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ARMED FORCES  
INSTITUTE OF  
PATHOLOGY

Business Plan's  
Implementation Is  
Unlikely to Achieve  
Expected Financial  
Benefits and Could  
Reduce Civilian Role





Highlights of [GAO-05-615](#), a report to congressional committees

## Why GAO Did This Study

DOD has raised concerns about certain business practices of the Armed Forces Institute of Pathology (AFIP), including its role in civilian medicine. In response, AFIP implemented changes and drafted a business plan. On May 13, 2005, DOD recommended closing AFIP as part of the Base Realignment and Closure process. The Senate Committee on Armed Services, in a report accompanying the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, directed that GAO study AFIP's business plan. GAO (1) described the business plan's key initiatives and projected financial benefits, (2) evaluated the business plan's potential to improve internal controls and achieve financial benefits, and (3) assessed the likely impact of the business plan on the role of AFIP in military and civilian medicine. GAO reviewed the major assumptions and analyses for developing the plan and interviewed AFIP and DOD officials, and members of the civilian medical community.

## What GAO Recommends

In order to better manage changes being instituted at AFIP, GAO recommends that the Assistant Secretary of Defense for Health Affairs reevaluate the financial benefits projected in AFIP's business plan so that DOD will have a more reliable estimate of AFIP's revenues and expenses. DOD concurred with GAO's findings and recommendation.

[www.gao.gov/cgi-bin/getrpt?GAO-05-615](http://www.gao.gov/cgi-bin/getrpt?GAO-05-615).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Marcia Crosse at (202) 512-7101.

# ARMED FORCES INSTITUTE OF PATHOLOGY

## Business Plan's Implementation Is Unlikely to Achieve Expected Financial Benefits and Could Reduce Civilian Role

### What GAO Found

AFIP's business plan has four key initiatives: improving AFIP's business practices, increasing the amount of services it provides for the military, reducing staff, and consolidating its facilities. The business plan describes various efforts in support of each of these initiatives. AFIP estimated that the changes described in its business plan will result in \$17.5 million in annual financial benefits.

Under the business plan, AFIP improved internal controls over some of its operations, particularly over AFIP's consultation services and related finances; however, AFIP has not implemented other internal controls described in the business plan such as developing a system to determine AFIP's costs for performing specific activities. In addition, GAO's review indicated that AFIP is unlikely to achieve all of the financial benefits projected in the business plan. Financial benefits from the business plan will likely be approximately \$5 million—\$12.5 million less than AFIP projected.

In implementing its business plan, AFIP has changed its balance of military and civilian work, and AFIP and civilian pathologists said that these trends are likely to continue. DOD and AFIP officials have stated that they want to preserve AFIP's civilian work but do not want to fund it with increasingly scarce DOD funds. Over the last several years, AFIP has reduced the amount of consultation, research, and education services it provides for the civilian medical community and increased the amount of services it provides for the military. AFIP pathologists told GAO that they expect AFIP's civilian consultation, research, and education to continue to decline in the future. Half of AFIP's 20 department chairs believe that the business plan would negatively affect AFIP's ability to attract top pathologists in the future.

Although DOD recently recommended the closure of AFIP as a part of the Base Realignment and Closure process, the process has not been completed. Until the process is completed, AFIP's inability to achieve its projected financial benefits could result in a budget shortfall because DOD officials said they intend to reduce AFIP's funding by the amount of the financial benefits projected in the business plan.

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## Abbreviations

AFIP	Armed Forces Institute of Pathology
ARP	American Registry of Pathology
BRAC	Base Realignment and Closure
DNA	deoxyribonucleic acid
DOD	Department of Defense
MID	Management Initiative Decision
PAE	Office of Program Analysis and Evaluation
PDM	Program Decision Memorandum
PIMS	Pathology Information Management System
VA	Department of Veterans Affairs

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United States Government Accountability Office  
Washington, DC 20548

June 30, 2005

The Honorable John Warner  
Chairman  
The Honorable Carl Levin  
Ranking Minority Member  
Committee on Armed Services  
United States Senate

The Honorable Duncan L. Hunter  
Chairman  
The Honorable Ike Skelton  
Ranking Minority Member  
Committee on Armed Services  
House of Representatives

The Armed Forces Institute of Pathology (AFIP) supports the Department of Defense (DOD), other government agencies, and the civilian medical community by providing pathology consultation, medical education, and research. Although AFIP is a military agency funded primarily by DOD, the institute also has a mission to serve the civilian medical community. AFIP performs consultations—which are based on laboratory analyses of tissue or other specimens used to diagnosis disease—for all branches of the military without charge, while offering this service on a reimbursable basis for its civilian customers. AFIP also provides consultations for the Department of Veterans Affairs' (VA) healthcare system in exchange for a specified number of VA staff positions assigned to AFIP. In 2004 AFIP performed over 50,000 consultations, provided educational instruction for over 2,000 medical professionals, and conducted 296 research studies. AFIP has collaborated with the American Registry of Pathology (ARP)—a nonprofit organization that serves as a fiscal intermediary between AFIP and civilian medicine—to develop the world's largest collection of rare and unusual disease specimens and expertise in the field of pathology.

In the late 1990s, DOD examined AFIP's future role within the military health system after AFIP requested that DOD build a new facility for AFIP or repair AFIP's primary facility, which is on the Walter Reed Army Medical Center campus in Washington D.C., for an estimated cost of \$250 million. From 1998 through 2002, DOD conducted a series of reviews that concluded that AFIP lacked controls over its financial operations and that it provided services for the civilian medical community without

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adequate reimbursement. These reviews concluded that DOD, in effect, subsidized AFIP's work for civilian customers. DOD also found it difficult to estimate the amount of the subsidy because AFIP did not have adequate data to determine the costs of providing civilian services.

In response to the concerns raised in the reviews, DOD directed AFIP to develop and implement a business plan. Specifically, DOD directed AFIP to develop a business plan to improve the institute's internal controls so that AFIP could better account for the delivery and costs of its civilian and military work. DOD also required that the business plan outline steps for increasing AFIP's revenues and lowering its overall costs to reduce the level of funding provided to AFIP. According to DOD officials, this would eliminate DOD's subsidy of AFIP's civilian work. AFIP began to make changes to its operations as early as 2000 in response to findings from the DOD reviews. In 2002 and 2003, AFIP developed the written business plan, which included some changes that AFIP had already made in its operations.<sup>1</sup> AFIP planned to complete implementation of the business plan by October 2004.

DOD is again in the process of evaluating the future role of AFIP and the services that it provides. On May 13, 2005, DOD recommended the closure of AFIP as a part of the Base Realignment and Closure (BRAC) process. This would require that the services currently provided by AFIP be discontinued, transferred to other parts of DOD, or contracted out to the civilian medical community.

The Senate Committee on Armed Services, in a report accompanying the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, directed that we conduct a study of AFIP's business plan.<sup>2</sup> In this report, we (1) describe the business plan's key initiatives and projected financial benefits, (2) evaluate the business plan's potential to improve AFIP's internal controls and achieve its projected financial benefits, and (3) assess the likely impact of the business plan on the role of AFIP in military and civilian medicine.

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<sup>1</sup>DOD and AFIP staff generally refer to the document describing planned changes to AFIP's operations as "the business plan." However, its formal title is *The Transformation Plan of the Armed Forces Institute of Pathology*. In this report, we refer to this document as "the business plan."

<sup>2</sup>S. Rep. No. 108-260, at 349 (2004).

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To describe the business plan's key initiatives and projected financial benefits, we reviewed the business plan as well as numerous studies of AFIP that contributed to the plan's development. We interviewed officials from AFIP; ARP; the Office of the Surgeon General of the Army; the Office of the Assistant Secretary of Defense for Health Affairs; and the Office of the Under Secretary of Defense, Comptroller. To evaluate the business plan's potential to improve AFIP's internal controls and achieve its projected financial benefits, we interviewed AFIP and ARP officials and reviewed the assumptions and analyses that led to specific elements of the business plan. In some cases, we were able to compare projections in the plan with information collected after specific changes had been implemented. In other cases, we evaluated the assumptions upon which specific analyses were based. We also interviewed officials and senior pathologists from AFIP to understand the effects of the business plan on the major areas of AFIP's operations. To assess the likely impact of the business plan on the role of AFIP in military and civilian medicine, we interviewed the AFIP staff described above, as well as pathologists from both the civilian and military medical communities, including representatives from the College of American Pathologists and members of AFIP's Scientific Advisory Board.<sup>3</sup> We also reviewed data on AFIP's consultation, research, and educational services to see how they have changed since the development and implementation of the business plan.

We evaluated a written copy of the business plan, dated October 2003, which was described by AFIP officials as the most current draft of the business plan at the time we performed our work. AFIP officials said that there is no "final" version of the plan because it is an evolving document. While some of the changes described in the plan occurred as early as 2000, others occurred after that time or had not been implemented at the time of our work. Therefore, in this report, we generally provide data from 2000 to 2004.

We interviewed AFIP and ARP staff to determine how data were collected and maintained, but we did not independently verify the accuracy of the data. Data reliability has been the subject of critical findings in DOD's reviews of AFIP. AFIP officials demonstrated the systems they use to maintain data and described their efforts to ensure the data's accuracy. In

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<sup>3</sup> AFIP's Scientific Advisory Board is made up of pathologists from both the civilian and military medical communities. The board provides the Director of AFIP and her staff with scientific and professional advice in matters pertaining to the operational programs, policies, and procedures of AFIP.

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some cases, AFIP provided us with data that differed from those published in earlier reports and occasionally provided updated data during the course of this review that differed from the data it had provided earlier. AFIP officials explained that this was due to ongoing efforts on their part to improve the quality of their data. We determined that the AFIP data used in this report were adequate. We performed our work from August 2004 through June 2005 in accordance with generally accepted government auditing standards. (See app. I for more details on our methodology.)

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## Results in Brief

AFIP's business plan includes four key initiatives that are primarily intended to improve AFIP's internal controls and reduce the amount of DOD funds supporting AFIP's civilian work. To do this, the business plan calls for AFIP to (1) improve its business practices, such as controls over its consultation services and related finances; (2) increase the amount of services it provides for the military, such as an increase in defense-related research and educational services; (3) reduce staff from 820 to 685 positions; and (4) consolidate its facilities. The business plan describes various efforts in support of each of these four key initiatives. AFIP estimated that the changes described in its business plan will result in financial benefits from a combination of increased revenues and reduced costs that would allow DOD to reduce its annual funding of AFIP by \$17.5 million. To ensure that AFIP reduces the amount of DOD funds supporting civilian work, DOD plans to reduce AFIP's future funding by the amount that AFIP estimates it will save.

In implementing its business plan, AFIP has improved some internal controls over its services and related finances; however, AFIP is unlikely to achieve the plan's projected financial benefits. The implementation of the business plan improved a number of internal controls at AFIP, particularly over AFIP's consultation services and related finances, but AFIP has not implemented other internal controls described in the business plan. For example, AFIP has not developed a system to determine the costs associated with providing civilian services. In addition, even if AFIP fully implemented its business plan, it would be unlikely to achieve the projected financial benefits of \$17.5 million per year. Because many of these projections were developed using inaccurate or incomplete data, we estimate that the financial benefits from implementing the business plan are likely to be significantly lower—approximately \$5 million annually. For example, AFIP projected that it would increase its revenues by \$7.4 million annually by increasing the fees it charges to civilians for consultation services and improving the



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collection rate of those fees. However, AFIP will probably achieve only \$1 million in additional revenues from these changes, which is almost entirely the result of increased fees.

In implementing its business plan, AFIP has changed its balance of military and civilian work. AFIP and civilian pathologists told us that these trends are likely to continue as AFIP proceeds with the implementation of its business plan. DOD and AFIP officials have stated that they want to preserve AFIP's civilian work but do not want to fund it with increasingly scarce DOD funds. However, over the last several years, AFIP has reduced the amount of consultation, research, and education services it provides for the civilian medical community and increased the amount of services it provides for the military. Many AFIP pathologists and civilian physicians told us that civilian work is essential for fulfilling the institute's mission because civilian cases help maintain the diagnostic expertise of AFIP's professional staff. AFIP has also lost expertise within the institute because of staff reductions called for by the business plan. Half of AFIP's 20 department chairs said that the business plan would negatively affect AFIP's ability to attract top pathologists in the future.

In order to better manage changes being instituted at AFIP, we recommend that the Assistant Secretary of Defense for Health Affairs reevaluate the financial benefits projected in AFIP's business plan so that DOD will have a more reliable estimate of AFIP's revenues and expenses. In commenting on a draft of this report, DOD concurred with the report's findings and recommendation, noting that DOD continues to monitor the implementation of AFIP's business plan and the impact of the BRAC process on AFIP. DOD also said that the U.S. Army Audit Agency will begin an audit of AFIP business practices to determine if the institute is operating effectively and efficiently, and possesses the tools to accurately articulate costs, accomplishments, and contributions to the military mission.

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## Background

AFIP originated as part of the Army Medical Museum in 1862 as a repository for disease specimens collected from Civil War soldiers. In 1888 the educational facilities of the museum were made available to civilian medical professionals. The Army Institute of Pathology was created as a part of the museum in 1944, using the museum's extensive collection of disease specimens to develop expertise in diagnostic pathology. By 1949 the Army Institute of Pathology was renamed the Armed Forces Institute of Pathology, and the museum had become a unit within AFIP. The Department of Defense Appropriation Authorization Act, 1977, provided

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specific statutory authority for AFIP, establishing it as a joint entity of the Departments of the Army, Navy, and Air Force, subject to the authority, direction, and control of the Secretary of Defense.<sup>4</sup> The Secretary of Defense has delegated authority, direction, and control over AFIP to the Assistant Secretary of Defense for Health Affairs. The Secretary of the Army is the Executive Agent for AFIP and has delegated Executive Agent authority to the Army Surgeon General.<sup>5</sup>

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## AFIP's Mission

AFIP's primary mission is to provide medical expertise in pathology consultation, education, and research for civilian and military medicine. Unlike most pathologists, AFIP pathologists specialize in a particular type of consultation where they are asked to provide a second opinion for difficult cases. These consultations typically occur because another military or civilian pathologist was either unable to make a diagnosis or unsure of his or her initial diagnosis.<sup>6</sup> In 2003, for example, AFIP pathologists made a major or minor change to the initial diagnosis in nearly half of the cases they diagnosed. Because AFIP generally receives tissue specimens in order to make these diagnoses, consultations have also been instrumental in expanding AFIP's repository of disease specimens. AFIP has over 3 million disease specimens and their accompanying case histories dating back over 150 years.

AFIP disseminates the knowledge gained from its consultation cases through its education and research activities. Each year, AFIP provides educational instruction for over 2,000 civilian and military medical professionals. In developing educational courses, AFIP staff query a database of recent consultations, searching for cases where a physician has either misdiagnosed a disease or the physician was unable to provide a diagnosis. AFIP then teaches courses in how to diagnose such diseases, with particular emphasis on identifying emerging diseases, offering new insights into known diseases, and giving hands-on experience in diagnosing difficult cases. AFIP also trains both civilian and military

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<sup>4</sup>Pub. L. No. 94-361, § 811, 90 Stat. 923, 933-936 (1976) (codified at 10 U.S.C. §§ 176, 177 (2000)).

<sup>5</sup>The DOD Executive Agent for AFIP is responsible for the administration of resources required to support the missions and functions of AFIP, as well as reporting on AFIP's activities to the Assistant Secretary of Defense for Health Affairs.

<sup>6</sup>For the purpose of this report, unless otherwise noted, "consultations" refers to second-opinion surgical consultations.

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residents and fellows in the fields of pathology, radiology, and veterinary pathology. In addition to these educational activities, AFIP conducts research that results in hundreds of scientific publications per year. For example, AFIP pathologists recently published new research on the 1918 Spanish influenza virus using tissue specimens from a World War I soldier who died from the virus.

In addition to its mission of providing consultation, education, and research, AFIP has a number of other missions that have been established by Congress or DOD. For example, AFIP maintains the National Museum of Health and Medicine, which serves as a repository of anatomic, pathological, and historical artifacts. AFIP also houses the Office of the Armed Forces Medical Examiner, which was established at AFIP in 1988 to provide DOD and other federal agencies with a variety of services in forensic medicine. New technological developments in the forensic sciences—such as the use of deoxyribonucleic acid (DNA)—have been incorporated into AFIP through additions such as the Armed Forces DNA Identification Laboratory. AFIP conducts a variety of other activities that include

- maintaining a DNA registry of all military personnel;
- conducting research on biological agents, such as anthrax;
- identifying the remains of soldiers of past wars;
- collecting data on medical malpractice cases in the military; and
- performing drug testing for the Armed Forces.

(For a more complete description of AFIP's missions, see app. II.)

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## Establishment of ARP

In the past, certain DOD officials were critical of AFIP's interactions with civilian medicine and AFIP's relationship with ARP. In 1975, for example, the Army Surgeon General suggested that the relationship of ARP—a civilian organization—and AFIP—a military organization—was inappropriate and directed that it be terminated. In the Department of Defense Appropriation Authorization Act, 1977, Congress specifically authorized ARP to be established as a nonprofit corporation and further authorized a cooperative relationship between AFIP and ARP. ARP is responsible for encouraging and facilitating collaborative work between AFIP and civilian medicine.

## Funding of AFIP and Its Relationship with ARP

To support its activities, AFIP draws upon several sources of funding. In fiscal year 2004, AFIP's funding totaled approximately \$100 million, the majority of which (approximately \$80 million) consists of funds from DOD's Defense Health Program appropriation. An additional \$13 million was from other appropriations for DOD activities, and approximately \$7 million was provided by other federal agencies as reimbursement for AFIP's services. In addition to these funds, which are provided directly to AFIP, ARP may collect fees and accept research grants in exchange for certain services provided for the civilian medical profession by AFIP. Funds from AFIP's research, education, and consultation services are collected by ARP and used to support AFIP's civilian mission. ARP acts as an intermediary between AFIP and the civilian medical community, performing a variety of tasks on behalf of AFIP. The costs incurred by ARP in support of AFIP's missions are recouped from AFIP's consultation, education, and research revenues, and the remainder of these funds is placed in "registries," or bank accounts, which are used to support AFIP in a variety of ways at the request of authorized AFIP officials. In 2004 ARP received \$5.7 million in revenues as payment for consultation and education services conducted by AFIP and \$5.6 million in research grants. Table 1 shows the funds collected by ARP since 2000.

**Table 1: ARP's Consultation Revenues, Education Revenues, and Research Grant Funding**

Funds collected	Year				
	2000	2001	2002	2003	2004
Consultation revenues	\$2,361,000	\$2,656,000	\$2,546,000	\$2,714,000	\$3,011,000 <sup>a</sup>
Education revenues	2,272,000	2,480,000	2,149,000	2,392,000	2,691,000
Research grants	1,049,000	2,551,000	3,166,000	4,495,000	5,564,000

Source: ARP.

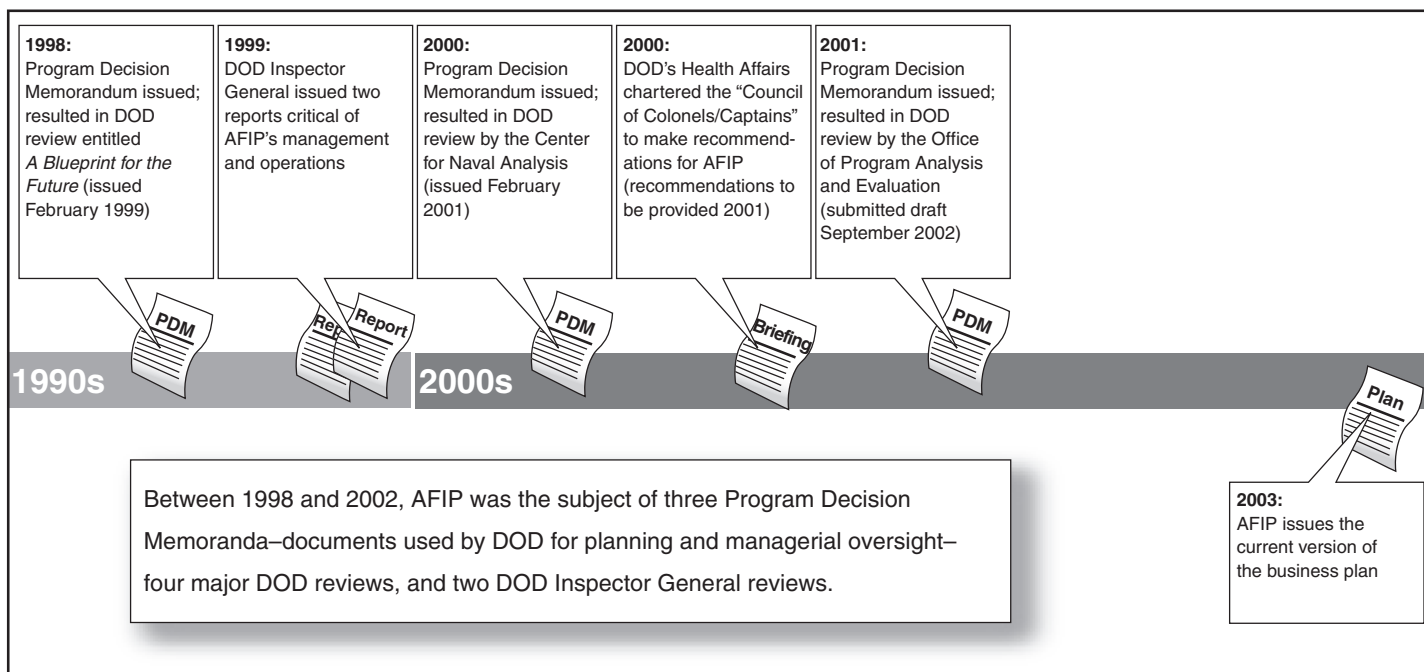
<sup>a</sup>Prior to October 2004, all consultation revenues were collected by ARP. After that time, consultation revenues were billed and collected by both AFIP and ARP, depending on when the consultation arrived at AFIP. Total consultation revenues reflect collections by both AFIP and ARP for October, November, and December 2004.

## Development of AFIP's Business Plan

AFIP developed its business plan in response to DOD's reviews of AFIP's mission and operations. DOD conducted these reviews after AFIP requested that DOD build a new facility for AFIP or repair AFIP's primary facility. From 1998 through 2002, AFIP was the subject of three Program Decision Memoranda (PDM)—documents used by DOD for planning and managerial oversight—four major DOD reviews and two DOD Inspector

General reviews. These reviews were critical of AFIP’s lack of internal controls and the amount of DOD funding supporting AFIP’s civilian mission.<sup>7</sup> In general, these reviews found that (1) AFIP’s civilian services exceeded its military services; (2) AFIP was not adequately reimbursed for its civilian services and needed to increase its fees; and (3) AFIP lacked appropriate internal controls over its operations, particularly its ability to monitor and track its consultation services and related finances. Figure 1 shows a timeline of these reviews.<sup>8</sup>

**Figure 1: DOD Reviews of AFIP Leading to the Development of AFIP’s Business Plan**



Source: GAO.

<sup>7</sup>An internal control is a component of an organization’s management. Internal controls are a series of actions and activities that occur on an ongoing basis which help managers achieve key outcomes and minimize operational problems. For more information on internal controls, see GAO, *Standards for Internal Controls in the Federal Government*, GAO/AIMD-00-21.3.1. (Washington, D.C.: November 1999).

<sup>8</sup>These reviews are listed in appendix I.

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DOD issued its third PDM regarding AFIP in 2001. It directed DOD's Office of Program Analysis and Evaluation (PAE) to study alternative funding arrangements for AFIP. AFIP began drafting its business plan in 2002 to respond to many of DOD's concerns. The business plan reflected changes to its operations that AFIP had made as early as 2000 in response to criticisms in the DOD reviews. The 2001 PDM resulted in a draft report, submitted by PAE to the Assistant Secretary of Defense for Health Affairs in 2002, which recommended the transfer of most AFIP functions to the Department of Health and Human Services. The draft report further recommended that if this were not possible, DOD should end its financial support for AFIP and transform it into a working capital fund, which, as the draft stated, would require congressional approval. This would require AFIP to generate enough revenues to independently finance its operations, through fees charged for its consultation, education, and research services.<sup>9</sup>

The Assistant Secretary of Defense for Health Affairs prepared a written response in 2003 describing his reasons for not instituting the recommendations of the draft report. He said that DOD should allow AFIP to pursue the business and organizational strategies set forth in the business plan that AFIP was developing. Although AFIP originally planned to implement the plan over a 6-year period beginning in October 2002, the Assistant Secretary told AFIP officials that they should complete the plan's initiatives by October 2004. He also recommended that AFIP transform its relationship with ARP, noting that it might be more efficient for AFIP to bill civilians directly for its consultation, education, and research activities, rather than relying on ARP to provide this service.

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## DOD Recommended That AFIP Be Closed

On May 13, 2005, the Secretary of Defense announced DOD's recommendations to close or realign military facilities in the United States. As a part of the BRAC process, DOD recommended the closure of AFIP.<sup>10</sup> DOD recommended that the medical examiners' functions and the DNA registry be moved to Dover Air Force Base, Dover, Delaware; some

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<sup>9</sup>The draft report recommended that the medical examiner function and the DNA registry continue to receive funding through DOD.

<sup>10</sup>This is a part of a larger initiative to close the Walter Reed installation in the District of Columbia and to build a new facility for specialty and subspecialty medical services in Bethesda, Maryland. This new facility will serve all of the military departments and will be named the Walter Reed National Military Medical Center.

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education services to Fort Sam Houston, Texas; and the museum to Walter Reed National Military Medical Center. Other services currently provided by AFIP would be discontinued, transferred to other parts of DOD, or contracted out to the civilian medical community. For example, second-opinion pathology consultations for military personnel and their families would be sent to civilian laboratories and paid for on an as-needed basis. The department's recommendations will now be reviewed by the BRAC Commission, which will seek comments from the potentially affected communities. Once the commission has completed its review, it will present its recommendations to the President and Congress. The process is expected to be completed by the end of 2005.

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## AFIP's Business Plan Has Four Key Initiatives and Intends to Achieve \$17.5 Million in Annual Financial Benefits

AFIP developed its business plan to improve its internal controls and reduce its need for DOD funding by cutting costs and increasing its revenues from civilian work. To do this, the business plan has four key initiatives, which AFIP estimated would save the institute \$17.5 million a year when fully implemented.

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### AFIP's Business Plan Has Four Key Initiatives

Under the four key initiatives of AFIP's business plan, the institute planned to (1) improve its business practices, (2) increase the amount of services it provides for the military, (3) reduce staff, and (4) consolidate its facilities.

#### AFIP Planned to Improve Its Business Practices

The business plan's first initiative called for AFIP to improve its business practices. AFIP's business practices were criticized in DOD reviews for lacking sufficient internal controls, particularly over consultation services and related finances. The initiative planned to address problems in AFIP's business practices. Prior to the development of the business plan, AFIP had few internal controls governing its services, and many DOD officials said that the fees that AFIP charged for its consultation services were too low.

The business plan stated that AFIP would develop internal controls to ensure that all consultations are properly billed and monitored by AFIP managers. AFIP would also raise its fees for civilian consultations. The plan stated that AFIP needed to increase the fees it charged for civilian consultations so that they would accurately reflect prevailing market rates. The plan also stated that AFIP managers needed to better monitor the

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delivery of consultation services through the expansion of an electronic system, which would be used to track individual consultation cases. Prior to the development of the business plan, AFIP had few internal controls for monitoring its consultation services. AFIP officials said that they had no way to determine if staff were inappropriately waiving fees for civilian customers or performing tests that were not needed to provide a diagnosis.

Next, the business plan stated that AFIP would develop internal controls to ensure that all consultations are performed in a timely manner. This is important because over 90 percent of the cases sent to AFIP are tumor cases, requiring quick diagnoses so that the patient's physician can determine the most appropriate course of treatment. In DOD reviews, AFIP was criticized for providing slow diagnoses, which the business plan calls slow "turnaround time." The plan defines turnaround time as the amount of time that elapses from the moment a consultation case arrives at the institute until the pathologist provides a diagnosis to the customer. In fiscal year 2003, AFIP's average turnaround time for a consultation case was 15 days. In order to reduce its turnaround time, AFIP established a new set of guidelines in the business plan for each of its departments and laboratories and planned to monitor whether staff were following these guidelines.<sup>11</sup> The guidelines established time frames for the completion of various tasks. For example, the guidelines state that a case should be delivered to a pathologist within 24 hours of its arrival at the institute and, depending on the complexity of the case, that most consultations should result in a diagnosis by the pathologist within 2 to 5 days of the case's arrival at the institute.

AFIP would also seek legislative authority to collect and retain fees directly from civilian clients for consultation, education, and research. The legislation formalizing AFIP's relationship with ARP authorized ARP to receive grants and fees and authorized ARP and AFIP to collaborate on medical research, consultation, and education with civilian medicine. In response to DOD's criticism of AFIP's financial relationship with ARP—specifically, ARP's lack of transparency and the costs of using ARP—AFIP planned to seek legislation to change their relationship. The plan stated that AFIP would increase the amount of revenues it collects and improve its internal controls if it were allowed to take this function over from ARP.

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<sup>11</sup>The business plan refers to these guidelines as Standard Operating Procedures or Practice Guidelines.



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Finally, AFIP would develop internal controls that would allow it to accurately determine the costs of providing services. DOD's reviews criticized AFIP because it was unable to identify the costs associated with providing specific procedures or types of services. These reviews suggested that AFIP institute an accounting system that would allow AFIP to track the costs associated with providing all of its services.<sup>12</sup> DOD officials concerned with overseeing AFIP also concluded that it would be difficult to end the DOD subsidy of civilian services if AFIP could not identify its costs.

#### AFIP Planned to Increase the Amount of Services Provided for the Military

Under the business plan's second initiative, AFIP planned to increase the amount of services it provides for the military and decrease the amount of services it provides for the civilian medical community. Under this initiative, AFIP would improve the marketing of its pathology services to military physicians by preparing promotional materials and presentations to make them aware of the services that AFIP can provide, decrease the amount of civilian research at AFIP that is funded by DOD, and increase the number of educational programs offered to the military. A major concern of DOD and AFIP officials had been that civilian use of AFIP's services significantly exceeded that of the military. According to the business plan, AFIP's budget and staff had steadily increased over the last several decades to meet the demands of its civilian workload.

#### AFIP Planned to Reduce Its Staff

According to AFIP's business plan, the institute's staffing levels had steadily increased in order to support its civilian workload; as a result, the plan's third initiative called for a reduction of staff from 820 to 685 positions. The plan stated that the staff reduction was to be completed by October 1, 2004. The business plan estimated that AFIP would be able to absorb these staff cuts because of increased efficiencies that would come from implementing other initiatives of the business plan. In addition, the plan predicted that these staff reductions would not reduce AFIP's productivity or inhibit the institute's ability to fulfill its mission requirements.

#### AFIP Planned to Consolidate Its Facilities

The fourth initiative in the business plan called for AFIP to consolidate its facilities from nine to five and the number of locations from seven to three. Prior to the development of the business plan, AFIP sought a solution to the deterioration of its primary facility at the Walter Reed

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<sup>12</sup>The business plan refers to this type of system as an "activity-based cost accounting system."

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campus by having DOD build a new facility. In 1998 DOD chose to fund the continuing renovation of AFIP's primary facility, and as of May 2005, AFIP's primary facility had undergone extensive renovation. AFIP officials said that the facility is still not adequate, but they have run out of funds to continue the renovation.

The business plan also stated that AFIP would seek to replace its primary facility on the Walter Reed campus through an alternative funding mechanism, called an "enhanced use lease." An enhanced use lease is a leasing agreement that allows a private company to build a building on government land which is then leased back to the government. This type of arrangement would not require DOD to fund the entire cost of construction. According to DOD officials, many government agencies—including DOD—have favored this type of arrangement in recent years because annual appropriations need not be used for the full cost of construction, but only the annual lease payments to the private developer. AFIP officials have said that, although the business plan mentioned that AFIP hoped to obtain an enhanced use lease, AFIP's building consolidation could occur independently from this process.

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### AFIP Estimated That It Would Save \$17.5 Million by Implementing Its Business Plan

The business plan projected that three of its four initiatives would save the institute \$17.5 million a year when fully implemented. Specifically, the business plan estimated that some of the planned changes to business practices would result in additional revenues of \$7.4 million annually, staff reductions would create cost savings of \$6.6 million annually, and consolidations of facilities would save about \$3.5 million annually. The initiative to increase the amount of services provided for the military was not intended to save money. AFIP projected that this combination of increased revenues and reduced costs would allow DOD to reduce its funding of AFIP by \$17.5 million a year. Table 2 summarizes the business plan's key initiatives and projected financial benefits.

**Table 2: Summary of Key Initiatives and Projected Financial Benefits in AFIP's Business Plan**

<b>Initiative</b>	<b>Description</b>
Initiative one: improve business practices	<ul style="list-style-type: none"> <li>• Develop internal controls to ensure that all consultations are properly billed, and increase the fees charged for civilian consultations.</li> <li>• Develop internal controls to ensure that all consultations are performed in a timely manner.</li> <li>• Seek legislative authority to directly collect and retain fees from civilian clients for consultation, education, and research services.</li> <li>• Develop internal controls to allow AFIP to determine the costs associated with its civilian work.</li> <li>• Initiative projected to result in \$7.4 million in increased revenues.</li> </ul>
Initiative two: increase the amount of services provided for the military	<ul style="list-style-type: none"> <li>• Improve marketing of AFIP services to military physicians.</li> <li>• Decrease the amount of civilian research that is funded by DOD.</li> <li>• Increase the amount of educational programs available to military attendees.</li> </ul>
Initiative three: staffing reductions	<ul style="list-style-type: none"> <li>• Reduce the number of staff from 820 to 685.</li> <li>• Have no reduction in AFIP productivity or adverse affect on mission.</li> <li>• Initiative projected to result in \$6.6 million annual savings.</li> </ul>
Initiative four: facilities consolidation	<ul style="list-style-type: none"> <li>• Consolidate locations from seven to three.</li> <li>• Consolidate AFIP facilities from nine to five.</li> <li>• Explore the option of an enhanced use lease.</li> <li>• Initiative projected to result in \$3.5 million annual savings.</li> </ul>

Source: GAO analysis of *The Transformation Plan of the Armed Forces Institute of Pathology*.

In 2004 DOD officials began to draft a Management Initiative Decision (MID), which would mandate cuts in AFIP's budget in anticipation of the financial benefits described in the business plan.<sup>13</sup> According to DOD officials, decreases in AFIP's funding are intended to be offset by the increased revenues and cost savings generated by the business plan. They said that the budget reductions to be included in the MID are similar to the financial benefits identified in AFIP's business plan. DOD officials told us that as of May 2005, the final MID was on hold. DOD officials said that AFIP's failure to achieve its projected financial benefits could result in a budget shortfall for AFIP.

<sup>13</sup>A MID is a decision document designed by DOD to institutionalize management reform decisions.

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## AFIP Has Improved Some Internal Controls; However, AFIP Is Unlikely to Achieve the Annual Financial Benefits Projected in the Business Plan

AFIP has implemented some of the changes called for under the first initiative of its business plan. This has resulted in improved internal controls, particularly over the delivery of AFIP's consultation services and related finances. However, AFIP has not made other improvements to internal controls that were identified in the business plan. In addition, AFIP is unlikely to achieve the annual financial benefits of \$17.5 million projected by the business plan. We found that the financial benefits from implementing the business plan are likely to be significantly less. We estimate that the financial benefits will be approximately \$5 million. This is largely because the plan's estimates were based on inaccurate and incomplete data.

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## AFIP Has Improved Some Internal Controls but Has Not Implemented Others

In implementing its business plan, AFIP improved internal controls, particularly over its consultation services and related finances. These improvements were described in the first initiative of the business plan, which called for AFIP to improve its business practices. As a result of these changes, AFIP has improved its ability to accurately monitor and bill its consultation cases. In addition, AFIP established new guidelines to help ensure that the diagnosis of a consultation case is provided in a timely manner. In contrast, AFIP has not developed other internal controls described in the business plan. For example, AFIP has not developed the ability to determine the costs associated with providing services for the civilian medical community.

## AFIP Developed Internal Controls to Ensure That All Consultations Are Properly Monitored and Billed

AFIP expanded the capabilities of its electronic-consultation-tracking system in early 2004 to improve the internal controls governing its consultation services. This system is called the Pathology Information Management System (PIMS). PIMS is an electronic database used by AFIP staff to acknowledge the receipt of a consultation case and track case materials as they move through the institute.<sup>14</sup> In addition to improving AFIP's ability to track its consultation cases, PIMS was expanded to improve AFIP's billing capability. AFIP officials said that all laboratory tests are now electronically ordered through this system and invoices are electronically generated based on the type of tests that were performed. According to AFIP officials, this electronic system represents a significant improvement over AFIP's prior method for creating consultation invoices where all invoices were created by hand. AFIP officials said the new system makes it impossible to waive a fee without additional scrutiny and

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<sup>14</sup>Case materials include such items as tissue samples, x-rays, and case histories.

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ensures that AFIP's customers are charged only for tests needed to make a diagnosis.

**AFIP Developed Internal Controls to Ensure That Consultations Are Performed in a Timely Manner**

In order to ensure that consultations are performed in a timely manner, AFIP implemented a strategy to reduce its turnaround time. In 2003 AFIP established a set of guidelines for each of its departments and laboratories. Also since early 2003, AFIP managers have used information from PIMS to track whether AFIP's pathologists and laboratories are complying with these guidelines. AFIP reduced its average turnaround time from 15 days in fiscal year 2003 to less than 5 days at the end of 2004.

**AFIP Began to Bill Civilian Clients for Consultations**

In October 2004, AFIP began billing civilian clients for consultation services. DOD did not pursue legislation to amend the financial relationship between AFIP and ARP, but DOD officials determined that AFIP could collect and retain fees for consultation services. It is too soon to measure the impact of this change, but AFIP officials said that by taking over this function, AFIP will increase the amount of revenues that it collects and improve internal controls. ARP continues to collect and retain fees for AFIP's educational services and manage research grants.

While AFIP has achieved control over the consultation revenues it collects, it has also lost much of the flexibility it once had in spending those revenues. The consultation revenues that had been collected by ARP were not subject to the restrictions placed on government funds, such as the need to spend all funds credited to an annual appropriation in the year for which the appropriation was made. In addition, AFIP officials said they had been able to spend the funds in ARP registries more quickly than they could have with other traditional government procurement methods. For example, when members of the Armed Forces Office of the Medical Examiner were sent to Iraq in support of Operation Iraqi Freedom, the staff were able to use ARP registry funds to quickly obtain body armor for the staff members. AFIP staff said that obtaining supplies through government procurement methods would have taken more time.

**AFIP Has Not Developed Internal Controls to Determine the Costs Associated with Civilian Services**

AFIP did not implement other internal controls called for in the business plan. Specifically, AFIP has not developed the ability to determine the costs associated with providing civilian services. Although AFIP did institute a system in 2004 to begin tracking the time that pathologists were engaged in broad categories of activity, such as education, research, and consultation, as of May 2005, the institute did not have more specific data, such as the time spent working on an individual consultation case. AFIP officials are still considering developing such a system, but have not done

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so. These data would be a necessary component of any system that monitors the costs of providing AFIP's services.

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### The Business Plan's Projected Financial Benefits Were Based upon Inaccurate and Incomplete Data

The business plan stated that changes to AFIP's business practices, facilities, and staff cuts will result in \$17.5 million in annual financial benefits in the form of increased revenues and lower costs. Because many of these projections were developed using inaccurate or incomplete data, we estimate that the financial benefits from implementing the business plan are likely to be significantly lower—approximately \$5 million annually.

### Increased Revenue from Improved Business Practices Will More Likely Be \$1 Million Instead of \$7.4 Million

AFIP's business plan projected that AFIP would increase its revenues from civilian consultations by \$7.4 million annually by increasing the fees charged to civilians for consultation services and improving the collection rate of those fees.<sup>15</sup> However, we found that AFIP will more likely increase its revenues by \$1 million annually, primarily as a result of its fee increase. AFIP raised fees for its civilian consultation services in January 2004 and assumed responsibility from ARP for the billing and collection of its consultation fees in October 2004.

AFIP based its projection of \$7.4 million upon a series of assumptions that are presented in the business plan. In late 2002, before increasing fees for civilian consultations and before assuming responsibility for the billing and collection of fees, AFIP collected a judgmental sample of 250 cases out of the approximately 23,600 civilian cases that AFIP completed in 2002. Using this sample of cases, AFIP developed a calculation to predict the amount of additional revenue that it would generate from raising fees and assuming the billing and collection function from ARP. (See app. III for a description of AFIP's analysis as presented in the business plan.)

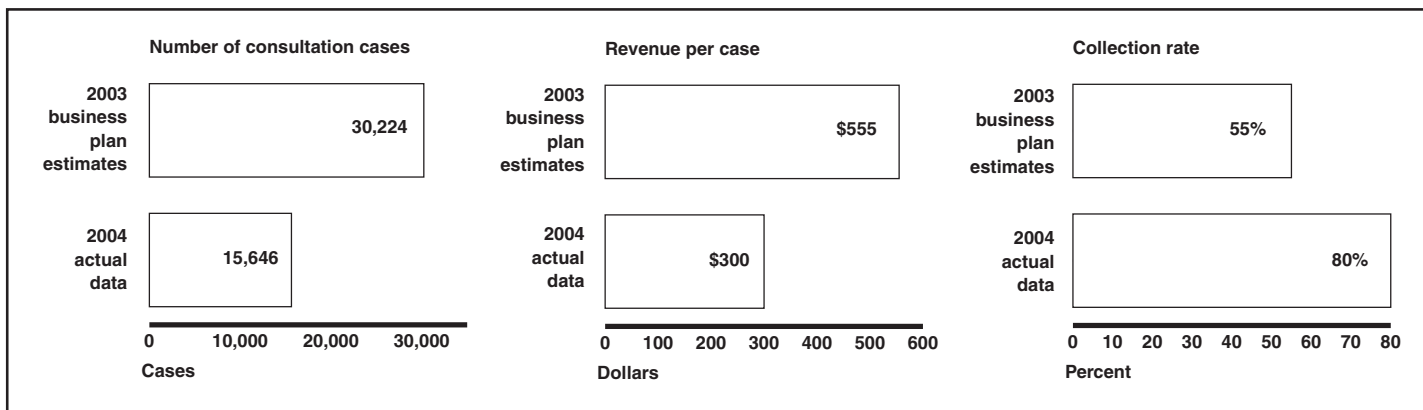
Although AFIP will probably increase its revenues as a result of raising fees, AFIP's projection overestimated the likely increase in revenues. Specifically, AFIP's analysis (1) overestimated the number of consultation cases that AFIP would receive, (2) overestimated the average revenue AFIP is likely to earn from each billable case and, (3) underestimated ARP's collection rate. We found that if actual 2004 data were used in AFIP's calculation, AFIP would achieve approximately \$1 million in increased revenues over the revenues collected by ARP in 2003. Figure 2

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<sup>15</sup> A collection rate is the ratio of revenues collected versus revenues billed.

shows the estimates presented in the business plan compared with actual 2004 data provided by AFIP.

**Figure 2: AFIP’s Business Plan Estimates and Actual 2004 Data for Civilian Consultations**



Source: GAO analysis of AFIP data.

**Financial Benefits from Staffing Reductions Will More Likely Be \$4 Million Instead of \$6.6 Million**

In its business plan, AFIP projected annual financial benefits of \$6.6 million as a result of implementing staff cuts; however, as of May 2005, AFIP stated that it planned to achieve \$4 million in annual savings from these cuts. The business plan also stated that AFIP planned to reduce its total staff from 820 to 685 by October 2004. However, AFIP officials said that at the time of the business plan’s development, they did not have an accurate count of the total number of staff working at AFIP. Officials stated that this was partially due to challenges resulting from a lack of central management over hiring, particularly with regard to contract staff hired through ARP.<sup>16</sup> Since implementing its business plan, AFIP officials said that they have improved their ability to track the number of staff working at the institute. AFIP and DOD officials have agreed on a savings target of \$4 million for reducing AFIP’s staff. AFIP has developed lists of positions to be cut, but as of May 2005 these staff cuts were on hold. AFIP has primarily relied on attrition to reduce its staff. Table 3 shows the

<sup>16</sup>ARP assists AFIP in hiring staff in two ways. ARP manages several DOD-funded personnel contracts which allow ARP to hire and pay for contractors to work at AFIP. In addition, AFIP department chairs can ask ARP to hire contract personnel with funds available in their registries. AFIP officials explained that it was staff from the second category, staff hired with funds from registries, that they had difficulty identifying at the time of the business plan’s development.

number of staff working at AFIP and the primary funding source for their positions.

**Table 3: Number of Staff Working at AFIP, 2000 to 2004**

Source of funding	Year				
	2000	2001	2002	2003	2004
Army	78	72	66	79	67
Navy	53	45	67	49	50
Air Force	49	53	51	50	53
VA	14	15	14	14	18
General Schedule/civilian employees	309	296	304	286	258
DOD-funded contractors	237	226	318	338	307
<b>Total DOD-funded staff</b>	<b>Not available</b>	<b>707</b>	<b>820</b>	<b>816</b>	<b>753</b>
Contractors paid with external, non-DOD funding (e.g., funded by research grants, ARP registry funds, etc.)	Included above	63	43 <sup>a</sup>	70	84
<b>Total staff</b>	<b>740</b>	<b>770</b>	<b>863</b>	<b>886</b>	<b>837</b>

Source: AFIP.

Note: AFIP officials said they are confident that they have identified all staff working at AFIP in 2004 regardless of their funding streams. They said they are less confident about staffing in prior years.

<sup>a</sup>At the time of the business plan's development in 2002, AFIP could not identify these 43 staff members working under ARP contract and paid for with non-DOD sources of funding. AFIP officials later identified these staff members but said that additional contractors who were not identified might have been working at AFIP at this time.

**AFIP Will Likely Achieve None of the \$3.5 Million Annual Financial Benefits Projected in the Business Plan from the Consolidation of Its Facilities**

Although AFIP's business plan projected an annual financial benefit of \$3.5 million as a result of consolidating facilities, as of May 2005, AFIP officials said they will not be making the facilities changes described in the business plan and will therefore not realize the \$3.5 million in annual financial benefits from facilities consolidation.

Since 2002 AFIP has sought to replace its primary facility on the Walter Reed campus through an alternative funding mechanism, called an "enhanced use lease." However, several major developments have hindered AFIP's ability to move forward with the lease and building consolidation. Communities from adjacent neighborhoods have been opposed to constructing a new building on the Walter Reed Campus, where AFIP hoped to have the new building located. In addition, AFIP has reevaluated its plans to consolidate all of its operations at its Walter Reed location because of concern about moving the Armed Forces Office of the Medical Examiner into Washington, D.C. AFIP officials have expressed

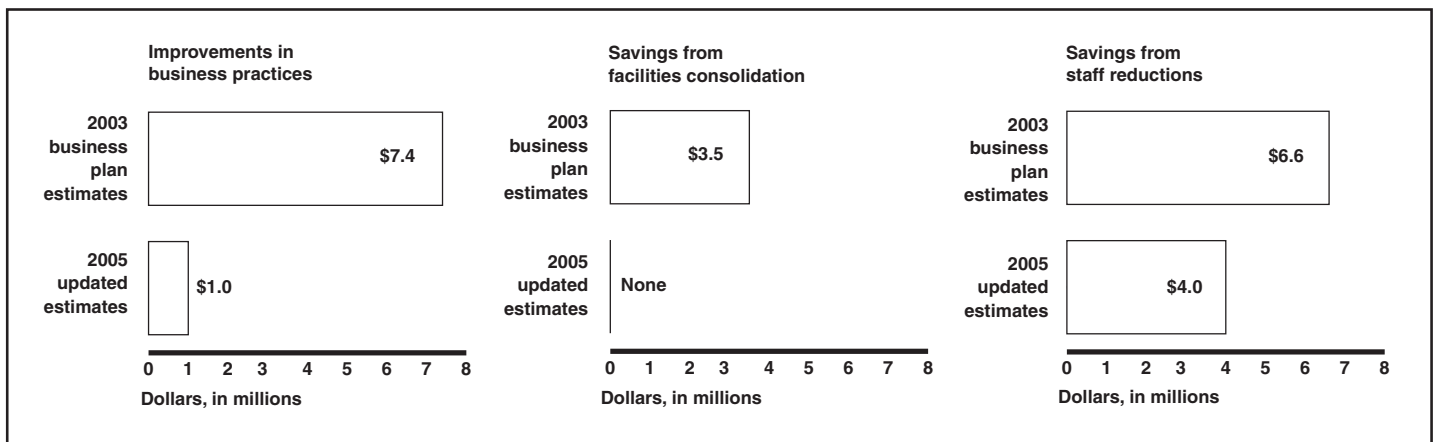


concern that being located within Washington, D.C., could hamper the medical examiner’s ability to respond to a crisis that affected the city.

In February 2005, AFIP’s Board of Governors decided to place all plans for facilities on hold while DOD reconsidered AFIP’s future mission.<sup>17</sup> All future decisions about AFIP’s primary facility and the consolidation of facilities will be impacted by DOD’s recommendation in May 2005 that AFIP be closed as a part of the BRAC process.

Figure 3 summarizes our findings regarding the annual financial benefits projected in the business plan.

**Figure 3: GAO’s Estimates of Likely Annual Financial Benefits from Implementing the Business Plan**



Source: GAO analysis of AFIP data.

<sup>17</sup>The Board of Governors meets quarterly and establishes guidelines and broad administrative and professional policies, consistent with the objectives of the institute. The members of the Board of Governors are the Assistant Secretary of Defense for Health Affairs; the Surgeons General of the Army, Navy, and Air Force; the U.S. Surgeon General; the Under Secretary for Health, Department of Veterans Affairs; and a former Director of AFIP.

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## Implementation of the Business Plan Has Increased Services for the Military and Decreased Services for Civilians

In implementing its business plan, AFIP increased the amount of services provided for the military and decreased the amount of services provided for civilians. Many pathologists we interviewed said that these trends will likely continue in the future. Over the last several years, AFIP has increased its military consultations and decreased its civilian consultations. In addition, AFIP has reduced its civilian research and the number of educational courses available to civilians. Staff reductions, as well as other recent changes called for in the business plan, have resulted in a loss of top pathologists. While AFIP has successfully increased the amount of services to the military, the pathologists and physicians we interviewed told us that the continued decline in civilian services has reduced—and will continue to reduce—AFIP’s overall level of expertise. In addition to these changes at AFIP, DOD recently recommended the closure of AFIP. If implemented, this would require that all services currently provided by AFIP be discontinued, transferred to other parts of DOD, or contracted out to the civilian medical community.

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## Military Consultations Have Increased While Civilian Consultations Have Decreased

The number of military consultations sent to AFIP has increased while the number of civilian consultations has decreased. From 2000 through 2004, military consultations at AFIP increased by 30 percent while civilian consultations decreased by 28 percent. Nearly all of the decrease in civilian consultations occurred in the 2 years after AFIP announced that it would raise its consultation fees beginning in January 2003.<sup>18</sup> The business plan called for AFIP to increase civilian fees in order to reduce DOD funds supporting civilian services. At the time of the plan’s development, AFIP officials anticipated a 20 percent drop in civilian consultations as a result of its increased fees.

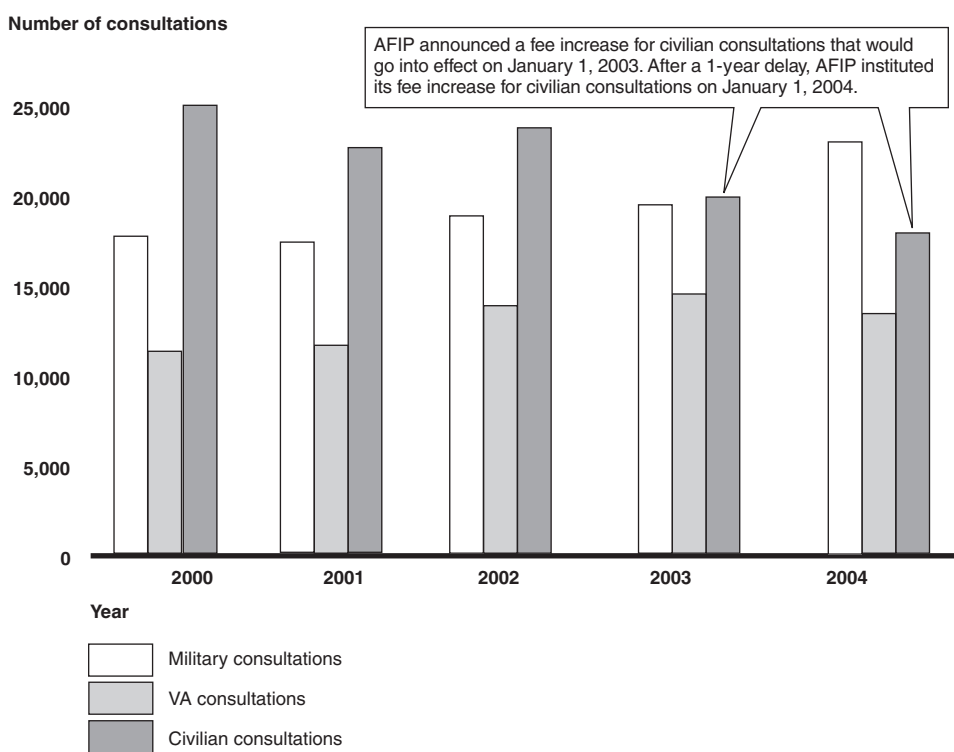
Other reasons commonly cited for the decrease in civilian consultations are not directly attributable to the business plan. AFIP and civilian pathologists have said that a more competitive marketplace for consultations, an overall decline in AFIP’s reputation, and AFIP’s slow turnaround time in providing diagnoses have also contributed to the decline. These pathologists also cited the loss of nationally recognized

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<sup>18</sup>AFIP published an announcement of the fee increase in its newsletter dated December 2002, and AFIP sent a letter announcing the increase to all of its civilian customers. These announcements stated that AFIP would increase its fees on January 1, 2003. AFIP did not raise its fees until a year later because of delays in developing the necessary accounting infrastructure to support the fee increases. However, AFIP’s civilian clients were not notified of this delay.

experts at AFIP as another possible reason for the decline in the number of civilian consultations being sent to AFIP. The expertise of AFIP's pathologists is one reason that many civilian customers send consultations to AFIP. Figure 4 shows trends in consultations since 2000.

**Figure 4: AFIP Consultations by Type of Consultation, 2000 to 2004**



Source: AFIP.

Note: AFIP performs consultations for VA in exchange for VA staff that work at AFIP. AFIP does not charge VA fees for consultations.

## The Amount of Civilian Research at AFIP Has Declined

The business plan called for AFIP to decrease the amount of DOD-funded research that is not directly relevant to military operations. AFIP officials said that it could continue to do civilian research if AFIP pathologists were able to increase the amount of funding from outside agencies or foundations, such as the National Institutes of Health. AFIP shifted its DOD-funded research toward subjects that were of direct interest to the military and encouraged pathologists that wished to do civilian research to seek research grants from external sources. Although "militarily relevant" research has not been well-defined, AFIP staff said it generally includes

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subjects of direct interest to the military, such as research on military body armor or bioterrorism.<sup>19</sup> AFIP staff said that they began to focus on increasing militarily relevant research and reducing DOD-funded civilian research as early as 2001. AFIP developed additional strategies to reduce DOD-funded civilian research in its business plan, which was issued in 2003.

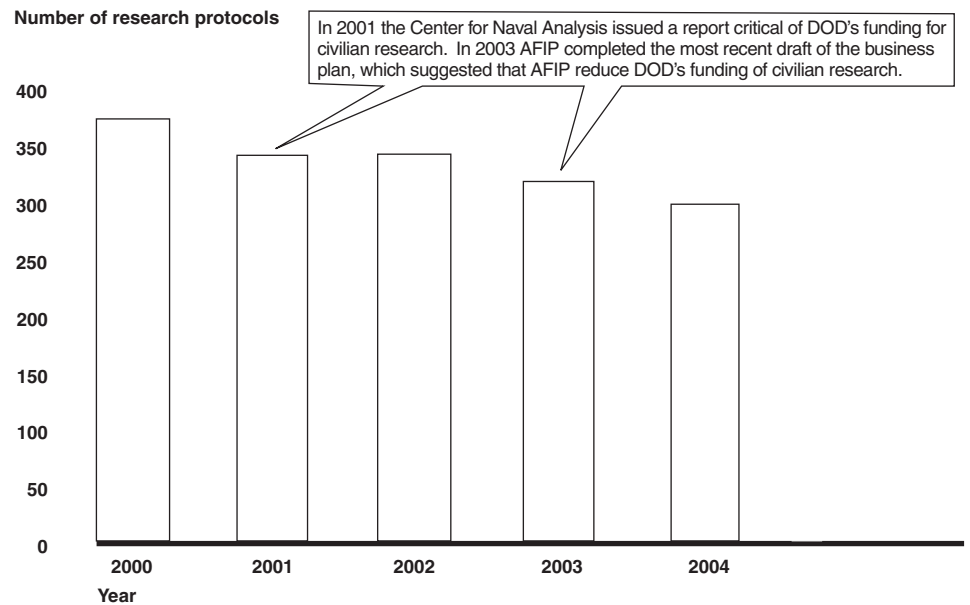
From 2000 through 2004, the number of research protocols at AFIP declined from 371 to 296. A research protocol is a detailed proposal, approved by AFIP's research committee, that describes the research that will be completed. The decline in AFIP's research protocols has particularly affected one type of civilian research—clinical-pathological correlations—traditionally performed by AFIP researchers. In this type of study, AFIP pathologists generally use the institute's repository of disease specimens to describe the correlations that exist between the clinical symptoms or attributes exhibited by a patient and the pathological abnormalities of a specific disease or type of tumor. The results of these studies are typically published by AFIP on its Web site, in books called "fascicles," or in other scientific journals. Although clinical-pathological correlations have helped to build the reputation of AFIP, many AFIP pathologists we interviewed said this type of research will likely decline at the institute in the future. Several department chairs commented that correlations are effective marketing tools that contribute to AFIP's reputation. Of the 17 department chairs who responded to this question, 14 suggested that the reduction of DOD-funded civilian research would negatively affect the institute.<sup>20</sup> Figure 5 shows the number of active research protocols from 2000 through 2004.

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<sup>19</sup>Although this is generally the way DOD and AFIP officials have discussed "militarily relevant" research within the context of the business plan, some AFIP officials believe that if the research is relevant to medicine, it is relevant to military medicine because military men and women and their families ultimately benefit from this research.

<sup>20</sup>We surveyed or conducted interviews with 20 AFIP department chairs; however, 3 chairs did not respond to this question.

**Figure 5: AFIP Research Protocols, 2000 to 2004**



Source: AFIP.

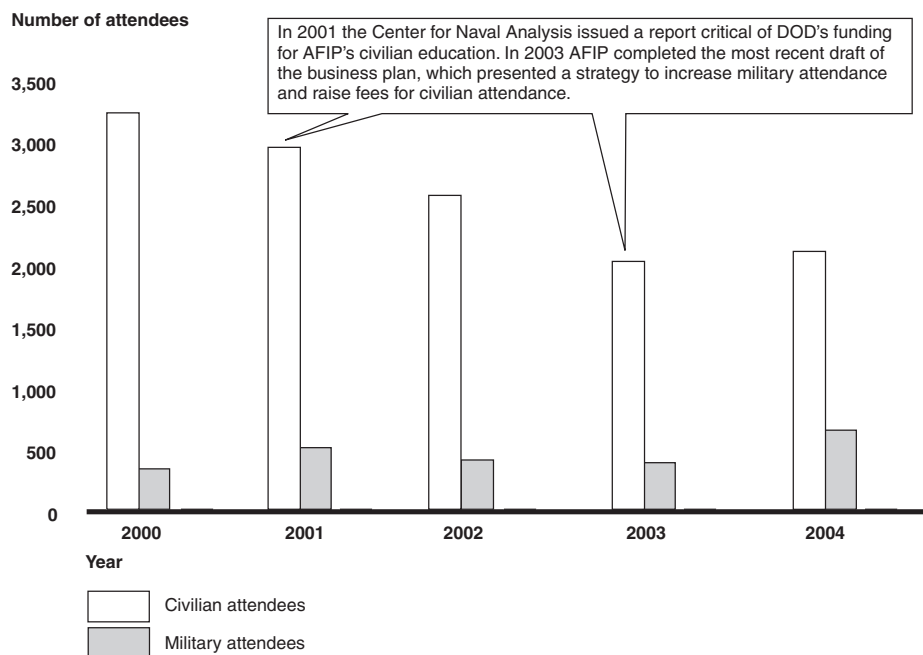
### The Number of Military Attendees at AFIP's Educational Courses Increased While the Number of Civilian Attendees Decreased

From 2000 through 2004, the number of military attendees at AFIP's educational courses increased while the number of civilian attendees decreased. AFIP officials said that they began making changes to their educational programs in 2001 in response to DOD's criticism of the amount of services that AFIP provided for civilians and the low fees charged to civilian attendees.<sup>21</sup> Since 2001, fees for civilian courses were raised and AFIP has begun to offer more educational courses that attract military attendees. Furthermore, the business plan established criteria to determine if an educational course at AFIP should be continued. AFIP officials said that they generally will eliminate courses if fewer than 25 percent of the attendees are in the military or if revenues do not exceed costs by at least 33 percent. Over the last several years, AFIP has used new technology to offer additional courses for military physicians. For example, in 2004, AFIP used video teleconferencing to teach 24 courses to physicians at 35 military sites. In addition, AFIP has used Web-based technology to allow its educational services to reach more physicians and

<sup>21</sup>Center for Naval Analyses, *An Analysis of Organizational and Funding Alternatives for the Armed Force Institute of Pathology* (Alexandria, Va.: February 2001).

researchers. At the same time that AFIP increased its course offerings for the military, it decreased the number of courses available to civilian attendees. In 2000 AFIP offered 41 courses that were open to civilian participants, whereas in 2004 AFIP offered 29 educational courses that were open to civilians. Figure 6 shows the number of military and civilian attendees at AFIP educational courses from 2000 to 2004.

**Figure 6: Military and Civilian Attendees at AFIP Educational Courses, 2000 to 2004**



Source: AFIP.

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## Pathologists and Physicians Said That AFIP's Civilian Mission Is Essential for Maintaining AFIP's Overall Level of Expertise

AFIP pathologists and civilian physicians said that AFIP's civilian mission is essential for maintaining the institute's expertise and that AFIP's civilian services are likely to continue to decline as a result of implementing the business plan. DOD and AFIP officials have stated that they want to preserve AFIP's civilian work but do not want to fund it with increasingly scarce DOD funds. AFIP staff told us that consultations from civilian patients are critical for maintaining the diagnostic expertise of AFIP's professional staff primarily because rare and unusual disease specimens are not commonly found in relatively young, active-duty military personnel. AFIP pathologists have also provided research and education services for the civilian medical community, which allows AFIP to maintain its professional medical contacts and utilize the institute's repository of disease specimens. AFIP pathologists told us that civilian pathologists with nationally recognized reputations have come to work at AFIP because of its international reputation, the type of cases that AFIP receives, and its repository of disease specimens. AFIP pathologists also said that the medical expertise gained from their interaction with civilian medicine benefits the military through the consultations they provide for military servicemembers and their families and their education and research services, which cover a variety of topics that are useful to DOD.

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## Staff Reductions and Recent Changes at AFIP Have Resulted in the Loss of Top Pathologists

Staff reductions called for by the business plan, as well as other recent changes at AFIP, have resulted in a loss of top pathologists, diminishing the institute's overall level of expertise.<sup>22</sup> Between 2000 and 2004, the total number of pathologists at AFIP—as well as the number of AFIP's most senior physicians and researchers—declined. Although some of the losses of top pathologists were due to reasons not associated with the business plan, such as deaths and retirements, AFIP does not intend to replace those losses because of impending staff reductions called for in the business plan. The total number of pathologists and scientists at AFIP has declined from 133 in 2000 to 96 in 2004, and AFIP's top pathologists and scientists—its Distinguished Scientists and Senior Executive Service employees—have declined from 19 in 2000 to 9 in 2004. Most of AFIP's Distinguished Scientists and Senior Executive Service employees are department chairs and have international reputations in the field of pathology. According to representatives from the College of American

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<sup>22</sup>The majority of AFIP's staffing cuts have not yet occurred. In anticipation of AFIP's need to save \$4 million annually in personnel costs, AFIP is not refilling many of its vacant positions. In addition, in a move unrelated to the business plan, AFIP eliminated 55 positions in 2003 to address that fiscal year's budget shortfall.

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Pathologists, AFIP has historically had prestigious and well-respected experts in the field of pathology. They told us that there appears to be less of an emphasis on this level of expertise at AFIP in recent years.

Half of the 20 department chairs we interviewed said that the business plan would negatively affect AFIP's ability to attract top pathologists in the future and a quarter said they are less likely to remain at AFIP because of changes called for by the business plan. The department chairs' most commonly cited complaint with the business plan was that pathologists must spend most of their time doing consultations rather than pursuing research or educational activities. The College of American Pathologists said that AFIP's loss of top pathologists is likely to hurt its ability to attract civilian consultations in the future.

AFIP officials responsible for implementing the business plan said that AFIP continues to be staffed by top-level pathologists and that top pathologists and civilian consultations will continue to be attracted to AFIP by the reputation of the institute rather than the reputation of individual pathologists and scientists.

Although the loss of some top pathologists can be directly attributed to the business plan, other changes in civilian and military medicine have also affected the level of expertise at AFIP. Throughout the early part of the 20th century, AFIP was the only institution in the country that maintained expertise in every major area of anatomical pathology. With a repository of millions of disease specimens and recognized expertise in numerous subspecialties of pathology, AFIP drew large numbers of consultations, research grants, and trainees on the basis of the institute's unique reputation. According to AFIP's Scientific Advisory Board, many changes in modern medical practice over the last several decades have altered the environment in which AFIP operates. For example, AFIP must now compete with 126 medical schools, many of which have in-house experts, as well as competitors, such as the Mayo Clinic, that have expertise in numerous subspecialties of pathology.

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## Conclusions

AFIP developed a business plan to improve internal controls and reduce AFIP's need for DOD funding by making its civilian work pay for itself. In implementing the business plan, AFIP instituted some of the internal controls described in the plan but has not instituted others. AFIP has also instituted business practices designed to make its civilian consultation, education, and research activities less dependent on DOD funding. These



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business practices appear to have had the effect of decreasing AFIP's civilian work in each of those areas.

We estimate that AFIP's financial benefits, in the form of increases in AFIP's revenues and reductions in AFIP's costs, are likely to be significantly less than projected by the business plan. We found that this is the case because the assumptions that AFIP used in its analysis were inaccurate and because events that AFIP projected would result in savings, such as staff cuts and facilities consolidation, did not occur.

Although DOD recently recommended the closure of AFIP as a part of the Base Realignment and Closure process, the process has not been completed. Until the process is completed, AFIP's inability to achieve its projected financial benefits could result in a budget shortfall because DOD officials said they intend to reduce AFIP's funding by the amount of the financial benefits projected in the business plan.

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## Recommendation for Executive Action

In order to better manage changes being instituted at AFIP, we recommend that the Assistant Secretary of Defense for Health Affairs reevaluate the financial benefits projected in AFIP's business plan so that DOD will have a more reliable estimate of AFIP's revenues and expenses.

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## Agency Comments

We requested comments on a draft of this report from DOD. DOD provided written comments that are reprinted in appendix IV. In its comments, DOD concurred with the report's findings and recommendation, noting that DOD continues to monitor the implementation of AFIP's business plan and the impact of the BRAC process on AFIP. DOD also said that the U.S. Army Audit Agency will begin an audit of AFIP business practices to determine if the institute is operating effectively and efficiently, and possesses the tools to accurately articulate costs, accomplishments, and contributions to the military mission. We also received technical comments from ARP on selected sections of this report, which we incorporated as appropriate.

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We are sending copies of this report to the Secretary of Defense, appropriate congressional committees, and other interested parties. Copies will also be made available to others upon request. In addition, this report is available at no charge on GAO's Web site at <http://www.gao.gov>. If you or your staff have any questions regarding this report, please call me on (202) 512-7101 or Martin Gahart on (202) 512-3596. Tom Conahan,

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Krister Friday, and Meridith Walters also made key contributions to this report.

A handwritten signature in black ink that reads "Marcia Crosse". The signature is written in a cursive style with a long horizontal line extending to the right.

Marcia Crosse  
Director, Health Care

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# Appendix I: Objectives, Scope, and Methodology

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The Senate Committee on Armed Services, in a report accompanying the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, directed that we conduct a study of the Armed Forces Institute of Pathology's (AFIP) business plan.<sup>1</sup> In this report, we (1) describe the business plan's key initiatives and projected financial benefits, (2) evaluate the business plan's potential to improve AFIP's internal controls and achieve its projected financial benefits, and (3) assess the likely impact of the business plan on the role of AFIP in military and civilian medicine. We performed our work from August 2004 through June 2005 in accordance with generally accepted government auditing standards.

To describe the business plan's key initiatives and projected financial benefits, we reviewed the business plan—called the *The Transformation Plan of the Armed Forces Institute of Pathology*—as well as numerous Department of Defense (DOD) studies of AFIP that contributed to its development. These studies included

- a 1999 DOD review entitled *A Blueprint for the Future*;
- two 1999 DOD Inspector General reports, the first reviewing AFIP's administration and management, and the second reviewing AFIP's controls over case-related materials;<sup>2</sup>
- a 2001 study by the Center for Naval Analysis evaluating AFIP's business practices and analyzing a range of alternative funding structures for AFIP;<sup>3</sup>
- a 2000 Report to Congress on AFIP's facilities issues;
- slides from a 2001 Council of Colonels/Captains study of AFIP's funding arrangements, business practices, and oversight by DOD, chartered by DOD's Office of the Secretary of Defense for Health Affairs; and
- a 2001 draft report from DOD's Office of Program Analysis and Evaluation, studying alternative funding arrangements for AFIP.

We evaluated a written copy of the business plan, dated October 2003, that was described by AFIP officials as the most current draft. AFIP officials said that there is no “final” version of the plan because it is an evolving

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<sup>1</sup>S. Rep. No. 108-260, at 349 (2004).

<sup>2</sup>DOD, Office of the Inspector General, *Administration and Management of the Armed Forces Institute of Pathology: Report No. 00-010* (Arlington, Va.: October 1999), and DOD, Office of the Inspector General, *Controls Over Case-Related Material at the Armed Forces Institute of Pathology: Report No. 99-119* (Arlington, Va.: April 1999).

<sup>3</sup>Center for Naval Analyses, *An Analysis of Organizational and Funding Alternatives for the Armed Force Institute of Pathology* (Alexandria, Va.: February 2001).

document. While some of the changes described in the business plan occurred as early as 2000, others occurred after that or had not been implemented at the time of our work. In evaluating the effects of the business plan for this report, we generally provide data from 2000 to 2004. We interviewed officials from AFIP; the American Registry of Pathology (ARP); the Office of the Surgeon General of the Army; the Office of the Under Secretary of Defense, Comptroller; and the Office of Assistant Secretary of Defense for Health Affairs.

To evaluate the business plan's potential to improve AFIP's internal controls and achieve its projected financial benefits, we interviewed AFIP and ARP officials and reviewed the assumptions and analyses that led to specific elements of the business plan. In some cases, we were able to compare the plan's projected financial benefits with information collected after specific changes had been implemented. In other cases, we evaluated the assumptions upon which specific analyses were based, by comparing the assumptions with data collected in 2004.

We evaluated the analysis presented in the business plan, which predicted AFIP's future revenues from taking over the billing and collection activities for civilian consultations from ARP. AFIP based its analysis upon three primary assumptions: (1) an assumption of the average invoice per case under the new fee schedule, (2) an assumption of future civilian consultations, and (3) an assumption of ARP's collection rate compared with that of AFIP. We compared the assumptions—which were based on data from 2002—with actual data from 2004 to evaluate their accuracy in predicting AFIP's future civilian consultation revenues. In addition, we asked AFIP to provide updates on other projections presented in the business plan. We present these updated numbers and compare them with the financial benefits projected in the business plan.

We observed a demonstration of AFIP's Pathology Information Management System (PIMS) as an example of the improvements made in establishing internal controls and improving data management. AFIP staff demonstrated the types of data that could be retrieved using the system and provided us with both hard copy and automated examples of the system's output. However, we did not test the data in PIMS to verify their accuracy.

AFIP provided us with data on pending and completed staff cuts, as well as information about staffing levels and their funding sources over the last 4 years. AFIP officials explained how they developed lists of positions to be cut as part of the business plan's staff reductions. We also interviewed

AFIP officials responsible for developing and implementing the business plan and 20 of AFIP's 22 department chairs to understand the effects of the business plan on the major areas of AFIP's operations.<sup>4</sup>

To assess the likely impact of the business plan on the services that AFIP provides for military and civilian medicine, we interviewed the AFIP staff described above, representatives from the College of American Pathologists, and members of AFIP's Scientific Advisory Board. We also reviewed data on AFIP's consultation, research, and educational efforts to see how they have changed since the development and implementation of the business plan.

We interviewed AFIP and ARP staff to determine how data were collected and maintained, but we did not independently verify the accuracy of the data. The reliability of the data has been the subject of critical findings in DOD reviews of AFIP. AFIP officials demonstrated the systems they use to maintain data and described their efforts to ensure their accuracy. In some cases, AFIP provided us with data that differed from data published in earlier reports and occasionally provided us with updated data during the course of this review that differed from data that it had provided us earlier. AFIP officials explained that this was due to ongoing efforts on their part to improve the quality of their data. We determined that the AFIP data used in this report were adequate for our use.

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<sup>4</sup>In December 2004, AFIP officials provided us with a current list of all AFIP department chairs. Since that time, some departments have been eliminated or experienced personnel changes.

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# Appendix II: The Armed Forces Institute of Pathology's Missions

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The Armed Forces Institute of Pathology's (AFIP) core mission is to provide consultation, research, and educational services for the civilian and military medical communities. In addition to this core mission, AFIP has a variety of other missions mandated by Congress and the Department of Defense (DOD). The DOD directive describing AFIP's missions lists the specific responsibilities and functions for which AFIP is responsible.<sup>1</sup> It states that the Director, AFIP, as a national and international expert on human and veterinary pathology, supporting both military and civilian medicine, is responsible for

- reviewing the diagnosis of pathology tissue for the Armed Forces;
- conducting diagnostic and consultation services for military and civilian medicine using histopathology, electron microscopy, immunohistochemistry, and molecular biological tools with leverage of the latest technology to ensure innovative pathology;
- conducting experimental, statistical, and morphological research and investigations to expand pathology and medicine beyond current levels of knowledge in support of DOD planning, initiatives, and operations;
- administering an effective Armed Forces Medical Examiner system;
- contracting with the American Registry of Pathology for cooperative efforts between the AFIP and the civilian medical profession;
- maintaining the Armed Forces repository of specimen samples for the identification of human remains and storing reference samples suitable for deoxyribonucleic acid (DNA) analysis for identifying human remains while assuring the protection of privacy;
- supporting DOD medical quality assurance programs and risk management with the Department of Legal Medicine;
- administering the Military Health System Patient Safety Center;
- staffing the Center for Clinical Laboratory Medicine and providing oversight for compliance with the Clinical Laboratory Improvement Amendments of 1988;
- serving as the DOD veterinary pathology resource expert, providing consultation, education, and research in pathology and laboratory animal medicine;
- maintaining medical illustration services for important illustrative material, except original motion picture footage;
- maintaining, facilitating, expanding, and improving the advancement of the activities of the National Museum of Health and Medicine pertinent to collecting, preserving, interpreting, and financial reporting on the national collection of medical artifacts, pathological and skeletal specimens,

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<sup>1</sup>DOD Directive 5154.24, October 3, 2001.

research collections and archival resources, and applicable materials from other federal medical sources and developing, presenting, and promoting public programs and exhibitions and participating in informational activities that improve the understanding and awareness of military medical history, medical science, disease prevention, and health education;

- maintaining a mechanism to access and track all case records and materials given to AFIP for consultation into a permanent, unified repository system, and central database;
- managing and directing the DOD Automated Tumor Registry and related activities, and overseeing access to the registry or a treatment facility's database, consistent with a research protocol approved through the institutional review board affiliated with the facility maintaining or giving oversight of the records or database;
- providing, on a reimbursable basis, education and training programs in pathology and other related areas of medicine for military and civilian participants throughout the United States and foreign countries;
- maintaining a medically current collection of study materials, which may be made available to military and civilian medicine;
- coordinating and enhancing genetic services in operational and clinical medicine through AFIP's Center for Medical and Molecular Genetics;
- providing clinical and investigative studies in experimental pathology with a focus on military relevancy and the protection of public safety;
- developing collaborative research protocols to assess current technologies and their innovative applications, which bring together government, academia, and private industry; and
- performing other duties as assigned by the Assistant Secretary of Defense for Health Affairs.

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# Appendix III: Analysis of the Armed Forces Institute of Pathology's Consultation Revenue Projections

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In its business plan, the Armed Forces Institute of Pathology (AFIP) projected that it would increase its revenues from civilian consultations by \$7.4 million annually as a result of increasing the fees it charges to civilians for consultation services and improving the collection rate of those fees. The business plan contains an analysis of how AFIP developed this projection. AFIP's analysis was based upon three primary assumptions about its future operations. It included (1) an assumption of the American Registry of Pathology's (ARP) collection rate, (2) an assumption of the number of civilian consultations that AFIP expected to receive in the future, and (3) an assumption of the average revenue per invoice under the new fee schedule. Based on 2004 performance data, we found that the values that AFIP assumed for each of these were inaccurate. Thus, the business plan's estimate of financial benefits from changes to its business practices significantly overstated the actual benefits.

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## AFIP Developed a Judgmental Sample from 2002 Civilian Consultations

To develop its assumptions, AFIP officials collected data from a judgmental sample of 250 consultation cases out of the approximately 23,600 civilian consultation cases that AFIP completed in 2002. AFIP officials said that they selected the sample of cases in such a way as to reflect the general distribution of consultations among AFIP's departments. AFIP officials said they determined the total amount of revenues that were invoiced, collected, and written off by ARP for each of the 250 cases.<sup>1</sup> AFIP officials then determined what they would have invoiced for these same 250 cases under their new schedule.<sup>2</sup> Table 4 provides the information that AFIP compiled for these 250 cases.

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<sup>1</sup>For a variety of reasons, some consultation cases were written off, or not charged to the client. In some cases, it was AFIP's policy not to charge certain types of clients. For example, AFIP did not charge clients from developing nations. In other cases, AFIP department chairs could write off consultation fees in instances where they had asked fellow physicians to send them rare cases for research purposes. However, these cases were still counted as consultation cases in AFIP's data.

<sup>2</sup>AFIP officials conducted this analysis in 2002, before they instituted the new fee schedule. However, they had already developed the fee schedule, and, therefore knew what the fees would be.



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**Table 4: AFIP's Analysis of 250 Sample Cases from 2002**

<b>Department</b>	<b>Invoiced</b>	<b>Collected</b>	<b>Written-off</b>	<b>Uncollected</b>	<b>New invoice if billed under new fee schedule</b>	<b>Total number of cases in sample</b>
Armed Forces Medical Examiner	\$425	\$0	\$425	\$0	\$171	<b>1</b>
Department of Cardiovascular Pathology	1,220	600	150	470	3,433	<b>7</b>
Department of Cellular Pathology	990	240	600	150	2,555	<b>5</b>
Department of Dermatopathology	5,015	2,880	550	1,585	11,475	<b>27</b>
Department of Head and Neck Pathology	3,320	1,940	360	1,020	7,093	<b>19</b>
Department of Environmental and Toxicology Pathology	450	0	0	450	684	<b>3</b>
Department of Genitourinary Pathology	4,120	2,770	420	930	5,620	<b>26</b>
Department of Gynecology and Breast Pathology	6,435	4,845	270	1,320	14,242	<b>27</b>
Department of Hematopathology	2,350	1,000	975	375	14,187	<b>8</b>
Department of Hepatic and Gastroenterology Pathology	6,515	2,655	540	3,320	31,221	<b>30</b>
Department of Infectious and Parasitic Disease Pathology	1,645	1,125	0	520	6,122	<b>8</b>
Department of Neurological and Ophthalmic Pathology	5,330	2,620	1,460	1,250	14,442	<b>18</b>
Department of Oral and Maxillofacial Pathology	1,830	1,340	0	490	3,445	<b>10</b>
Department of Orthopedic Pathology	1,690	970	420	300	2,978	<b>10</b>
Department of Pulmonary and Mediastinal Pathology	3,910	2,640	0	1,270	5,728	<b>15</b>
Department of Radiological Pathology	0	0	0	0	342	<b>2</b>
Department of Soft Tissue Pathology	4,775	1,950	1,875	950	10,852	<b>16</b>
Department of Forensic Toxicology	120	0	0	120	513	<b>3</b>
Department of Telemedicine	275	0	200	75	1,456	<b>2</b>
Department of Veterinary Pathology	0	0	0	0	1,882	<b>11</b>
DOD DNA Registry	360	360	0	0	342	<b>2</b>
<b>Total</b>	<b>\$50,775</b>	<b>\$27,935</b>	<b>\$8,245</b>	<b>\$14,595</b>	<b>\$138,785</b>	<b>250</b>

Source: AFIP.

Notes: DNA = deoxyribonucleic acid. DOD = Department of Defense.

## AFIP's Analysis Included Three Primary Assumptions

AFIP used the information in table 4 to develop two of its three primary assumptions. First, AFIP officials used the data collected for these 250 cases to determine that ARP had achieved a collection rate of 55 percent for those cases. AFIP assumed that by taking over the billing and

collection function from ARP, it would be able to achieve a collection rate of at least 80 percent.

Second, AFIP determined what the average revenue per case would be if each of the 250 cases from the sample was invoiced under its new fee schedule. AFIP estimated that it would bill \$138,785 if the 250 cases were invoiced under the new fee schedule. AFIP divided \$138,785 by 250, which resulted in an average invoice of \$555 per case. AFIP assumed that under the new schedule, \$555 would be the average revenue per invoice for all of its civilian consultation cases.

AFIP's third assumption, that it would receive 30,224 civilian consultations cases annually, was not derived from table 4. The business plan stated that this was the amount of civilian consultation cases that AFIP received in 2002. Total revenues would be calculated from this baseline estimate of consultation cases. AFIP assumed that the increase in fees would result in a 20 percent reduction in total consultation revenues.

After developing these assumptions, AFIP officials developed a calculation to predict the institute's future revenues by multiplying the number of civilian consultation cases by the average invoice per case. Next, they estimated that there would be some reductions in revenues. They estimated that the implementation of new practice guidelines governing how consultation cases are handled within the institute would result in a 10 percent reduction in revenues and that higher fees would result in an additional 20 percent reduction in revenues.<sup>3</sup>

From their calculation, AFIP officials estimated that they would generate a total of approximately \$9.6 million in annual revenues in future years. AFIP reported that ARP collected approximately \$2.2 million in consultation revenues in 2002. By subtracting ARP's 2002 revenues from AFIP's estimated revenues, AFIP projected that it would generate \$7.4 million in additional annual revenues. Table 5 shows how AFIP performed these calculations.

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<sup>3</sup>As a part of AFIP's practice guidelines, AFIP established policies that were designed to ensure that only the minimum number of tests needed to provide a diagnosis was performed. AFIP officials assumed that this would lower the total number of procedures performed per consultation case, thereby affecting anticipated revenues.

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**Table 5: AFIP's Projection as Presented in the Business Plan**

Calculation	Inputs	Total
Step 1: AFIP identified 30,224 civilian consultation cases in 2002	30,224	
Step 2: AFIP multiplied the number of cases by the estimated average invoice that would be generated by each case	30,224 x \$555.14	<b>\$16,778,000</b>
Step 3: AFIP assumed that it would be able to collect 80 percent of total invoices billed	80 percent of \$16,778,000	<b>13,423,000</b>
Step 4: AFIP projected a 10 percent reduction in revenues due to the implementation of its new practice guidelines	10 percent reduction of \$13,423,000 (\$13,423,000 minus \$1,342,000)	<b>12,081,000</b>
Step 5: AFIP projected a 20 percent reduction in revenues due to the implementation of its new fee schedule	20 percent reduction of \$12,081,000 (\$12,081,000 minus \$2,416,000)	<b>9,600,000</b>
<b>Estimate of the total amount collected by AFIP after taking over billing and collection from ARP and increasing fees:</b>		<b>9,600,000</b>
Step 6: AFIP estimated that ARP collected \$2.2 million in consultation revenues in 2002		<b>2,200,000</b>
Step 7: AFIP compared its estimated collections with those of ARP in 2002	\$9,600,000 - \$2,200,000	
<b>Estimate of annual increase in revenues</b>		<b>\$7,400,000</b>

Source: GAO analysis of AFIP data.

Note: Numbers may not sum because of rounding.

## The Three Primary Assumptions Used in AFIP's Analysis Were Inaccurate

Using actual data from 2004, we determined that the three primary assumptions that AFIP used in its analysis were inaccurate.

1. AFIP assumed that ARP achieved an annual collection rate of 55 percent. However, according to data provided by AFIP, ARP achieved a collection rate of 80 percent in 2004. One reason that the 250-case sample showed a significantly lower collection rate is that ARP collected payments for some of the cases shown in table 4 after November 2002—the time of AFIP's data request to ARP. In the 5 months that followed AFIP's analysis, ARP collected 37 additional payments, which AFIP did not consider when calculating ARP's collection rate. Including these additional collections would have increased ARP's collection rate for the 250-case sample from 55 to 73 percent.<sup>4</sup> In addition, ARP stated that the sample included 30 cases that were not invoiced by ARP. For 17 of the cases, the pathologist did not provide ARP with documentation of which medical procedures had

<sup>4</sup>According to data provided by AFIP, ARP also achieved an 80 percent collection rate for all consultations revenues generated in 2003.

been performed. For the other 13, it was AFIP's policy not to bill for those types of cases.<sup>5</sup>

2. AFIP officials assumed that they would collect an average of \$555 per case under AFIP's new fee schedule. However, in 2004, the first year in which the new fee schedule was in effect, the average revenue per case was \$299.83. This is primarily because AFIP's sample of 250 cases was not a reliable predictor of average cases over an entire year.
3. In its business plan, AFIP assumed that it would receive 30,224 civilian cases a year. However, AFIP officials reported to us that the institute had received approximately 23,600 civilian cases in 2002. AFIP officials said they made the larger assumption and used that number as a baseline for their calculation because at one time they had identified 30,224 civilian cases for 2002. Since then, they have engaged in a quality review of their data and discovered that some of the consultations had been entered incorrectly. AFIP identified 15,646 civilian consultation cases to be billed in 2004.

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## Results from Our Calculation Using Actual 2004 Data

If the assumptions presented in the business plan are replaced with actual data collected by AFIP in 2004, AFIP stands to generate \$6.4 million less in annual revenue than originally projected. Table 6 shows how we developed our calculation of AFIP's likely financial benefits using 2004 data. We estimate that AFIP will achieve approximately \$1 million in additional annual revenues.

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<sup>5</sup>Prior to the expansion of AFIP's electronic Pathology Information Management System, AFIP pathologists filled out work sheets (called "Green Sheets") by hand which would indicate what medical procedures were performed on a consultation. This work sheet was then sent to ARP, where an invoice was generated and the client was billed.

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**Table 6: Calculation Using Actual Data from 2004**

Calculation	Inputs	Total
Step 1: AFIP identified 15,646 civilian consultation cases to be billed in 2004	15,646	
Step 2: AFIP reported that the average invoice per consultation case in 2004 was approximately \$300 under the new fee schedule	\$299.83	\$299.83
Step 3: Multiply average revenue per case by the number of anticipated cases	15,646 x \$299.83	\$4,691,000
Step 3: AFIP anticipates that it will achieve an 80 percent collection rate of invoices billed <sup>a</sup>	80 percent of \$4,691,000	\$3,753,000
<b>Estimate of the total amount collected by AFIP after taking over billing and collection from ARP and increasing fees</b>		<b>\$3,753,000</b>
Step 6: AFIP reported that ARP collected \$2.7 million in 2003		\$2,713,000
Step 7: AFIP's new projected revenue compared with those of ARP in 2003	\$3,753,000 - \$2,713,000	
<b>New estimate of increased revenues</b>		<b>\$1 million</b>

Source: GAO analysis of AFIP data.

Note: Numbers may not sum because of rounding.

<sup>a</sup>AFIP instituted its new fee schedule in January 2004. Since AFIP took over billing and collection from ARP in October 2004, it is too early to accurately assess AFIP's actual collection rate. AFIP assumed in its previous calculation that it could achieve an 80 percent collection rate; therefore, we used that estimated percentage in our calculation.

# Appendix IV: Comments from the Department of Defense



HEALTH AFFAIRS

Ms. Marcia Crosse  
Director, Health Care  
U.S. Government Accountability Office  
441 G Street, N.W.  
Washington, DC 20548

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, DC 20301-1200

JUN 13 2005

Dear Ms. Crosse:

This is the Department of Defense (DoD) response to the GAO draft report, "ARMED FORCES INSTITUTE OF PATHOLOGY: Business Plan Implementation is Unlikely to Achieve Expected Financial Benefits and Could Reduce Civilian Role," dated May 26, 2005 (GAO Code 290395/GAO-05-615).

Thank you for the opportunity to review the draft report. Overall, we "concur with comment." Our position is based on the following points:

a. The Armed Forces Institute of Pathology (AFIP) Board of Governors (BOG), chaired by the Assistant Secretary of Defense for Health Affairs, reviews the implementation of AFIP's business plan quarterly and has approved changes as required. The BOG is also making preparations to deal with the proposed Base Realignment and Closure recommendations.

b. On 9 Jun 05, the U.S. Army Audit Agency will begin an audit of AFIP business practices to determine if the Institute is operating effectively and efficiently, and possesses the tools to accurately articulate costs, accomplishments, and contributions to the military mission.

My points of contact are COL Gary Matteson (functional) at (703) 681-1703 and Mr. Gunther Zimmerman (Audit Liaison) at (703) 681-3492.

Sincerely,

A handwritten signature in black ink that reads "Jack W. Smith".

Jack W. Smith, MD, MMM  
Acting Deputy Assistant Secretary of Defense  
Clinical and Program Policy

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