector and for government programs and discussed with us the concerns and challenges small businesses have in working with the government. These views are not generalizable but provide perspective on matters relevant to the Army's efforts to engage with small businesses.

We conducted this performance audit from September 2018 to July 2019 in accordance with generally accepted government auditing standards.

---

<sup>1</sup>GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: Sept. 10, 2014).

<sup>2</sup>[GAO-14-704G](#)

---

Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

---

# Appendix II: Comments from the Department of Army

Appendix II: Comments from the Department  
of Army



DEPARTMENT OF THE ARMY  
102 ARMY PENTAGON  
WASHINGTON, DC 20310-0101

JUL 10 2019

Mr. Jon Ludwigson  
Director, Contracting and National Security Acquisitions  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Mr. Ludwigson,

Attached are the Department of Army Comments to the GAO Recommendations in the U.S. Government Accountability Office's July 2019 Draft Report, GAO-19-511, "Army Modernization: Army Futures Command Should Take Steps to Improve Small Business Engagement for Research and Development."

My point of contact is Ms. Pamela D. Callicutt at [pamela.d.callicutt.civ@mail.mil](mailto:pamela.d.callicutt.civ@mail.mil) or (703) 693-6791.

Sincerely,

A handwritten signature in black ink, appearing to read "J.E. McPherson", is positioned above the typed name.

James E. McPherson  
Performing the Duties  
of the Under Secretary of the Army

Enclosure

GAO DRAFT REPORT DATED MAY 31, 2019  
GAO-19-511 (GAO CODE 103034)

“ARMY MODERNIZATION: ARMY FUTURES COMMAND SHOULD TAKE STEPS  
TO IMPROVE SMALL BUSINESS ENGAGEMENT FOR RESEARCH AND  
DEVELOPMENT”

DEPARTMENT OF ARMY (DA) COMMENTS TO THE GAO RECOMMENDATIONS

**RECOMMENDATION 1:** The GAO recommends that the Secretary of the Army should direct the Commanding General of Army Futures Command (AFC) to formalize coordination roles and responsibilities for small business engagement in support of research and development with relevant Army entities. (Recommendation 1)

**DA RESPONSE:** DA concurs with the GAO’s Recommendation #1, the Commanding General AFC will formalize coordination roles and responsibilities for small business engagement in support of research and development with relevant Army entities no later than 20 June 2020.

**RECOMMENDATION 2:** The GAO recommends that the Secretary of the Army should direct the Commanding General of Army Futures Command to systematically track its small business engagement in support of research and development across its subordinate organizations (Recommendation 2)

**DA RESPONSE:** DA concurs with the GAO’s Recommendation #2, the Commanding General of AFC will establish a process and procedures to systematically track its small business engagement in support of research and development across its subordinate organizations no later than 20 June 2020.

**RECOMMENDATION 3:** The GAO recommends that the Secretary of the Army should direct the Commanding General of Army Futures Command, in coordination with relevant Army entities, to establish command-wide performance measures and develop a plan to use these measures to systematically assess the effectiveness of small business engagements in support of research and development. (Recommendation 3)

**DA RESPONSE:** DA concurs with the GAO’s Recommendation #3, the Commanding General of AFC, in coordination with relevant Army entities, will establish command-wide performance measures and develop a plan to use these measures to systematically assess the effectiveness of small business engagements in support of research and development no later than 20 June 2020.

---

# Appendix III: GAO Contact and Staff Acknowledgments

---

## GAO Contact

Jon Ludwigson at (202) 512-4841 or [LudwigsonJ@gao.gov](mailto:LudwigsonJ@gao.gov).

---

## Staff Acknowledgments

In addition to the contact named above, J. Kristopher Keener (Assistant Director), Andrea C. Evans (Analyst-in-Charge), Hilary Benedict, Emily Bond, Frederick K. Childers, Matthew T. Crosby, Lori A. Fields, Julia Kennon, Jean McSween, Monique Nasrallah, Anh Nguyen, Kevin O'Neill, William Shear, and Anne Stevens made contributions to this report.

# Appendix IV: Accessible Data

## Data Table

**Accessible Data for Figure 2: Small Business Contracting Activity during Fiscal Years 2013 through 2017 for Army Research and Development**

State	Number of Small Businesses	Number of Contracts	Dollar Categories
ALABAMA	60	200	over \$100 million
ALASKA	5	5	over \$1 million to \$50 million
ARIZONA	30	57	over \$1 million to \$50 million
ARKANSAS	1	1	\$1 million or less
CALIFORNIA	277	786	over \$100 million
COLORADO	56	135	over \$50 million to \$100 million
CONNECTICUT	22	41	over \$1 million to \$50 million
DELAWARE	7	24	over \$1 million to \$50 million
DISTRICT OF COLUMBIA	6	9	over \$1 million to \$50 million
FLORIDA	81	232	over \$100 million
GEORGIA	30	58	over \$1 million to \$50 million
HAWAII	16	37	over \$1 million to \$50 million
IDAHO	4	5	\$1 million or less
ILLINOIS	50	98	over \$1 million to \$50 million
INDIANA	13	25	over \$1 million to \$50 million
IOWA	7	11	over \$1 million to \$50 million
KANSAS	6	7	over \$1 million to \$50 million
KENTUCKY	7	8	over \$1 million to \$50 million
LOUISIANA	3	3	\$1 million or less
MAINE	5	5	over \$1 million to \$50 million
MARYLAND	132	328	over \$100 million
MASSACHUSETTS	128	489	over \$100 million
MICHIGAN	59	156	over \$50 million to \$100 million
MINNESOTA	25	47	over \$1 million to \$50 million
MISSISSIPPI	11	26	over \$1 million to \$50 million

Appendix IV: Accessible Data

State	Number of Small Businesses	Number of Contracts	Dollar Categories
MISSOURI	13	20	over \$1 million to \$50 million
MONTANA	4	10	over \$1 million to \$50 million
NEBRASKA	1	1	\$1 million or less
NEVADA	10	21	over \$1 million to \$50 million
NEW HAMPSHIRE	19	74	over \$1 million to \$50 million
NEW JERSEY	54	112	over \$1 million to \$50 million
NEW MEXICO	24	48	over \$1 million to \$50 million
NEW YORK	78	144	over \$50 million to \$100 million
NORTH CAROLINA	49	118	over \$50 million to \$100 million
NORTH DAKOTA	3	3	over \$1 million to \$50 million
OHIO	55	136	over \$50 million to \$100 million
OKLAHOMA	11	22	over \$1 million to \$50 million
OREGON	17	40	over \$1 million to \$50 million
PENNSYLVANIA	76	195	over \$50 million to \$100 million
PUERTO RICO	2	3	\$1 million or less
RHODE ISLAND	8	11	over \$1 million to \$50 million
SOUTH CAROLINA	6	11	over \$1 million to \$50 million
SOUTH DAKOTA	5	5	over \$1 million to \$50 million
TENNESSEE	14	24	over \$1 million to \$50 million
TEXAS	90	215	over \$50 million to \$100 million
UTAH	24	44	over \$1 million to \$50 million
VERMONT	7	13	over \$1 million to \$50 million
VIRGINIA	165	373	over \$100 million
WASHINGTON	30	45	over \$1 million to \$50 million
WEST VIRGINIA	6	9	over \$1 million to \$50 million
WISCONSIN	11	19	over \$1 million to \$50 million
WYOMING	2	3	over \$1 million to \$50 million
Total	1825	4514	
	Individual Small Businesses 1815		

---

## Agency Comment Letter

---

### Accessible Text for Appendix II Comments from the Department of Army

Page 1

JUL 10 2019

Mr. Jon Ludwigson

Director, Contracting and National Security Acquisitions

U.S. Government Accountability Office

441 G Street, NW

Washington, DC 20548

Dear Mr. Ludwigson,

Attached are the Department of Army Comments to the GAO Recommendations in the U.S. Government Accountability Office's July 2019 Draft Report, GAO-19-511, "Army Modernization: Army Futures Command Should Take Steps to Improve Small Business Engagement for Research and Development."

My point of contact is Ms. Pamela D. Callicutt at [pamela.d.callicutt.civ@mail.mil](mailto:pamela.d.callicutt.civ@mail.mil) or (703) 693-6791.

Sincerely,

James E. McPherson

Performing the Duties of the Under Secretary of the Army

Enclosure

---

Page 2

GAO DRAFT REPORT DATED MAY 31, 2019 GAO-19-511 (GAO CODE 103034)

“ARMY MODERNIZATION: ARMY FUTURES COMMAND SHOULD TAKE STEPS TO IMPROVE SMALL BUSINESS ENGAGEMENT FOR RESEARCH AND DEVELOPMENT”

DEPARTMENT OF ARMY (DA) COMMENTS TO THE GAO RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommends that the Secretary of the Army should direct the Commanding General of Army Futures Command (AFC) to formalize coordination roles and responsibilities for small business engagement in support of research and development with relevant Army entities. (Recommendation 1)

DA RESPONSE: DA concurs with the GAO’s Recommendation #1, the Commanding General AFC will formalize coordination roles and responsibilities for small business engagement in support of research and development with relevant Army entities no later than 20 June 2020.

RECOMMENDATION 2: The GAO recommends that the Secretary of the Army should direct the Commanding General of Army Futures Command to systematically track its small business engagement in support of research and development across its subordinate organizations (Recommendation 2)

DA RESPONSE: DA concurs with the GAO’s Recommendation #2, the Commanding General of AFC will establish a process and procedures to systematically track its small business engagement in support of research and development across its subordinate organizations no later than 20 June 2020.

RECOMMENDATION 3: The GAO recommends that the Secretary of the Army should direct the Commanding General of Army Futures Command, in coordination with relevant Army entities, to establish command-wide performance measures and develop a plan to use these measures to systematically assess the effectiveness of small business engagements in support of research and development. (Recommendation 3)

---

DA RESPONSE: DA concurs with the GAO's Recommendation #3, the Commanding General of AFC, in coordination with relevant Army entities, will establish command-wide performance measures and develop a plan to use these measures to systematically assess the effectiveness of small business engagements in support of research and development no later than 20 June 2020.

---

---

## GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

---

## Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's website (<https://www.gao.gov>). Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to <https://www.gao.gov> and select "E-mail Updates."

---

## Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, <https://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

---

## Connect with GAO

Connect with GAO on [Facebook](#), [Flickr](#), [Twitter](#), and [YouTube](#).  
Subscribe to our [RSS Feeds](#) or [E-mail Updates](#). Listen to our [Podcasts](#).  
Visit GAO on the web at <https://www.gao.gov>.

---

## To Report Fraud, Waste, and Abuse in Federal Programs

Contact FraudNet:

Website: <https://www.gao.gov/fraudnet/fraudnet.htm>

---

Automated answering system: (800) 424-5454 or (202) 512-7700

---

## Congressional Relations

Orice Williams Brown, Managing Director, [WilliamsO@gao.gov](mailto:WilliamsO@gao.gov), (202) 512-4400,  
U.S. Government Accountability Office, 441 G Street NW, Room 7125,  
Washington, DC 20548

---

## Public Affairs

Chuck Young, Managing Director, [youngc1@gao.gov](mailto:youngc1@gao.gov), (202) 512-4800  
U.S. Government Accountability Office, 441 G Street NW, Room 7149  
Washington, DC 20548

---

## Strategic Planning and External Liaison

James-Christian Blockwood, Managing Director, [spel@gao.gov](mailto:spel@gao.gov), (202) 512-4707  
U.S. Government Accountability Office, 441 G Street NW, Room 7814,  
Washington, DC 20548



**Please Print on Recycled Paper.**