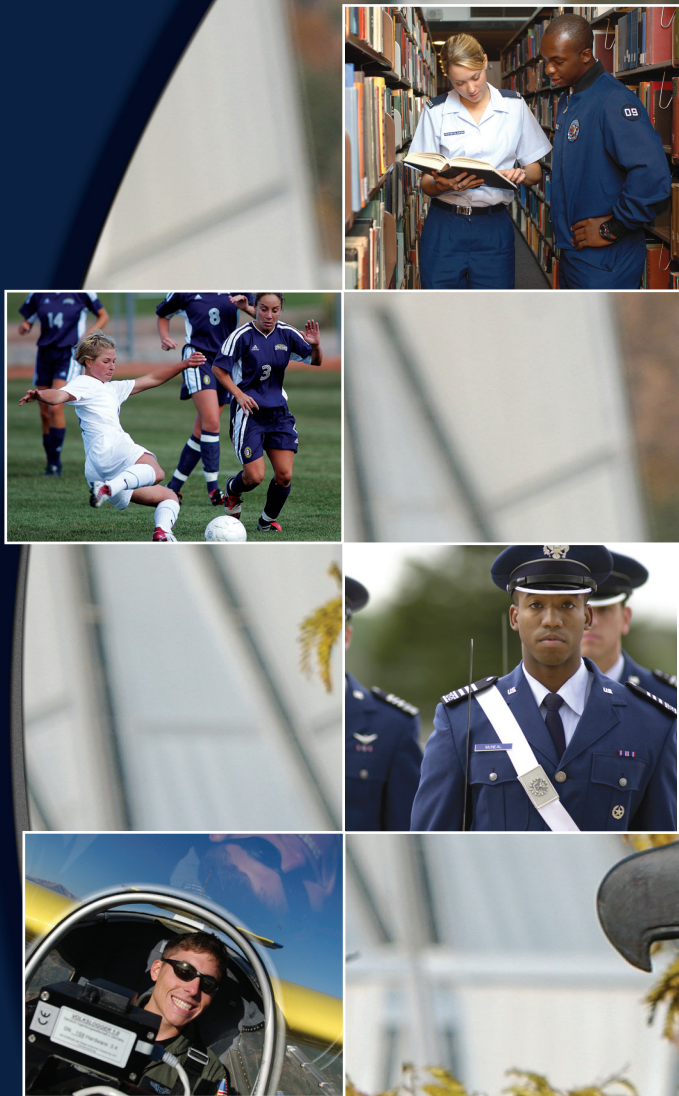


**Executive Summary**



**United States  
Air Force Academy  
Institutional  
Self-Study Report**

**Prepared for the Higher Learning Commission  
of the North Central Association  
of Colleges and Schools, Spring 2009**



# The U.S. Air Force Academy Institutional Self-Study Report

## *Executive Summary*

The United States Air Force Academy (USAFA) earned its initial institutional accreditation prior to graduating the first class of cadets in 1959. In the fifty years since that unprecedented action, we have been continuously accredited, at maximum ten-year intervals, by the North Central Association of Colleges and Schools. In April 2009, we will showcase our world-class facilities, award-winning faculty and staff,<sup>1</sup> and gifted Cadet Wing once more during our next accreditation visit.

The Air Force Academy is widely recognized as one of the finest higher-education institutions in the nation. *U.S. News and World Report* ranks us as the top Baccalaureate College in the West.<sup>2</sup> *Forbes* lists USAFA as the 16th best college in the nation (out of 569),<sup>3</sup> and *Barron's* lists the Academy as one of the “most competitive” colleges in the country. But to be accredited, we must do more than highlight our accolades, we must provide real evidence that the Academy fulfills every Core Component of all five Criteria for Accreditation established by the Higher Learning Commission (HLC) of the North Central Association.

Since our last HLC accreditation visit in 1999, we have made many meaningful improvements to ensure USAFA exceeds all accreditation standards. Some of the key milestones in our deliberate journey towards re-accreditation include: creating the Officer Development System in 2004, embracing a new learning-focused instructional paradigm in 2005, establishing and adopting institution-wide USAFA Outcomes in 2006, articulating learning objectives and assessment plans for every academic major in 2007, formulating an Institutional Effectiveness Program for comprehensive institutional assessment in 2008, and devoting more than two years of collaborative effort to this accreditation self-study.

Over the past two years, the self-study committee worked ardently to identify USAFA's strengths and challenges. But the self-study effort also did much more than just inform us about the institution – it propelled us to change and improve. For example, following our participation in the HLC's Assessment Workshop, members of the self-study committee were instrumental in shaping the strategy that led to the publication of assessment plans in every academic major. The self-study team inspired efforts to complete a new strategic plan. Accordingly, the Superintendent formed an integrated team of faculty and staff that drafted, coordinated, and published the *USAFA Strategic Plan* in 2008. Collaborative efforts such as these permeated the self-study process and, ultimately, led to the publication of our *United States Air Force Academy Institutional Self-Study Report*. The *Self-Study Report* provides compelling evidence of the Academy's fulfillment of all five HLC Criteria for Accreditation. This *Executive Summary* touches on the highlights of that full report, from Criterion #1 through Criterion #5.



1 For example, USAFA has ranked #1 out of 368 schools four years in a row by the *Princeton Review* for “Professors Make Themselves Available” and a USAFA faculty member has been honored as the *Colorado Professor of the Year* by the Carnegie Foundation for the Advancement of Teaching in six of the last seven years.

2 <http://colleges.usnews.rankingsandreviews.com/college>

3 [http://www.forbes.com/lists/2008/94/opinions\\_college08\\_Americas-Best-Colleges\\_Rank.html](http://www.forbes.com/lists/2008/94/opinions_college08_Americas-Best-Colleges_Rank.html)

# Accreditation Criterion One: Mission and Integrity

*The organization operates with integrity to ensure the fulfillment of its mission through structures and processes that involve the board, administration, faculty, staff and students.*

The mission of USAFA is, "To educate, train and inspire men and women to become officers of character, motivated to lead the United States Air Force in service to our nation." Our widely-published mission statement defines our purpose and primary constituents. To fulfill our mission, USAFA offers a comprehensive, integrated curriculum of academic, athletic, character development, leadership, airmanship and military training experiences to develop cadets into officers of character.

We develop cadets into officers of character using our Officer Development System. The foundations for the Officer Development System are the Constitution, the military Oath of Office, and our United States Air Force Core Values: *Integrity First, Service Before Self, and Excellence In All We Do*. The Officer Development System provides the overarching framework for officer development and the process for developing our USAFA Outcomes in all cadets. These Outcomes, adopted in 2006, encapsulate the *responsibilities, skills, and knowledge* required of Air Force officers:

## USAFA Outcomes

*To commission leaders of character who embody the Air Force Core Values and are . . .*

### **. . . committed to Societal, Professional, and Individual Responsibilities**

- Ethical Reasoning and Action
- Respect for Human Dignity
- Service to the Nation
- Lifelong Development and Contributions
- Intercultural Competence and Involvement

### **. . . empowered by Integrated Intellectual and Warrior Skills**

- Quantitative and Information Literacy
- Oral and Written Communication
- Critical Thinking
- Decision Making
- Stamina
- Courage
- Discipline
- Teamwork

### **. . . grounded in essential Knowledge of the Profession of Arms and Human & Physical Worlds**

- Heritage and Application of Air, Space, and Cyberspace Power
- National Security and Full Spectrum Joint and Coalition Warfare
- Civic, Cultural, and International Environments
- Ethics and the Foundations of Character
- Principles of Science and the Scientific Method
- Principles of Engineering and the Application of Technology

These outcomes are the focus of all of the Academy's programs, and reflect our position as a higher education institution accountable to the United States Air Force and the nation.

Our commitment to developing officers of character for the Air Force is all-encompassing, and explicitly codified in a number of Air Force and Department of Defense instructions that specify USAFA's organization and governance. To ensure we are complying with all governing directives and effectively fulfilling our mission, the Air Force conducts a comprehensive Unit Compliance Inspection of USAFA every three years. During our most recent Unit Compliance Inspection, in March 2008, the Academy earned an overall *Excellent* rating from the Air Force Inspection Agency, which wrote:

*The United States Air Force Academy clearly excels at its mission to “. . . educate, train and inspire men and women to become officers of character motivated to lead the United States Air Force in service to our nation.” During this comprehensive inspection, our inspectors observed a tremendous sense of pride, cohesion, energy and mission focus across USAFA’s mission elements.<sup>4</sup>*

We seek to draw young men and women of all cultural and ethnic backgrounds from all parts of the country to attend USAFA and, ultimately, graduate and serve as officers of character in our Air Force. Enhanced diversity of our faculty, staff and cadet population improves our cadets’ education by exposing them to a broader range of experiences and ideas. Enhanced diversity also prepares cadets better for leading an Air Force that operates globally. To be successful, officers in today’s expeditionary Air Force must be capable of working with military forces and people of many differing cultures and views. Therefore, we have made enhancing the diversity of our faculty, staff, and Cadet Wing one of the Academy’s seven Strategic Goals.<sup>5</sup>



To pursue this goal, we implemented a number of new programs and initiatives. For example, the Dean of Faculty organization actively recruits faculty members from Historically Black Colleges and Universities, and Minority Institutions. The Dean of the Faculty is also using our Graduate School Program to build a pool of highly-qualified and diverse military faculty members to fill future teaching assignments at USAFA. We have also made tremendous efforts to enhance the diversity of our cadets. In many ways, the Cadet Wing is representative of the nation we serve. The Congressional nomination process ensures exceptional geographic diversity, and our cadets mirror the nation at large in religious affiliation. But in more traditional measures of diversity, it has been difficult for us to attract large numbers of women (19%) and racial/ethnic minorities (22%) into the Cadet Wing. To address this challenge, the Academy created a *USAFA Cadet Wing Diversity Plan* and has embarked on an aggressive campaign to reach out to underrepresented communities and identify qualified candidates. We are also implementing plans and hiring additional teachers, advisors, and tutors to enhance retention and create an environment where cadets of every gender, race, ethnicity and faith can thrive and feel welcome.

As we fulfill our officer-development mission, USAFA is especially mindful of the integrity of our institution, programs, and personnel. As a taxpayer-funded Service Academy, we rightfully fall under an enormous amount of scrutiny and strive to be proactive about releasing information to the public. Federal laws, external oversight, and internal monitoring ensure fair policies, proper conduct and appropriate dealings with internal and external constituencies. But integrity has an even broader meaning at the Academy than just being true to our institutional mission. Integrity is foundational to our Air Force Academy culture, and it is the first and foremost Air Force Core Value. Ethical reasoning, courage, and the respect for human dignity are embedded in our USAFA Outcomes, and the Cadet Honor Code defines our way of life at the Academy:

## **We Will Not Lie, Steal, or Cheat, Nor Tolerate Among Us Anyone Who Does**

While many colleges have honor codes, the Academy’s Cadet Honor Code is exceptional in its application to all areas of life and behavior, inside and outside the classroom, and because of its strong enforcement and non-toleration clause.<sup>6</sup>

<sup>4</sup> AF Inspection Agency, Unit Compliance Inspection Report, pg 1, 10-18 March 2008.

<sup>5</sup> Strategic Goal 4 of the USAFA Strategic Plan is to “Enhance Faculty, Staff and Cadet Diversity.” See page 9 of the Strategic Plan for details.

<sup>6</sup> The “non-toleration” clause of USAFA’s Honor Code requires cadets to confront and report suspected violations of the Honor Code. Tolerating (failure to report) lying, cheating, or stealing is itself a violation of the Code and can also be cause for dismissal from the Academy.

The evidence in the self-study report clearly demonstrates that USAFA meets all of the requirements of Criterion 1 and its five Core Components. Our Criterion 1 strengths are the Academy's clear mission and strong mission focus, our solid links to our primary constituents, and our proven commitment and ability to change and improve. Our principal Criterion 1 challenge is the ability to attract larger numbers of women and racial or ethnic minorities to USAFA, despite our significant emphasis on enhancing diversity.

## Accreditation Criterion Two: Preparing for the Future

*The organization's allocation of resources and its processes for evaluation and planning demonstrate its capacity to fulfill its mission, improve the quality of its education, and respond to future challenges and opportunities.*

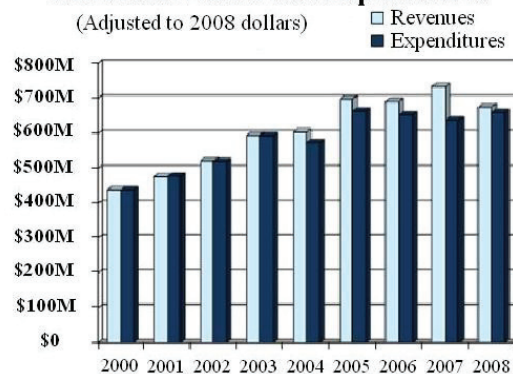


The Academy has sufficient resources to fulfill its mission. Designated a National Historical Landmark in 2004, the Air Force Academy's 18,000 acres form a small city containing over 1,000 buildings, 660 miles of utility lines, and 170 miles of roads. USAFA's academic buildings contain more than 250 classrooms and 1.4 million square feet of space with wireless network and internet connectivity accessible in all classrooms and offices. The academic library has over 83,000 linear feet of shelving and contains over 1.8 million items. The dormitories contain 2,184 rooms to house the approximately 4,500 cadets currently at USAFA. Over 3,700 full-time military and civilian personnel are assigned to the Academy to maintain the installation and support USAFA's mission of developing cadets into officers of character. The Academy's 8/1 student-to-faculty ratio compares favorably to the top public and private universities in the nation, and almost 70% of the classes taken by our cadets contain fewer than 20 students in the classroom.

The Air Force has confirmed the value it places on the Academy by providing sufficient funding to operate and improve USAFA's educational facilities and programs. As shown in the chart to the right, USAFA's budget (adjusted to 2008 dollars) has increased significantly since our last accreditation visit. Since 1999, the Air Force has provided over \$180M to renovate the Academy's buildings and infrastructure. The Air Force has also provided over \$40M in funding since 1999 to add important new facilities at USAFA, including the Falcon Athletic Center, Airfield Control Tower, Anti-Terrorism Security Gates, Security Fencing, and Pass and ID Facilities. Looking to the future, the Air Force has committed to funding USAFA sufficiently to continue offering and improving our world-class education and training programs in facilities that ensure the Academy is able to rapidly respond to future challenges and opportunities.

**USAFA Revenues and Expenditures**

(Adjusted to 2008 dollars)



Source: USAFA/FM, 30 Jan 09

We have repeatedly demonstrated the ability to change swiftly in response to unforeseen challenges that impact the Academy and the Air Force's mission. For example, the threat of terrorism and the recent wars in Iraq and Afghanistan highlighted the increasingly important role demographic change, language, and culture are having on our nation's security. To enhance our cadets' language and culture capabilities, we hired 17 new foreign language instructors and nearly doubled foreign language class enrollment and cadet foreign exchange programs since 2005.

With \$300,000 in annual funding from the Olmsted

Foundation and over \$5M from the Department of Defense, we have also dramatically increased participation in language and culture immersion trips, from 82 cadets in 2005 to more than 400 cadets in 2008. In 2009 we hope to send almost 600 cadets abroad.



We have demonstrated the ability to anticipate and adapt to emerging factors that are likely to impact our ability to prepare cadets for the challenges they will face as Air Force officers. For example, the Academy developed an Information Assurance, now Cyber Warfare, concentration for computer science majors in 2003 – two years before the Air Force adopted Cyberspace as part of its mission, and five years before the Air Force established a career field for “Cyberspace Warfare” officers.

To help assess how well we are fulfilling our mission, we maintain an extensive database on current and former cadets. In cooperation with the Air Force, USAFA collects, maintains and analyzes data on cadets from the time they first contact our admissions office, throughout their academy experience, and into their careers as Air Force officers. We collect evidence on how our cadets perform academically, athletically, and militarily at the Academy. We also collect evidence on how cadets perform after graduation, both absolutely in terms of Air Force promotion statistics, and relatively compared to officers from other accession sources.

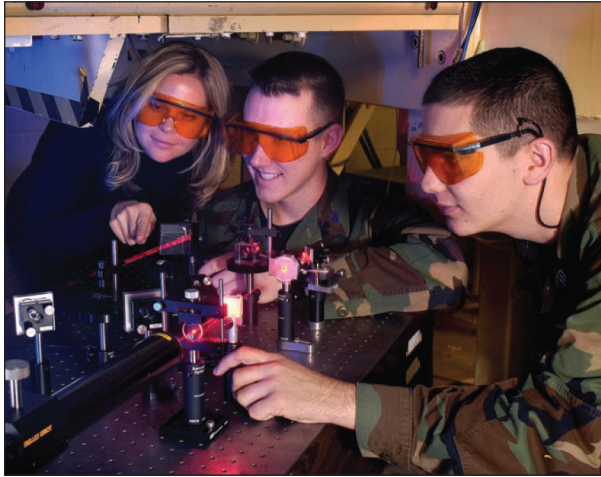
When possible, we attempt to use the information maintained in our databases to inform processes for continuous improvement, under the watchful direction of the Academy's leadership, the Air Force, and Congress. However, the sheer volume of the data we collect has at times made closing the loop on evaluation challenging. To remedy this problem, and ensure all of our assessment efforts receive the attention of USAFA's leadership, we have recently developed a new Institutional Effectiveness Program to formalize the feedback loop between assessment, evaluation, and program change. Although the execution of the Institutional Effectiveness Program is still in its infancy, we are optimistic that it will further facilitate a culture of continuous improvement at USAFA.

The evidence in the self-study report clearly demonstrates that USAFA meets all requirements of Criterion 2 and its four Core Components. Our strengths under Criterion 2 are the Academy's funding and resourcing by the Air Force, our future focus and ability to rapidly adapt to anticipated and unforeseen changes, and the comprehensive data we collect and maintain on cadets from the time they apply for admission until they retire from the Air Force. These strengths ensure we are well-prepared for the future, and have the ability to continuously improve in the face of challenges and opportunities. Our principal challenge under Criterion 2 is more efficiently closing the loop on the volumes of feedback and data the Academy collects – a situation that we believe will be improved, in large measure, by the new Institutional Effectiveness Program.

## Accreditation Criterion Three: Student Learning and Effective Teaching

*The organization provides evidence of student learning and teaching effectiveness that demonstrates it is fulfilling its educational mission.*

Evidence of USAFA's success fulfilling its academic mission is ubiquitous. In our short 50-year history, the Academy has produced 35 Rhodes Scholars, 10 Marshall Scholars, 14 Truman Scholars, and 36 Fulbright Scholars. One hundred forty-four USAFA cadets have won graduate scholarships to the Massachusetts Institute of Technology and 112 have earned graduate scholarships to Harvard. In addition to ranking USAFA as the best Baccalaureate College in the West, *U.S. News and World Report* also listed the Air Force Academy as #2 in the nation for undergraduate Aeronautical and Astronautical Engineering, #8 in Electrical Engineering, and #8 overall for undergraduate engineering programs. *Leadership and Excellence* magazine rated the Academy as the third-best government and military leadership development institute in 2008/2009. Our cadets rated USAFA highly in a number of the *Princeton Review's* annual college rankings, including #1 of 368 colleges for "Most Accessible Professors" for the fourth year in a row, and #6 for "Stone-Cold Sober" schools (high amounts of study and low use of alcohol and drugs). More recently, in January 2009, the *Princeton Review* rated USAFA as one of the top 100 "Best Value Colleges" in the nation.



In 2006, we adopted a set of USAFA Outcomes representing the *Knowledge, Skills and Responsibilities* our graduates should possess to successfully lead as officers and citizens in the 21st century Air Force. The integrated, year-long effort to develop these USAFA Outcomes coincided with the introduction of the Dean of the Faculty's learning-focused initiative. The learning-focused education and training approach adopted by the Academy has also led to the development and articulation of programmatic-level outcomes. Since 2007, every academic department at USAFA has developed and articulated outcomes for their majors that serve as focal points for department assessment.

Learning outcomes and objectives are also embedded in the Academy's non-academic programs, such as our Physical Education curriculum and our Cadet Professional Military Education curriculum. In short, all of the Academy's programs are intentionally designed to contribute in some important way to the development of officers of character in accordance with our Strategic Plan guidance to, "ensure that all of our programs have focused objectives aimed at achieving USAFA's outcomes."<sup>7</sup>

To develop the USAFA Outcomes in every cadet, we have linked the USAFA Outcomes to the common core experiences of all cadets. The result of this mapping exercise is the core Curriculum Outcome and Alignment Plan. The Curriculum Outcome and Alignment Plan represents a significant step forward in the Academy's learning-focused approach to education and training by ensuring each USAFA outcome is intentionally developed and assessed for every cadet.

<sup>7</sup> USAFA Strategic Plan, page 5.



We employ many methods to assess student learning and effective teaching, including end-of-course critiques, course assessment reports, rubrics, portfolios, surveys, and standardized testing. In nationally-standardized tests, our cadets consistently perform at high achievement levels. For example, over the past three years, 90% of the USAFA cadets who have taken the eight-hour Fundamentals of Engineering exam have passed – a substantially higher pass rate than the national average.



As we have become more learning-focused, we increasingly use our assessment tools to make improvements to our curriculum and courses. For example, our management majors at the Academy have consistently scored in the top 5% to 20% nationwide on the management Major Field Test produced by the Educational Testing Service. However, in the early 2000s, the Department of Management noticed the sub-scores and performance on the economics portion of the exam were low relative to other portions of the exam. To correct this deficiency, in the fall of 2005 the Department of Management collaborated with the Department of Economics and Geosciences to begin teaching an upper-level economics course for all management majors. This curriculum adjustment had an immediate and dramatic effect on the cadets' subsequent Major Field Test performance, and they have scored in the top 5% of the nation on this subsection every year since.

The high success rate of USAFA cadets on nationally-normed tests like the Fundamentals of Engineering and Major Field Test exams are just one reason we consistently garner top academic ratings by organizations like *U.S. News* and the *Princeton Review*. Other reasons we receive top educational marks are our small class sizes and strong emphasis on teaching excellence. Demonstrated excellence in teaching is a fundamental requirement for appointment, reappointment, and promotion for academic faculty. We do not use "Teaching Assistants" as is common at many colleges, and virtually all faculty members are full-time employees. Our combination of civilian and military faculty enables us to offer cadets the best mix of educational experiences. Our civilian faculty members provide seasoned instruction, leading-edge intellectual research, and curricular continuity. Our military faculty members connect our academic disciplines to Air Force operations and serve as easily identifiable officer role models.



We invest heavily in faculty development. All new and returning faculty members are required to participate in a faculty orientation program centered on enhancing student learning. The Center for Educational Excellence sponsors frequent faculty development workshops, and academic departments spent over \$1M sending faculty members on trips to teaching seminars, research symposiums, and other faculty-related conferences in 2008.

We recognize and honor teaching excellence. We are especially proud of the external recognition and awards our instructors receive. For example, in six of the last seven years, a USAFA faculty member has been selected as the "Colorado Professor of the Year" by the Carnegie Foundation for the Advancement of Teaching.

We also invest heavily in the professional development of our staff and commanders who serve in leadership and mentoring roles for cadets. All of our enlisted Academy Military Trainers complete USAFA's Military Training Non-Commissioned Officer course, and all new Air Officers Commanding complete a masters degree in leadership and counseling the year prior to taking command of their cadet squadrons. The teaching and mentoring provided by our highly-qualified faculty and staff help to create an environment supportive of cadet learning. Results from the National Survey of Student Engagement (NSSE), administered in 2002, 2005, and 2008, provide strong evidence of our highly-engaging learning environment.

## Air Force Academy 2008 NSSE Executive Snapshot <sup>8</sup>

	Class	USAFA	Comparison Groups		
			Military Academy	Selected Peers	Selected Peers II
<b>Level of Academic Challenge</b>					
How challenging is your institution's intellectual and creative work?	<b>First-Year</b>	<b>60</b>	–	+	+
	<b>Senior</b>	<b>62</b>		+	+
<b>Active and Collaborative Learning</b>					
Are your students actively involved in their learning individually and working with others?	<b>First-Year</b>	<b>53</b>	+	+	+
	<b>Senior</b>	<b>60</b>	+	+	+
<b>Student-Faculty Interaction</b>					
Do your students work with faculty members inside and outside the classroom?	<b>First-Year</b>	<b>43</b>		+	+
	<b>Senior</b>	<b>54</b>		+	+
<b>Enriching Educational Experiences</b>					
Do your students take advantage of complementary learning opportunities?	<b>First-Year</b>	<b>36</b>	+	+	+
	<b>Senior</b>	<b>54</b>	+	+	+
<b>Supportive Campus Environment</b>					
Do your students feel the institution is committed to their success?	<b>First-Year</b>	<b>68</b>	+	+	+
	<b>Senior</b>	<b>64</b>	+	+	+

A '+' symbol indicates USAFA's score is higher than the respective comparison group at the  $p < 0.05$  level of significance.

A '-' symbol indicates USAFA's score is lower than the respective comparison group at the  $p < 0.05$  level of significance.

A blank space indicates no statistically significant difference in scores.

As is evident in the *NSSE Executive Snapshot*, we compare favorably in every category of student engagement relative to other "highly competitive" and "more selective" peer institutions. We also compare favorably in three of the five categories relative to our sister U.S. Service Academies which, we believe, are among the finest educational institutions in the nation.

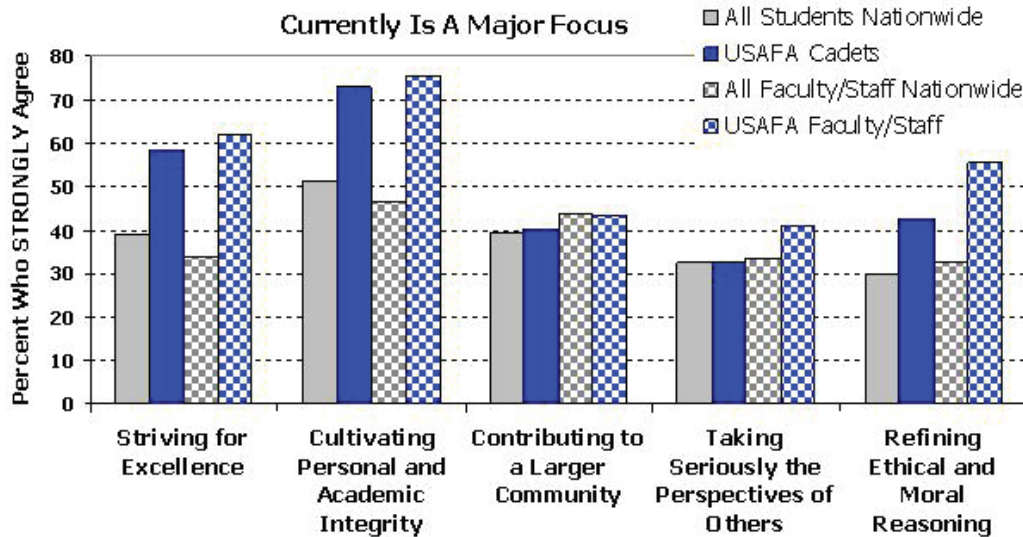


A variety of policies, programs, and personnel contribute to our highly-engaging learning environment such as small class sizes, extraordinarily accessible faculty members, multi-million dollar laboratory facilities, more than a dozen research centers and institutes, a Scholars Program to challenge our most academically advanced cadets, and world-class non-academic facilities and programs, such as soaring and freefall parachuting, that are uniquely suited to USAFA's mission. Nevertheless, it is our commitment to character development and integrity that serve as the foundation of our strong learning environment.

<sup>8</sup> Source: 2008 NSSE *Executive Snapshot* for USAFA, page 4. Comparison groups are defined as follows: -- "Military Academy" compares USAFA with the U.S. Naval Academy and U.S. Military Academy -- "Selected Peers" are 58 institutions ranked by *Barron's Profile of American Colleges* as "Highly Competitive" -- "Selected Peers II" are 133 colleges from the Carnegie Undergraduate Profile of "more selective" 4-year colleges whose first-year student test scores place the schools in the top fifth of baccalaureate institutions.

Academic integrity and the Cadet Honor Code are rigorously enforced at USAFA. In surveys, cadets report that the USAFA faculty and staff, and our academic policies, support the Honor Code. But living honorably at USAFA implies more than just meeting strict standards of academic integrity. It means behaving ethically and responsibly in all aspects of life, and treating others with respect – values that are taught and reinforced through our character development education program and seminars.

Our focus on character development and cultivating personal and social responsibility is evident in the results of the Association of American Colleges and Universities (AAC&U) *Personal and Social Responsibility Institutional Inventory* administered in 2007. As shown below, relative to other colleges and universities, a noticeably larger percentage of our personnel *strongly agree* that USAFA makes personal and social responsibility a major focus of our institution.<sup>9</sup>



When one combines the number of cadets, faculty and staff who *strongly agree* or *agree*, there is a near consensus that we make these issues of personal and social responsibility a major focus of USAFA's highly-engaged learning environment.



Despite our efforts to provide a positive learning environment, the young men and women in our Cadet Wing still experience developmental, emotional, psychological, and leadership challenges just like students at other schools. Therefore, we provide a wide range of services to support their needs through the Peak Performance Center, an award-winning Personal Ethics and Education Representative program, a chaplain staff that provides confidential counseling and spiritual guidance to cadets of all faiths, and a variety of support groups tailored to specific interests, such as our Women's Forum, Dignity and Respect Council, Multi-Cultural Council, and comprehensive Sexual Assault Prevention and Response program.

Our Sexual Assault Prevention and Response program, in particular, has been praised by experts both inside and outside the DoD for helping to curb sexual assault and harassment, and creating an environment where victims trust the Academy's leadership and are willing to come forward and report incidents. While there is still room for improvement, the surveys and other data we collect regarding the gender climate show that the overall environment for women at USAFA today is improved and positive, and our women cadets report feeling safer here than they would expect at other campuses around the country.

<sup>9</sup> AAC&U report, *Should Colleges Focus More on Personal and Social Responsibility?* Initial survey findings, with USAFA Data added by USAFA/XP, pg 4.

Finally, we have invested heavily in resources to support student learning and effective teaching. Since the 1999 accreditation team visit, we have renovated facilities, increased research funding, increased staffing and support of Student Academic Services, purchased millions of dollars of new equipment for our laboratories and research centers, added and upgraded wireless network connectivity throughout our academic classrooms and facilities, and transitioned to a dual-domain (.edu and .mil) network to provide greater access to the internet for educational purposes.

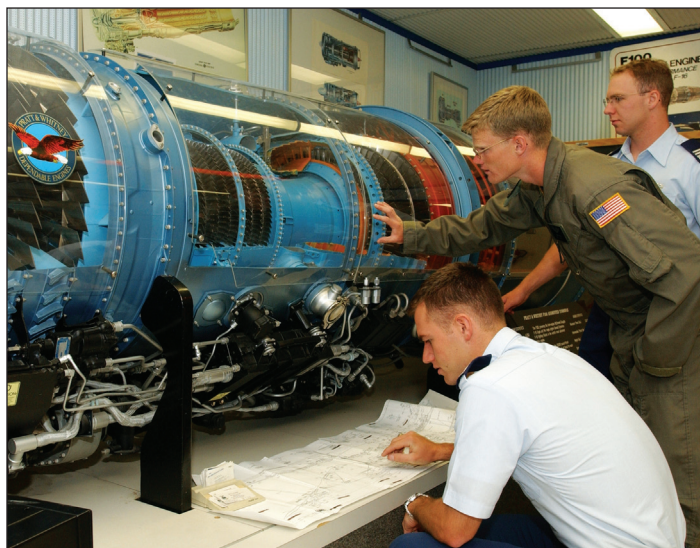


In summary, the evidence in the self-study report clearly demonstrates that USAFA meets all requirements of Criterion 3 and its four Core Components. Our strengths under Criterion 3 are our commitment to teaching excellence, our extraordinary learning environment, and our robust assessment methods. Our challenges under Criterion 3 are the high demands on cadet time, our continued efforts to improve gender relations, the complexity of operating a dual-domain computer network, and the difficulty of measuring and assessing some of our USAFA Outcomes, such as “Courage,” which are atypical in higher education.

## Accreditation Criterion Four: Acquisition, Discovery, and the Application of Knowledge

*The organization promotes a life of learning for its faculty, administration, staff and students by fostering and supporting inquiry, creativity, practice, and social responsibility in ways consistent with its mission.*

Developing lifelong learners is an essential requirement to fulfilling our mission of developing leaders of character for the Air Force. In accordance with our mission, we have adopted outcomes that reflect the priority we have placed on lifelong learning, and on individual, professional, and societal responsibilities for our graduates. We have implemented a broad, integrated academic, athletic, airmanship and military curriculum to prepare our cadets to lead a 21st century Air Force that operates globally. We have established character and leadership programs focused on inspiring cadets to embrace the Air Force Core Values as the foundation of their lifelong development as leaders of character. We have also created unique research environments to cultivate cadet desires for a lifetime of learning, application of knowledge, and creative problem solving.



Research is conducted in every academic department at the Academy, and in each of our eleven research centers and two research institutes. Since our last accreditation visit, we have added five new research centers and institutes, and USAFA also has several “budding” research centers, including an Unmanned Aerial Systems Research Center and an Academy Center for Renewable Energy Research.

The primary motivation behind our research program is to provide intellectually compelling opportunities for cadets to enhance their education and engage in deep, creative, original work that often

contributes directly to the Air Force mission in service to our nation. Although USAFA is an undergraduate institution, our faculty, staff and cadets publish volumes of scholarly research in many of the nation's most prestigious academic and professional journals. For example, in academic year 2007/2008, USAFA members authored and published over 200 scholarly books and peer-reviewed articles.



Cadets conduct research alongside faculty members at USAFA and are routinely recognized for excellence in undergraduate research. For instance, in 2008, USAFA cadets took 1st, 2nd, and 3rd place in the Undergraduate Division at the *American Institute of Aeronautics and Astronautics* Region V Student Paper Conference and Competition at St. Louis University. While the cadets enjoy recognition for their scholarly presentations, they get more gratification from building and testing their research projects. Our eleven research centers offer exceptional hands-on opportunities for cadets to design, build, test, or perhaps even fly their research

projects. For example, we are the only undergraduate institution in the nation where students fabricate, launch and operate satellites in space.

In addition to providing exceptional laboratories and facilities to encourage faculty and cadet research, we also provide substantial funding and support for sabbaticals and professional development opportunities for our faculty, staff, and other assigned personnel at the Academy. In the past two years, five USAFA faculty members have traveled abroad on sabbaticals as Fulbright Scholars. More recently, our civilian faculty members have also had the opportunity to deploy overseas, on a voluntary basis, and work side-by-side with uniformed personnel. For example, in 2008, Dr. Barry Fagin of the Department of Computer Science deployed with a U.S. Air Force team to Aktobe, Kazakhstan to evaluate the curriculum and provide assistance to the Kazakhstan Air Defense Forces Institute.

While deployed, our faculty members must often draw upon, and apply, an amazing breadth of knowledge and intelligence to be successful because the challenges they face on contingency operations are as varied and uncertain as their locations are remote. After graduation, our cadets will face similar wide-ranging challenges in their Air Force careers. Therefore, we provide all cadets with a broad, integrated core curriculum to prepare them for the trials and adversity they will soon face as Air Force officers and commanders.



The core academic curriculum at USAFA is extensive – requiring almost 100 semester hours of academic courses balanced across the basic sciences, engineering, humanities, and social sciences. In addition to this core academic work, cadets may elect to specialize in one or more of 32 academic majors, with all disciplinary and interdisciplinary majors consisting of 147 required semester hours. On top of this demanding academic workload, cadets must also participate in mandatory physical education courses, compete in athletics, complete a rigorous program of military, leadership, and character development training, and often participate in one or more of our exceptional airmanship programs. Although our extensive, integrated core curriculum is unusual in higher education today, it is consistent with the curricula offered by our sister U.S. Service Academies because we all recognize the value of a broad general education to the preparation of military officers.

To ensure our curriculum is effectively preparing our cadets as military officers, the Academy conducts regular curriculum reviews to be highly responsive to our nation's changing security environment and the needs of the Air Force. Since our last accreditation, we have conducted two significant academic curriculum revisions. The revision for the Classes of 2006 through 2010 maintained a balanced curriculum while reducing core academic requirements and providing more choice and flexibility in the majors' programs. This revision also constrained all disciplinary and interdisciplinary majors to the same number of courses, creating a "level playing field" to encourage more cadets to become science and engineering majors to help mitigate serious shortages in Air Force science and technology officer career fields.

The curriculum transformation for the Classes of 2011 and beyond was conducted in concert with the adoption of our USAFA Outcomes and responded, in part, to critical Global War On Terrorism needs identified by the Air Force and Department

of Defense. To support the intentional development of our USAFA Outcomes, this curriculum transformation established guidance for the optimal sequencing of core academic classes for cadets and created a foundation for the Curriculum Outcome and Alignment Plan that links our core curriculum to the USAFA Outcomes. To support Air Force and Department of Defense requirements for a more language-proficient and culturally-literate officer corps, this curriculum transformation also raised the foreign language requirement for all cadets to a minimum of six semester hours (12 hours for social science and humanities majors), and added Portuguese as the eighth foreign language taught at USAFA. In addition, the 2011 curriculum transformation created a one-semester-hour First Year Experience course to help new cadets transition from high school to the intense demands of college and Academy life and study.



To ensure cadets acquire, discover, and responsibly apply the knowledge they learn at USAFA, we have established policies and procedures that require ethical conduct in all research and instructional activities. For example, the Institutional Review Board helps protect the rights and welfare of all human research subjects at the Academy by reviewing all research protocols, assessing the risks before approval, and ensuring research safety and compliance with all federal laws and Department of Defense directives. We also create, disseminate, and enforce clear policies on practices involving intellectual property rights, and we encourage curricular and cocurricular activities that relate the responsible use of knowledge to practicing social responsibility, such as our Cadet Service Learning program

In summary, the evidence in the self-study report demonstrates that USAFA meets all requirements of Criterion 4 and its four Core Components. Our greatest strengths under Criterion 4 are our broad, integrated core curriculum, our cadet-focused research programs, and our strong stakeholder support and involvement by the Air Force. Our largest Criterion 4 challenge is continuing to achieve the delicate balance between maintaining the stability of our curriculum and being responsive to the critical, often urgent, needs of the Air Force.

## Accreditation Criterion Five: Engagement and Service

*As called for by its mission, the organization identifies its constituencies and serves them in ways both value.*

USAFA's mission to educate, train, and inspire men and women to become officers of character, motivated to lead the United States Air Force in service to our nation, clearly identifies our principal external constituents as the United States Air Force and, ultimately, the nation. The mission statement also defines the manner in which we best serve our constituents – by producing officers of character.

Although we exist to produce officers of character for the Air Force and the nation, we also recognize our obligations to other constituents. Internal constituents include our own faculty, staff and cadets. External constituents include former graduates of the Academy, the Colorado Springs community, the higher education community, the Air Force Academy Board of Visitors and, of course, the Department of Defense and Congress. We are actively involved with all of these constituents and serving their needs.

The strength of our ties and engagement with the Air Force is self-evident; we receive our funding, personnel, policies, and oversight from the Air Force. We are highly responsive to Air Force needs, and the Air Force clearly values the services we provide as evidenced by the accolades we received from the Air Force during our 2008 Unit Compliance Inspection.

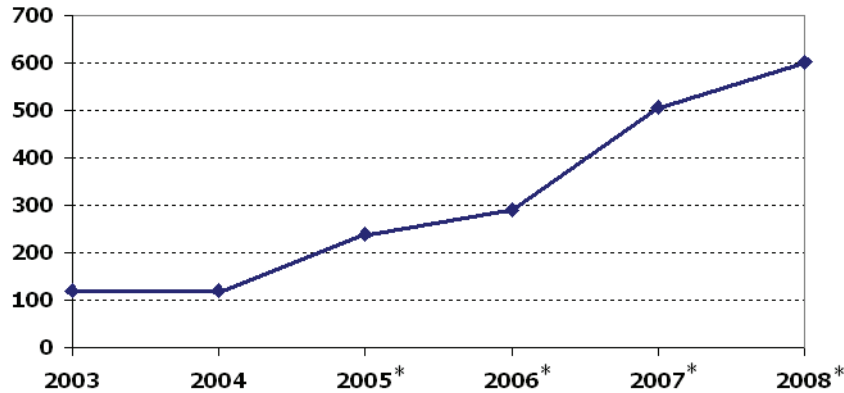
The interactions between the Academy and the Air Force are ubiquitous -- spanning every mission element and involving all levels of personnel from our most senior leaders to our most junior cadets. At the high-ranking end of the personnel spectrum, we host a tremendous number of general officers each year. In 2008 alone, 189 general officers, one active Secretary of the Air Force, and two retired Secretaries of the Air Force, visited the Academy.



At the other end of the spectrum, our cadets are immersed in the Air Force from in-processing to graduation. Cadets participate in a variety of programs that involve them with Air Force units and personnel. One such program, Operations Air Force, sends cadets on three-week summer "internships" to Air Force bases worldwide at an annual cost to the Academy of more than \$3M. Every USAFA cadet is required to participate in an Operations Air Force summer program at least once before graduating and it is one of the most authentic ways for cadets to learn about the Air Force and to make contributions to their host units. Other programs that involve cadets with Air Force units and personnel include the Global Engagement simulated base deployment exercise, our Combat Survival Training program, the cadet squadron sponsor program, and the Dean of the Faculty's Cadet Summer Research Program.

To more directly contribute to the operational Air Force, the Academy has been deploying an increasingly large number of personnel to support the Global War On Terrorism. One of the specified duties of the USAFA Superintendent is to provide “combat-ready forces, support, and equipment to combatant commanders” when directed.<sup>10</sup> As Global War On Terrorism requirements have intensified, the number of Academy personnel deploying has correspondingly increased. In the last academic year alone, 60 Dean of Faculty military members, comprising more than 10% of our total faculty, deployed in support of contingency operations in locations such as Afghanistan, Iraq, and Qatar. While these deployments are not always directly related to a faculty member’s academic expertise, they do provide valuable professional development opportunities for the member’s military career. Deployment taskings have also increased since 2003 for other USAFA organizations, as shown in the chart below.

### USAFA Personnel Deployed



\*2005-2008 numbers include 100 cadets each year deployed to Southwest Asia for Operations Air Force.  
 90% of the deployments listed are in support of Global War On Terrorism operations in CENTCOM.  
 Source: 10MSS/DPM

Our deployed personnel are making significant and highly-valued contributions to the Air Force and our nation’s security. Their sacrifices and contributions also demonstrate to cadets what the Air Force Core Value of “Service Before Self” entails in the operational Air Force. Although these deployments enable faculty and staff to become better mentors and role models for cadets, the larger number of deployments has also presented a challenge to the Academy by placing increased stress on family members, and on the USAFA units from which these personnel are drawn.



In addition to maintaining close ties with the operational Air Force, we also reach out to our local community and the nation at large. To conduct outreach in communities nationwide, the Academy employs a force of approximately 1,600 Admissions Liaison Officers, most of whom are volunteers. In addition to interviewing and evaluating cadet candidates applying for admission to USAFA, Admissions Liaison Officers serve an important liaison function between the Air Force Academy and the 93 cadet Parents’ Clubs spread throughout the country.

Admissions Liaison Officers perform a vital role in contacting and reaching out to prospective cadets from underrepresented districts and minority groups. Our Board of Visitors has also been actively engaged in efforts to increase USAFA’s diversity, meeting with Congressional Representatives to encourage more cadet nominations. As part of our Cadet Wing Diversity Plan, the USAFA Admissions Office conducts approximately 40 recruiting trips per year to areas with high minority concentrations. Last year, our recruiters visited over 500 schools and 200 college fairs, contacted over 30,000 students, and registered over 2,200 interested middle and high school students in our database.

<sup>10</sup> AFMD 12, *United States Air Force Academy*, 17 December 2007, pg 2, para 3.4.



Closer to home, we have many programs that involve faculty, staff and cadets with local communities. One of the most valuable and effective programs that engages cadets with the public is the Commandant's Cadet Service Learning program. USAFA's Cadet Service Learning program requires every cadet squadron to accomplish at least one service learning project during each academic year. Through this program, cadets have donated 43,000 hours of community service to a variety of local charities since 2007.

To the maximum extent possible, given our officer-development mission and operational security requirements, we make our facilities open and available for public use. We receive and approve over 150 requests annually to hold and support outside agency events. For many members of the public, their most frequent interaction with the Academy is attendance at USAFA sporting events. Last year, over 300,000 spectators viewed Air Force athletic teams in action. The Athletic Department also reaches out to the public through its summer Falcon Sports Camp programs. These camps, for athletes between 8 and 18 years of age, are led by USAFA's intercollegiate head coaches, use the Academy's sports facilities, and lodge participants in our cadet dormitories. In 2008, a total of 2,875 young athletes from 45 states and 4 nations participated in Falcon Sports Camps at the Academy.



Perhaps the best example of our commitment to engage with the American public and the local community is the effort and expense we put into reopening the Academy following the terrorist attacks of 9/11. Prior to 9/11, the public was able to drive on and off the Academy with few constraints. After the attacks, concerns over security and the need to provide cadets with a safe educational environment forced the closure of the Academy to the public. But the USAFA leadership recognized the need to reopen as soon as possible. In response, we have added over \$27M in security and force-protection modifications to our campus. The facility improvements, such as pop-up barriers at gates, a video surveillance system, perimeter proximity gates, and a security fence around the cadet area have dramatically enhanced the safety and security of USAFA faculty, staff and cadets. These security improvements are virtually unnoticeable to the visiting public which can once again visit their Air Force Academy.



The self-study evidence clearly demonstrates that USAFA meets all requirements of Criterion 5 and its four Core Components. Our strengths under Criterion 5 are the Academy's exceptional engagement with, and service to, our primary stakeholder, the Air Force. Our principal challenge under Criterion 5 is the additional strain on our faculty and staff caused by the rising number of deployments of Academy faculty and staff in support of the Global War On Terrorism.

## Summary

The evidence presented throughout the *USAFA Institutional Self-Study Report* demonstrates that the Academy completely satisfies all Core Components of the five Criteria for Accreditation. We are clearly fulfilling our mission, and dedicated to pursuing it with integrity. We have sufficient resources to complete our mission today, and an indisputable commitment by the Air Force for continued funding and support in the future. We place a high priority on student learning, teaching excellence, and the accurate assessment of how well we are meeting our outcomes and learning objectives. Due to the grave nature of our military profession, we strongly emphasize the responsible discovery and application of knowledge while at the Academy and in our graduates' future service to our Air Force and our nation. Because we are a Service Academy, funded by the American people to educate, train and inspire officers of character to lead the Air Force, we are exceptionally engaged with, and dedicated to serving all of our stakeholders and constituents.

Finally, as we conducted our institutional self-study over the past several years, we did so with an eye towards the future. In addition to providing evidence that we currently meet accreditation standards, we established programs and assessment processes to ensure we will continue to provide world-class education and training experiences to inspire cadets to serve as leaders of character for our Air Force and nation in the next decade and beyond.





