AFIT Graduate School of Engineering and Management

Fall 2024 Fact Book

Published by the Office of Institutional Research,
AFIT.EN.InstitutionResearch@us.af.mil.

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About the Fact Book

The Graduate School of Engineering and Management (AFIT-EN) Fact Book is compiled annually by the Office of Institutional Research (ENWI), with assistance from other offices and departments. Unless otherwise specified, the Fact Book includes data specific to the Graduate School of Engineering and Management.

The timeframe for the Fact Book data varies based on the type of data. For most of the student information, data are based on a snapshot that is taken on the *Census Date* for the quarter. The *Census Date* occurs approximately three weeks into each quarter and provides a snapshot of the data that is used for future reporting and analysis. Faculty data are also snapshotted once per quarter. However, the fall faculty snapshot, which is based on data as of November 1, is slightly later than the student snapshot in order to be consistent with national reporting guidelines.

> **Fall Term:** The Student Enrollment, Course Enrollments, Student Credit Hours, Student GPA, Faculty Demographics, and Faculty Workload sections are based on data from the fall term.
>
> **Full Academic Year:** The Degrees Awarded, Time to Degree, Retention and Graduation Rates, and On-Time Completion Rates are based on data from the full academic year (October – September). For example, all degrees awarded or all students who entered AFIT-EN during the specified year, regardless of the quarter, are included. Data are based on the Census Date data for each quarter.

Full definitions and guidelines for all Fact Book data are available in the Glossary at the end of the Fact Book. Any terms in the Fact Book that are *italicized* can be found in the Glossary.

For additional information, contact Dr. Andrea I. Bakker, Director of Institutional Research, at AFIT.EN.InstitutionResearch@us.af.mil.

Graduate School of Engineering and Management Overview

The Graduate School of Engineering and Management (AFIT-EN) is the Air Force's advanced academic degree institution which serves the Air Force's STEM workforce needs by providing defense-focused, research-based academic programs leading to the award of master's and PhD degrees in engineering, applied science and selected areas of management. The Graduate School is the only credit-bearing and degree-granting school of the Air Force Institute of Technology (AFIT) and is recognized as a STEM-dominant, high research activity doctoral university through its Carnegie Classification of Institutions of Higher Learning. AFIT maintains three other schools devoted to continuing education and workforce development: the School of Systems and Logistics, the Civil Engineer School, and the School of Strategic Force Studies. In addition, through its Civilian Institution Programs Office, AFIT manages the educational programs of Airmen enrolled at more than 350 civilian universities, research centers, teaching hospitals, and industrial organizations.

AFIT-EN works on the leading edges of the technological disciplines that keep the Air Force dominant in defending the nation. The appeal for AFIT-EN's distinct educational opportunities is widespread and attracts high quality students from the other U.S. armed services, government agencies (both inside and outside the Department of Defense), coalition countries, and U.S. citizens (civilians from the defense industry and critical infrastructure services) from across the country.

AFIT-EN Programs

The following list includes all active programs for AY2324, as of the first day of the academic year. Programs are categorized based on the location of the program.

Distance Offering (DL): An AFIT-EN program where the instructor and students are in different locations from each other and that utilizes the internet or other methods for communicating instructional materials.

On-Site Offering (O): An AFIT-EN program that is offered at a location other than the AFIT campus, but where the instructor and students are in the same physical location as each other.

Resident Offering (R): An AFIT-EN program that is located on the AFIT campus and that includes the instructor and students in the same physical location as each other.

Total Number of Active Academic Programs

	Master's	PhD	Certificate
Total	25	14	18
Resident offering (R)	24	14	15
Distance offering (DL)	3	0	9
On-site offering (O)	1	0	0

ENC – Mathematics and Statistics

	Master's	PhD	Certificate
Applied Mathematics	R	R	

ENG – Electrical and Computer Engineering

	Master's	PhD	Certificate
Autonomy			R
Computer Engineering (ABET – EAC)[1]	R	R	
Computer Science[2]	R	R	
Cyber – Physical Sensing Analysis			R
Cyber – Physical Sensing and Artificial Intelligence			R
Cyber – Physical Sensing and Cyber Attacks			R
Cyber Operations	R		
Cyber Systems	R		
Electrical Engineering (ABET-EAC)	R/DL	R	
Low Observable Materials Engineering			R
Low Observables Radio Frequency Engineering			R

ENP - Engineering Physics

	Master's	PhD	Certificate
Applied Physics	R	R	
Atmospheric Science	R		
Countering Weapons of Mass Destruction			DL
Nuclear Engineering (ABET-EAC)	R	R	
Nuclear Weapons Effects, Policy, and Proliferation			DL
Nuclear Weapons Technologies			DL
Optical Science and Engineering	R	R	

[1] Programs that indicate "ABET – EAC" are accredited by the Engineering Accreditation Commission of ABET. Only master's degree programs are accredited.
[2] The PhD in Computer Science or Computer Engineering allows the student to specialize in Cyber Operations or Information Assurance.

ENS - Operational Sciences

	Master's	PhD	Certificate
Cost Capability Analysis			R
Data Science	R	R	
Logistics and Supply Chain Management	R		
Modeling, Simulation, and Analysis			R/DL
Operational Logistics	R		
Operations Analysis	R		
Operations Management[3]	O		
Operations Research	R	R	R/DL
Test and Evaluation			R/DL

ENV - Systems Engineering and Management

	Master's	PhD	Certificate
Acquisition and Program Management	R		
Applied Systems Engineering[4]	DL		
Cost Analysis	R		
Engineering Management (ABET-EAC)	R		
Data Analytics (EN)			DL
Human Systems Integration			R/DL
Systems Engineering (ABET-EAC)	R/DL	R	R/DL

ENY - Aeronautics & Astronautics

	Master's	PhD	Certificate
Aeronautical Engineering (ABET-EAC)	R	R	
Astronautical Engineering (ABET-EAC)	R	R	
Hypersonic Flight			R
Space Systems	R	R	R/DL
Space Vehicle Design			R

[3] The Operations Management program is located at Ft. Dix.
[4] Master of Engineering (M.E.)

Interdepartmental Programs

	Master's	PhD	Certificate
Materials Science (ENP/ENY)	R	R	

Programs Not Currently Accepting New Students[5]

	Master's	PhD	Certificate
Logistics (ENS)	DL	R	
Nuclear Weapons Technologies			DL
Supply Chain Management (ENS)			DL

[5] These programs are excluded from counts of active programs.

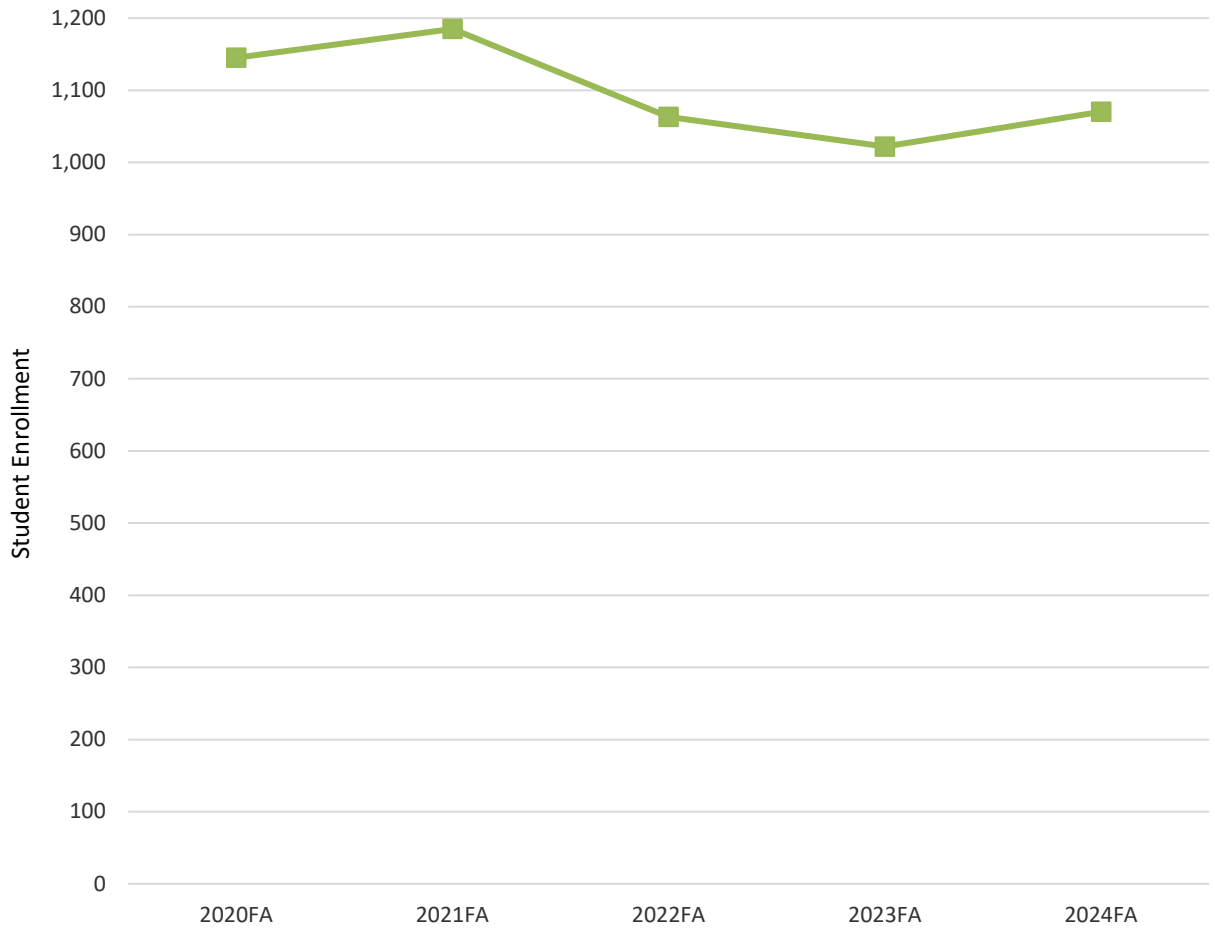
Student Information System

In 2023, AFIT-EN migrated their Student Information System from Colleague to SAP Student Lifecyle Management (SLcM). Due to the migration process, some data for 2023 are unavailable. A degree of caution should be used in interpreting all 2023 data.

Student Enrollment

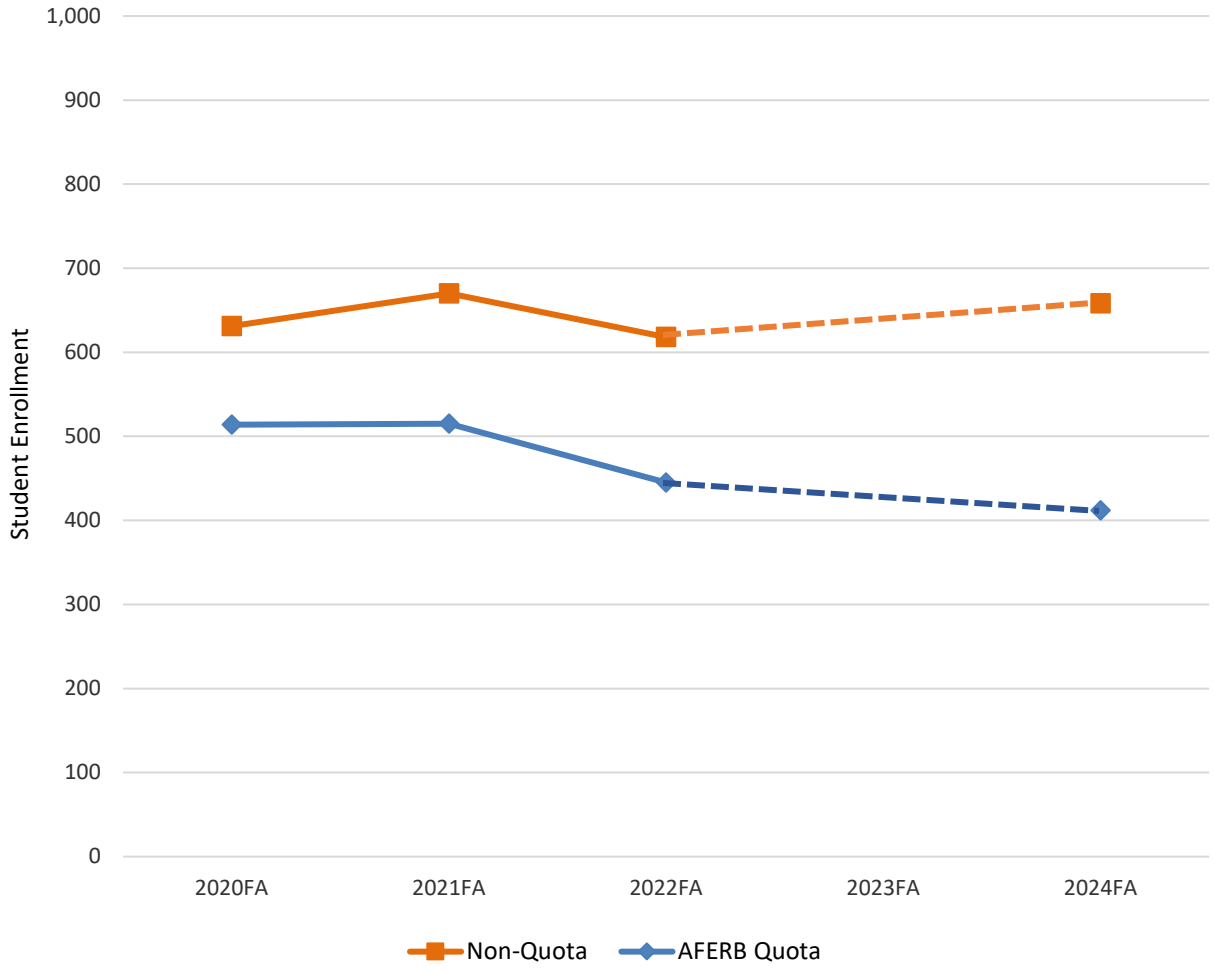
Student Enrollment: The number of students who are enrolled in courses at AFIT-EN during the time period specified. Students who have left AFIT-EN without completing their degree and who are not currently enrolled in courses are NOT counted in *Student Enrollments*, even if they are still working on their thesis/dissertation.

Total Student Enrollment



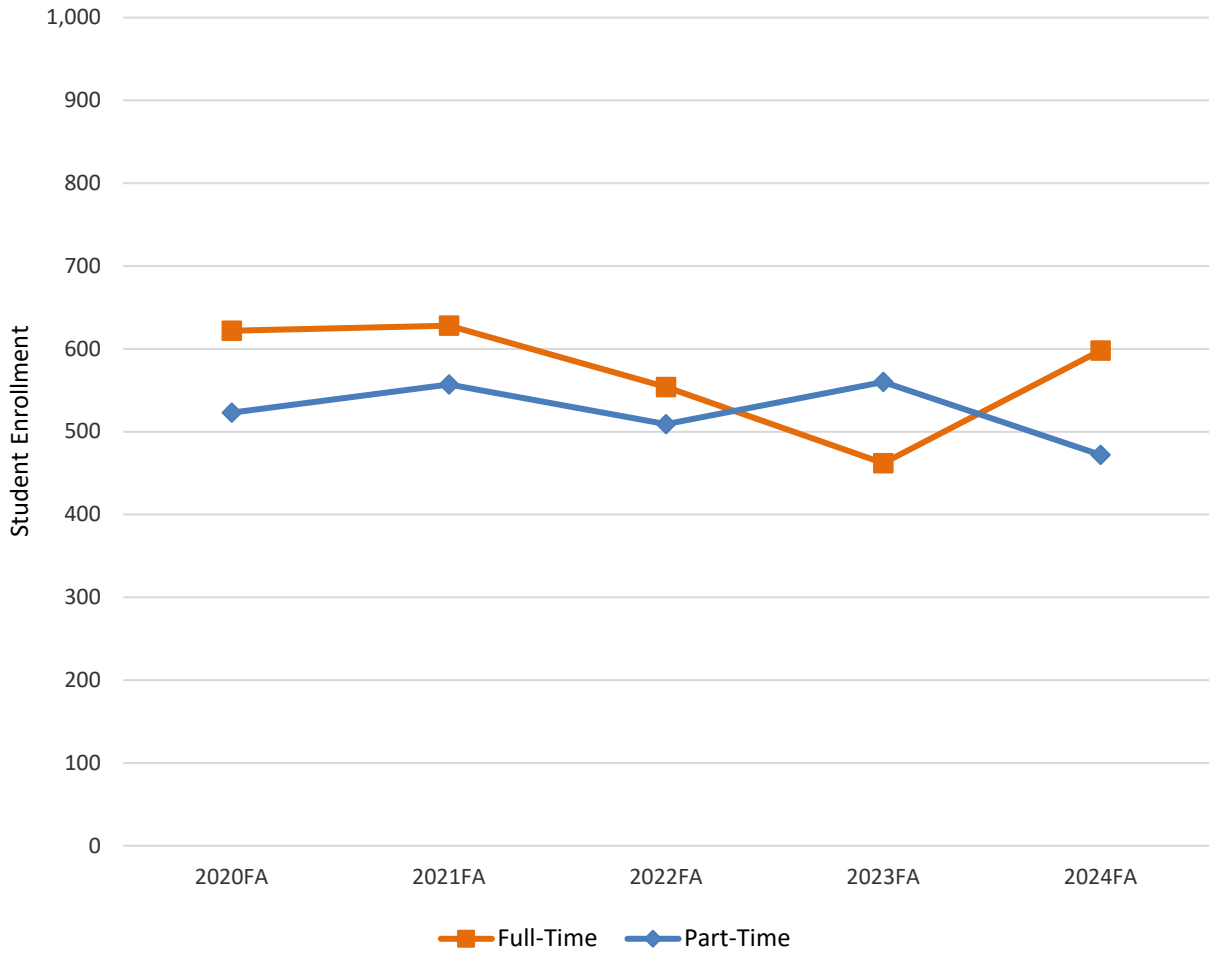
	2020FA	2021FA	2022FA	2023FA	2024FA
Unduplicated Headcount	1,145	1,185	1,063	1,022	1,070

Quota Status



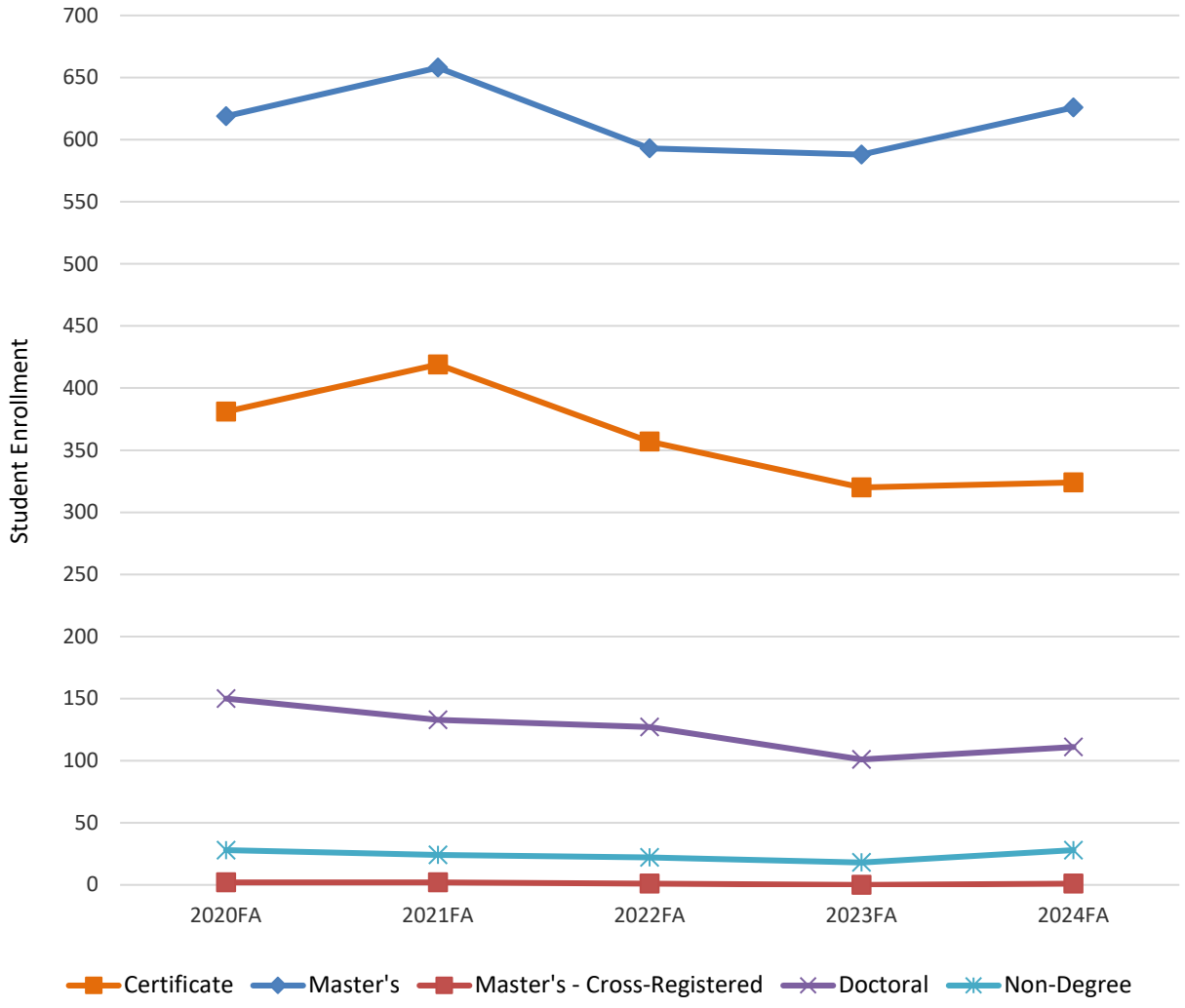
	2020FA	2021FA	2022FA	2023FA	2024FA
Non-Quota	631	670	618	N/A	658
AFERB Quota	514	515	445	N/A	412

Full-Time/Part-Time Status



	2020FA	2021FA	2022FA	2023FA	2024FA
Full-Time	622	628	554	462	598
Part-Time	523	557	509	560	472

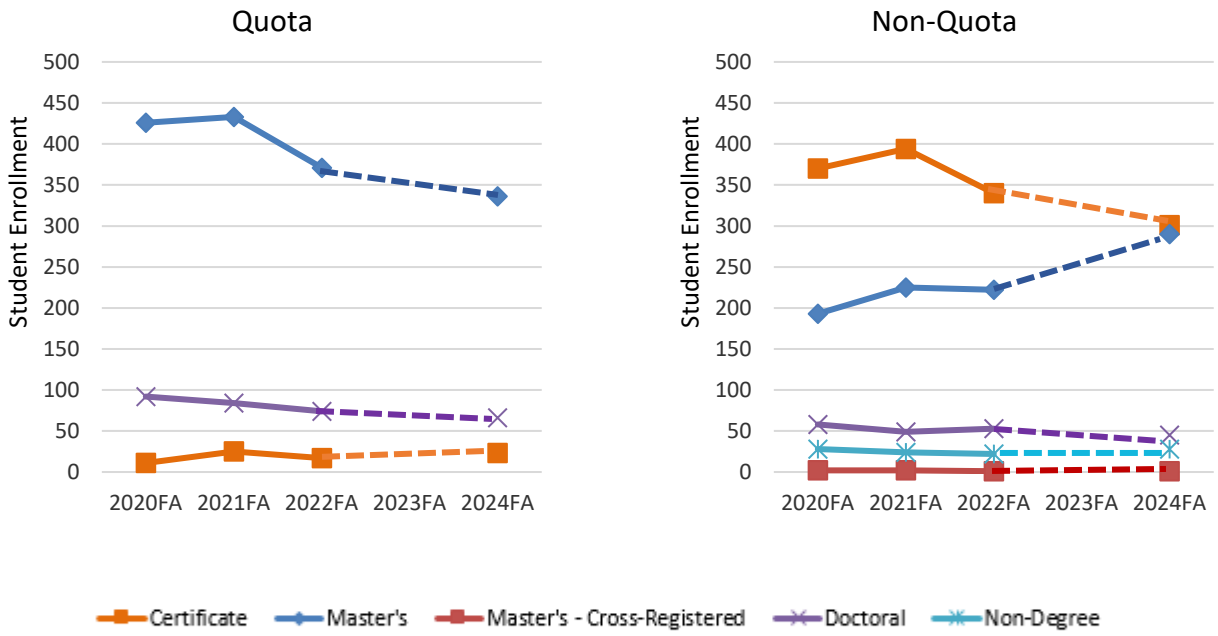
Degree Type[6]



	2020FA	2021FA	2022FA	2023FA	2024FA
Certificate	381	419	357	320	324
Master's	619	658	593	588	626
Master's - Cross-Registered	2	2	1	0	1
Doctoral	150	133	127	101	111
Non-Degree	28	24	22	18	28

[6] Degree type totals may sum to more than 100% due to student enrollment in multiple programs. See the Glossary for details.

Degree Type by Quota Status



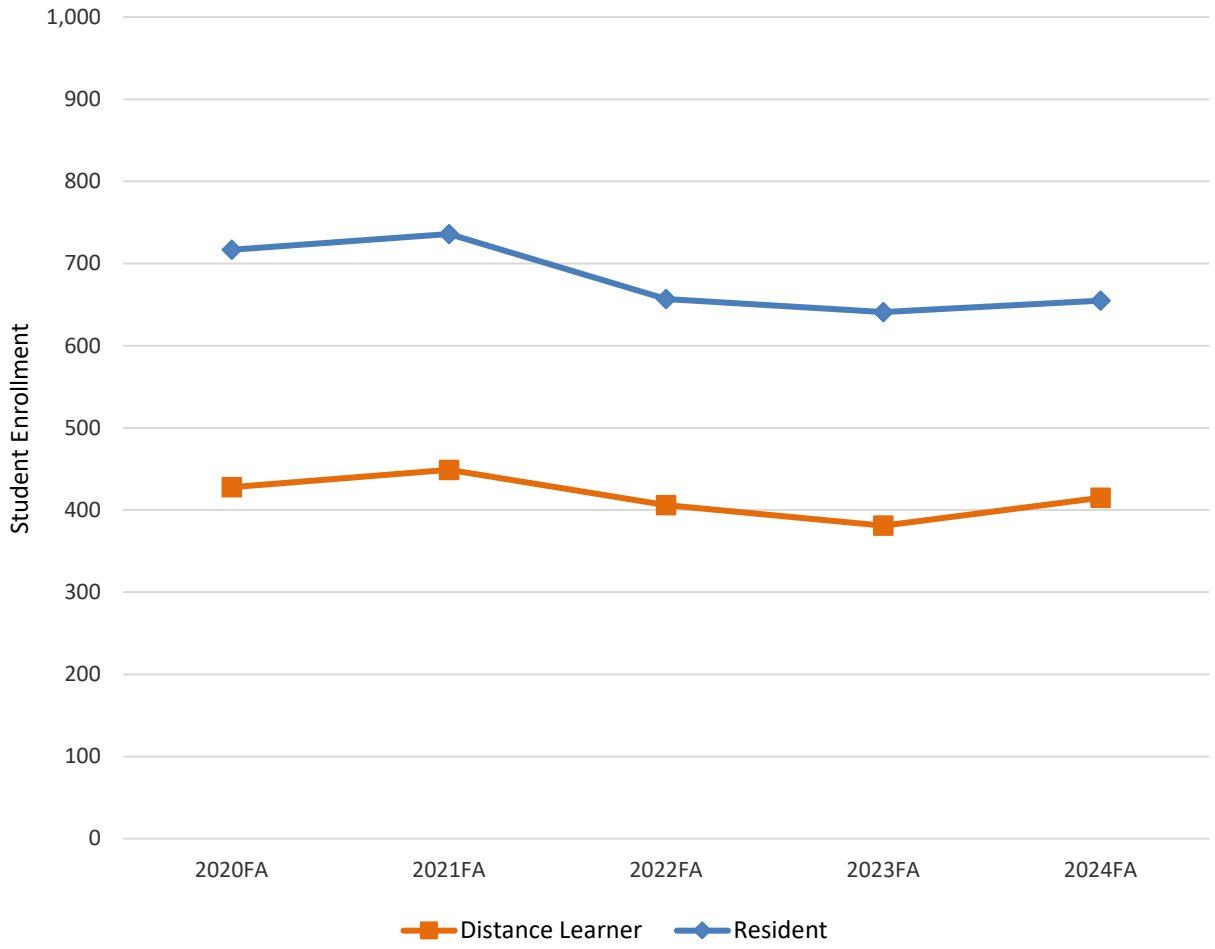
Quota

	2020FA	2021FA	2022FA	2023FA	2024FA
Certificate	11	25	17	N/A	23
Master's	426	433	371	N/A	336
Doctoral	92	84	74	N/A	66

Non-Quota

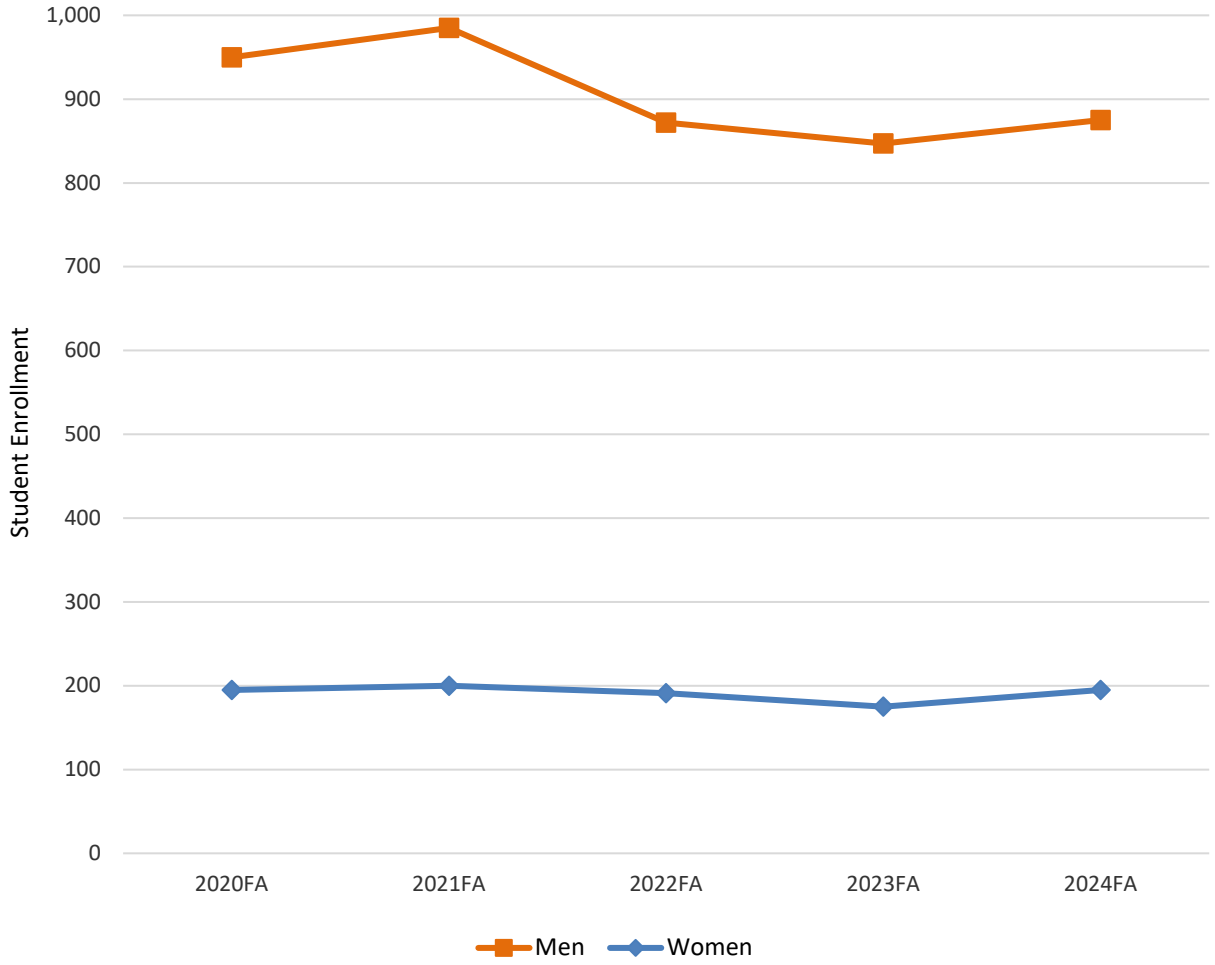
	2020FA	2021FA	2022FA	2023FA	2024FA
Certificate	370	394	340	N/A	301
Master's	193	225	222	N/A	290
Master's - Cross-Registered	2	2	1	N/A	1
Doctoral	58	49	53	N/A	45
Non-Degree	28	24	22	N/A	28

Resident/Distance Learner Status



	2020FA	2021FA	2022FA	2023FA	2024FA
Distance Learner	428	449	406	381	415
Resident	717	736	657	641	655

Gender

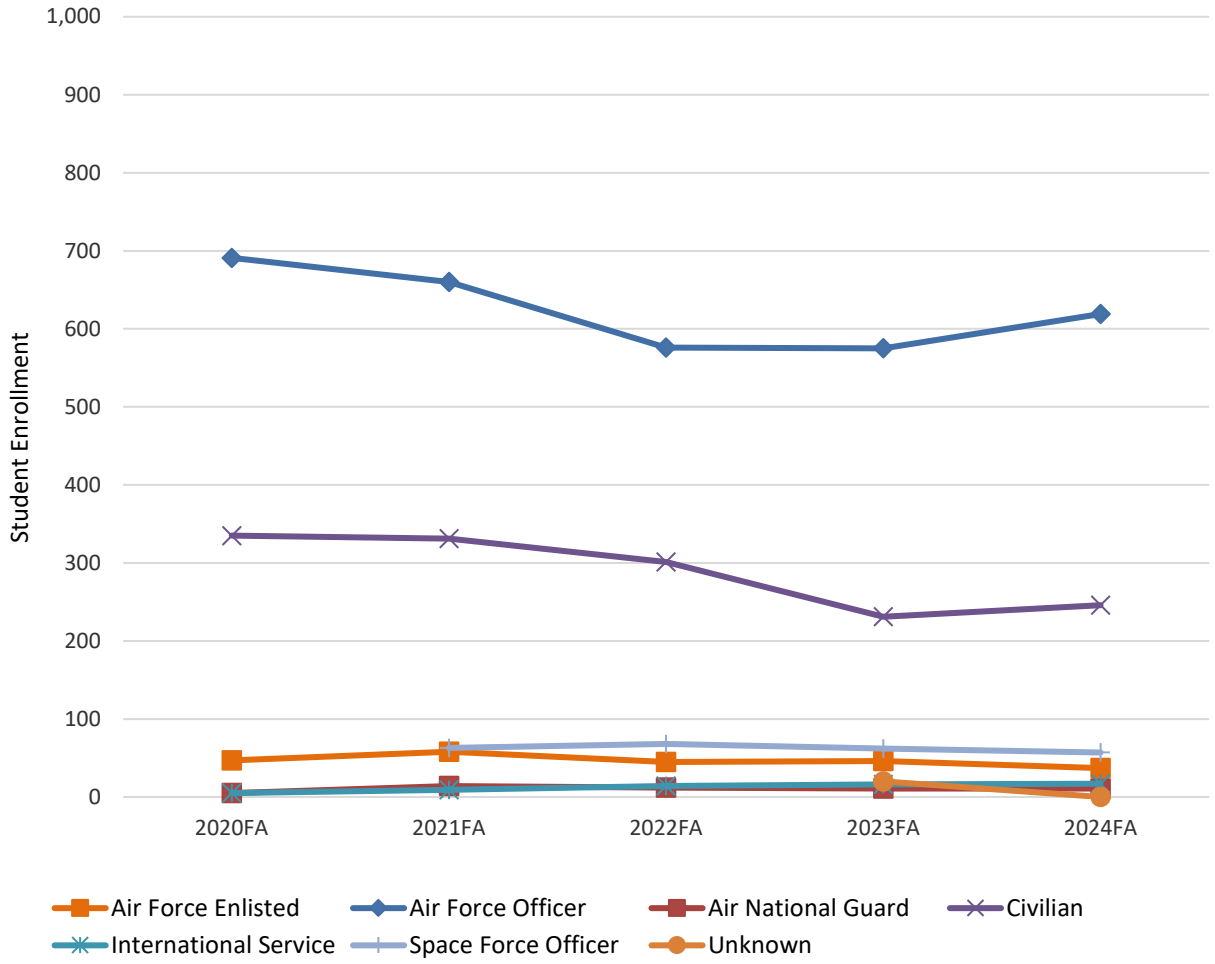


	2020FA	2021FA	2022FA	2023FA	2024FA
Men	950	985	872	847	875
Women	195	200	191	175	195

International Students by Country

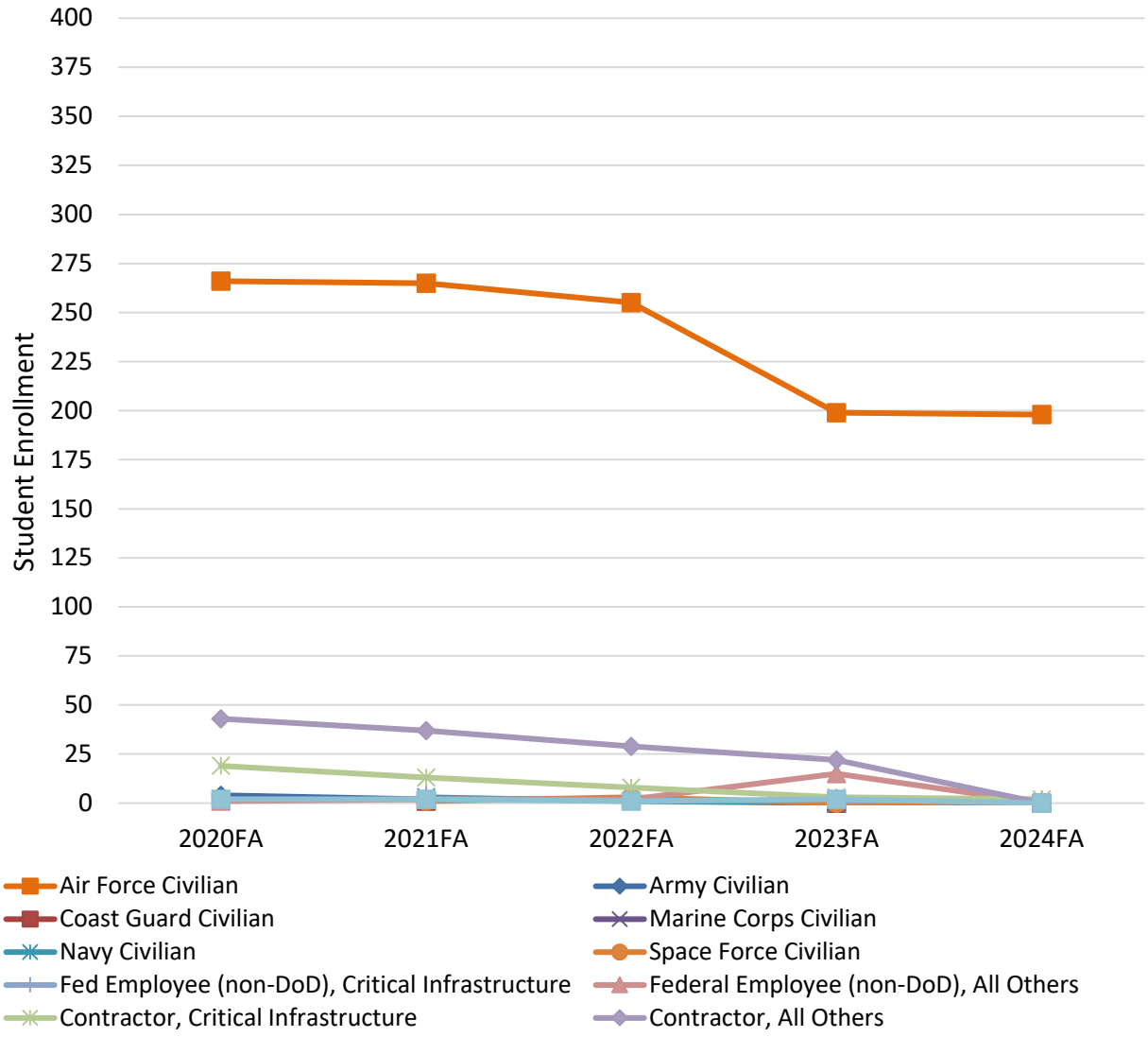
	2020FA	2021FA	2022FA	2023FA	2024FA
AUSTRALIA	2	1	2	1	
BAHRAIN			1	1	
BRAZIL			1	1	3
CHILE					1
ISRAEL		1	3	2	4
KOREA (SOUTH)	1	1			
PAKISTAN	1	1			
SAMOA					1
SAUDI ARABIA	1	4	7	5	4
TURKEY		1			
UNKNOWN				6	4

Service Branch or Civilian Status



	2020FA	2021FA	2022FA	2023FA	2024FA
Air Force Enlisted	47	58	45	46	37
Air Force Officer	691	660	576	575	619
Air National Guard	5	14	12	11	11
Civilian	335	331	301	231	246
International Service	5	9	14	16	17
Space Force Enlisted	0	0	0	1	6
Space Force Officer	0	63	68	62	57
Sister Service - Total	0	0	0	60	0
Army	52	40	33	49	61
Army National Guard	0	2	1	1	7
Coast Guard	1	0	1	1	0
Marine Corps	9	8	11	8	7
Navy	0	0	1	1	2
Unknown	0	0	0	20	0

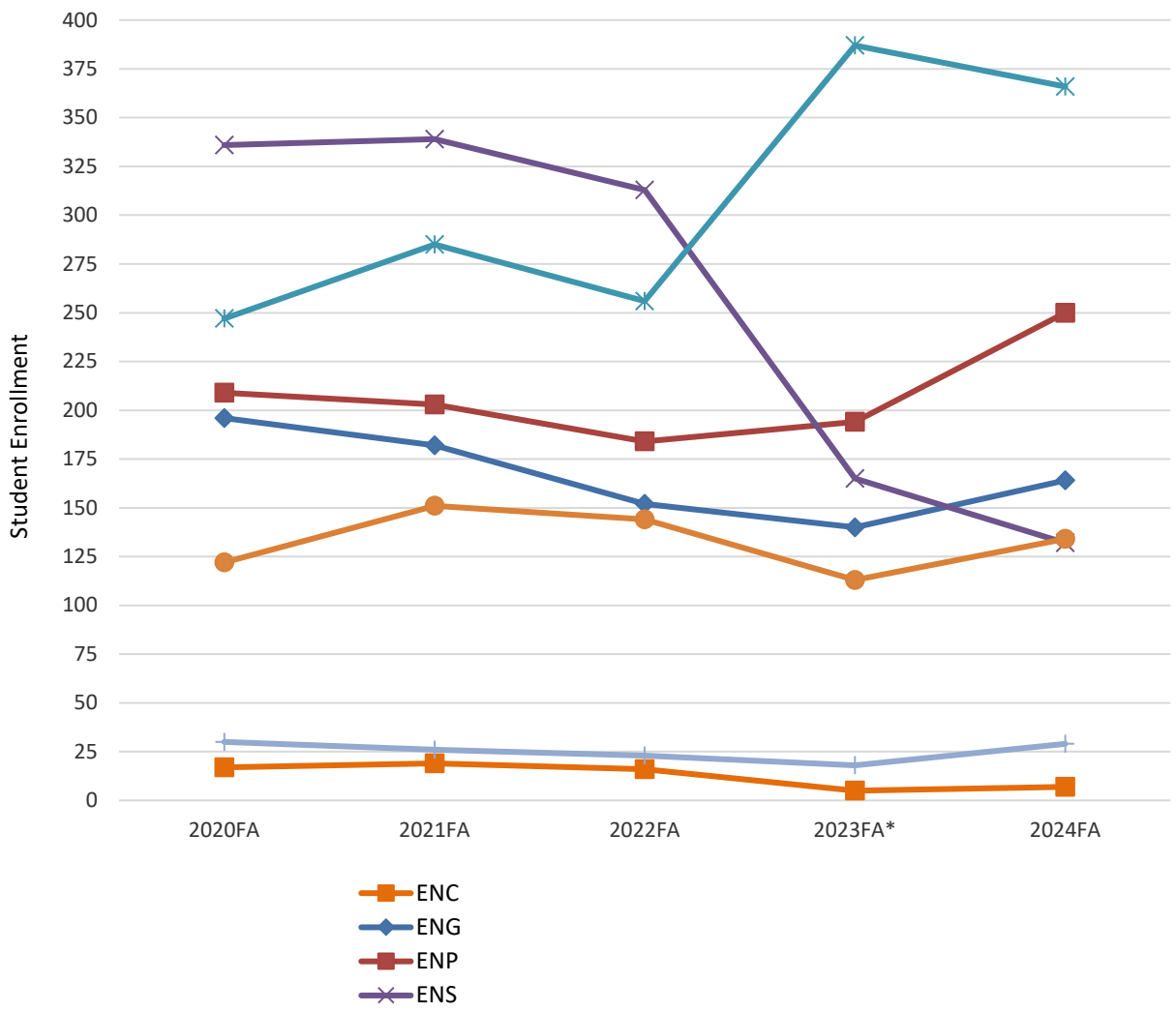
Civilian Type – Detailed



	2020FA	2021FA	2022FA	2023FA	2024FA
Air Force Civilian	266	265	255	199	198
Space Force Civilian		1	3	N/A	N/A
Sister Service Civilian*	4	6	3	13	20
Army Civilian	4	2	2	N/A	N/A
Coast Guard Civilian		1		N/A	N/A
Marine Corps Civilian				N/A	N/A
Navy Civilian		3	1	N/A	N/A
Fed Employee (non-DoD), Critical Infrastructure		5		1	2
Federal Employee (non-DoD), All Others	1	2	2	15	N/A
Contractor, Critical Infrastructure	19	13	8	3	2
Contractor, All Others	43	37	29	22	N/A
Civilian, Other	2	2	1	2	N/A

**Due to a student information system migration, Sister Service Civilian details were unavailable for 2023 - 2024.*

Department[7]



	2020FA	2021FA	2022FA	2023FA*	2024FA
(ENC) Mathematics and Statistics	17	19	16	5	7
(ENG) Electrical and Computer Engineering	196	182	152	140	164
(ENP) Engineering Physics	209	203	184	194	250
(ENS) Operational Sciences	336	339	313	165	132
(ENV) Systems Engineering and Management	247	285	256	387	366
(ENY) Aeronautics & Astronautics	122	151	144	113	134
No Department (Cross-Registered/Non-Degree)	30	26	23	18	29

[7] For Student Enrollments, department is based on the department that houses a student's program. Department totals may sum to more than 100% due to student enrollment in multiple programs. See the Glossary for details.

Program[8]

Certificate Program Enrollments

		2020FA	2021FA	2022FA	2023FA	2024FA
ENG	Certificate in Low Observables Radio Frequency Engineering		3	1		
	Graduate Certificate in Autonomy	3	4	1		7
	Graduate Certificate in Cyber - Physical Sensing and Artificial Intelligence[9]			1		
	Graduate Certificate in Cyber - Physical Sensing and Cyber Attacks[4]			4		1
	Graduate Certificate in Low Observable Materials Engineering		3			
ENP	Basic Meteorology Program					10
	Certificate in Nuclear Weapons, Effects, Policy & Proliferation	77	74	64	77	105
	Graduate Certificate in Countering Weapons of Mass Destruction	38	41	35	22	44
ENS	Cost Capability Analysis Certificate[10]	3	1	2		
	Graduate Certificate in Data Analytics[11]	165	159	142	See ENV	
	Graduate Certificate in Data Science[5]	8	15	1		
	Graduate Certificate in Modeling, Simulation, & Analysis		1	10	1	4
	Graduate Certificate in Operations Research[5]	13	27	22	16	
	Graduate Certificate in Test and Evaluation	29	21	24	21	22

[8] Program totals may sum to more than 100% due to student enrollment in multiple programs. See the Glossary for details.
[9] This program is not currently accepting new students.
[10] This program was deactivated.
[11] Beginning in Fall 2024, the Graduate Certificate in Data Analytics was moved from ENS to ENV.

		2020FA	2021FA	2022FA	2023FA	2024FA
ENV	Graduate Certificate in Data Analytics[12]	See ENS			124	98
	Graduate Certificate for Human Systems Engineering	2	5		5	4
	Graduate Certificate in Systems Engineering	49	64	52	49	23
ENY	Graduate Certificate in Space Systems	1	8	8	3	10
	Graduate Certificate in Space Vehicle Design			2	2	

[12] Beginning in Fall 2024, the Graduate Certificate in Data Analytics was moved from ENS to ENV.

Master's Program Enrollments

		2020FA	2021FA	2022FA	2023FA	2024FA
ENC	Master of Science in Applied Mathematics	4	7	7	3	6
ENG	Master of Cyber Systems		6	7	7	1
	Master of Science in Computer Engineering	15	19	14	9	11
	Master of Science in Computer Science	33	25	31	38	30
	Master of Science in Cyber Operations	19	15	10	13	19
	Master of Science in Electrical Engineering	88	72	51	29	52
ENP	Master of Science in Applied Physics	28	15	18	30	20
	Master of Science in Atmospheric Sciences	6	7	7	5	4
	Master of Science in Materials Science			1	6	
	Master of Science in Nuclear Engineering	20	27	27	30	35
	Master of Science in Optical Sciences & Engineering	3	1	3	5	4
	Master of Science in Scientific and Technical Intelligence[13]	8	13	5	1	
ENS	Master of Operations Analysis		8	8	4	9
	Master of Science in Data Science		9	15	21	23
	Master of Science in Logistics[8]	2	2		1	
	Master of Science in Logistics & Supply Chain Management	20	20	20	18	9
	Master of Science in Operational Logistics[14]				6	

[13] This program was deactivated.
[14] This program is not currently accepting new students.

		2020FA	2021FA	2022FA	2023FA	2024FA
(ENS)	Master of Science in Operations Management	16	16	15	17	15
	Master of Science in Operations Research	72	66	48	48	36
	Master of Science in Supply Chain Analytics[15]	72	66	48		9
ENV	Master of Engineering in Applied Systems Engineering	27	46	45	53	74
	Master of Science in Acquisition and Program Management	1	17	22	18	18
	Master of Science in Cost Analysis	20	19	23	19	16
	Master of Science in Engineering Management	67	51	53	56	55
	Master of Science in Environmental Engineering & Science[16]	9	8	4		
	Master of Science in Industrial Hygiene[11]	4	8	3		
	Master of Science in Systems Engineering	66	64	49	58	70
ENY	Master of Engineering in Aeronautical Engineering		20	14	22	24
	Master of Engineering in Space Systems		8	4	8	2
	Master of Science in Aeronautical Engineering	42	39	40	37	41
	Master of Science in Astronautical Engineering	31	32	30	23	27
	Master of Science in Materials Science	3	2	3		6
	Master of Science in Space Systems	16	18	17	3	10
No Dept.	Cadet Cross Registered Student			1		
	Cross-Registered Master's Student	2	2	1		1

[15] This program is not currently accepting new students.
[16] This program was deactivated.

Doctoral Program Enrollments

		2020FA	2021FA	2022FA	2023FA	2024FA
ENC	Doctor of Philosophy in Applied Mathematics	14	12	9	2	1
ENG	Doctor of Philosophy in Computer Engineering	5	4	5	7	6
	Doctor of Philosophy in Computer Science	13	10	10	10	9
	Doctor of Philosophy in Electrical Engineering	20	21	22	27	31
ENP	Doctor of Philosophy in Applied Physics	14	13	11	5	10
	Doctor of Philosophy in Materials Science	1	1	1	2	
	Doctor of Philosophy in Nuclear Engineering	14	13	12	12	14
	Doctor of Philosophy in Optical Sciences & Engineering	5	2	3	1	4
ENS	Doctor of Philosophy in Data Science					2
	Doctor of Philosophy in Logistics[17]	5	3	3	1	
	Doctor of Philosophy in Operations Research	19	19	17	12	8
ENV	Doctor of Philosophy in Systems Engineering	11	11	8	7	12
ENY	Doctor of Philosophy in Aeronautical Engineering	16	8	10	8	7
	Doctor of Philosophy in Astronautical Engineering	10	12	13	5	5
	Doctor of Philosophy in Materials Science	1		1		1
	Doctor of Philosophy in Space Systems	2	4	2	2	1

[17] This program is not currently accepting new students.

Non-Degree Enrollments

		2020FA	2021FA	2022FA	2023FA	2024FA
No Dept.	**Non-Degree**	28	24	22	18	28

Student FTEs

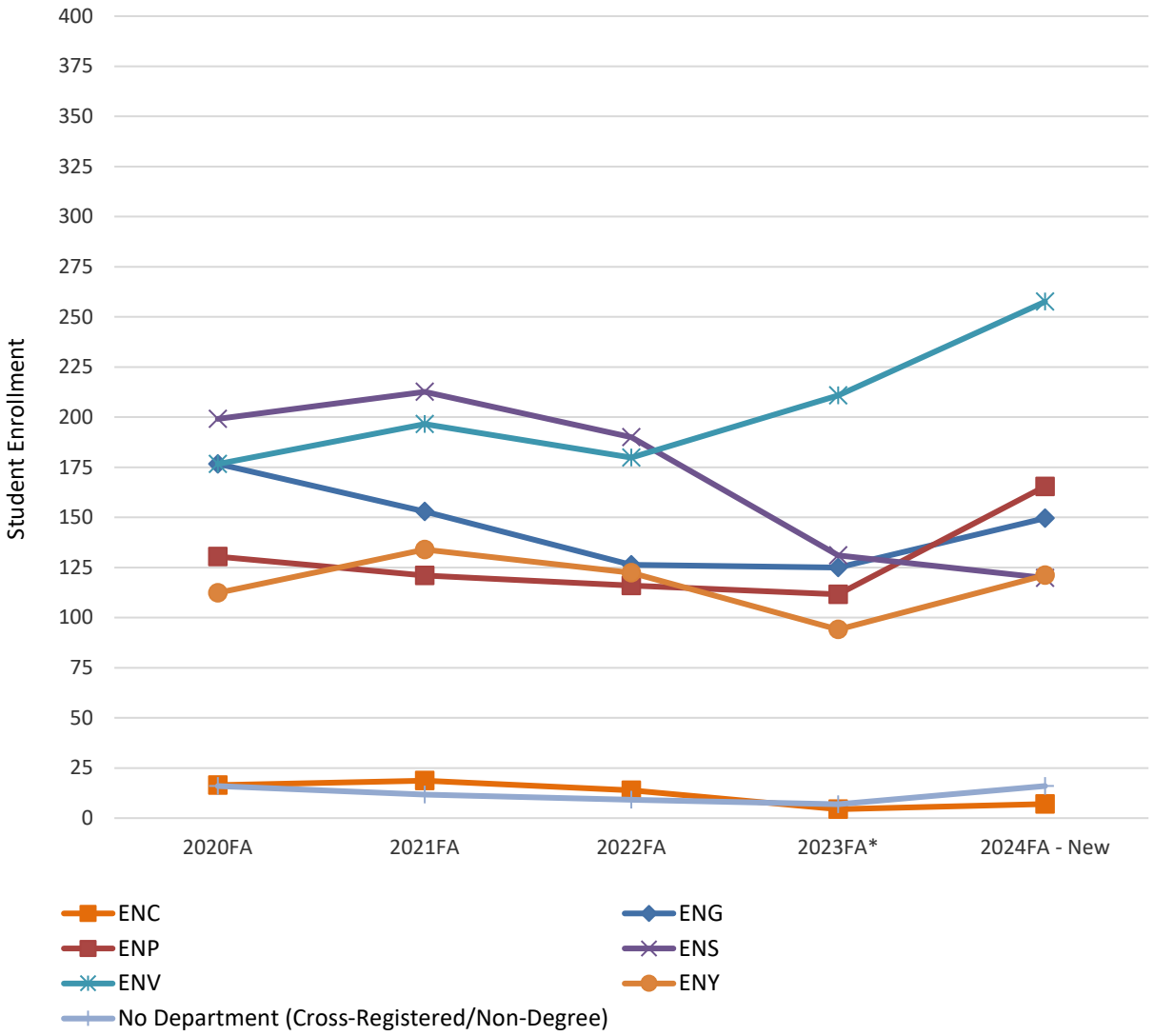
Student FTE: The full-time equivalent number of enrolled students. *Student FTE* is calculated by summing the total number of *Full-Time Students* plus the total number of *Part-Time Student Credit Hours* divided by 9. Prior to Fall 2024, *Student FTE* was calculated by summing the total number of *Full-Time Students* plus the total number of *Part-Time Student Credit Hours* divided by either 12 (for master's, certificate, or non-degree students) or 9 (for doctoral students).

For longitudinal trend purposes, total Student FTEs for fall 2024 are provided using both the historic formula as well as the new formula.

Total Student FTEs

	2020FA	2021FA	2022FA	2023FA	*2024FA - Historical*	2024FA - New
Student FTEs	819	833	740	684	*773*	826

Department



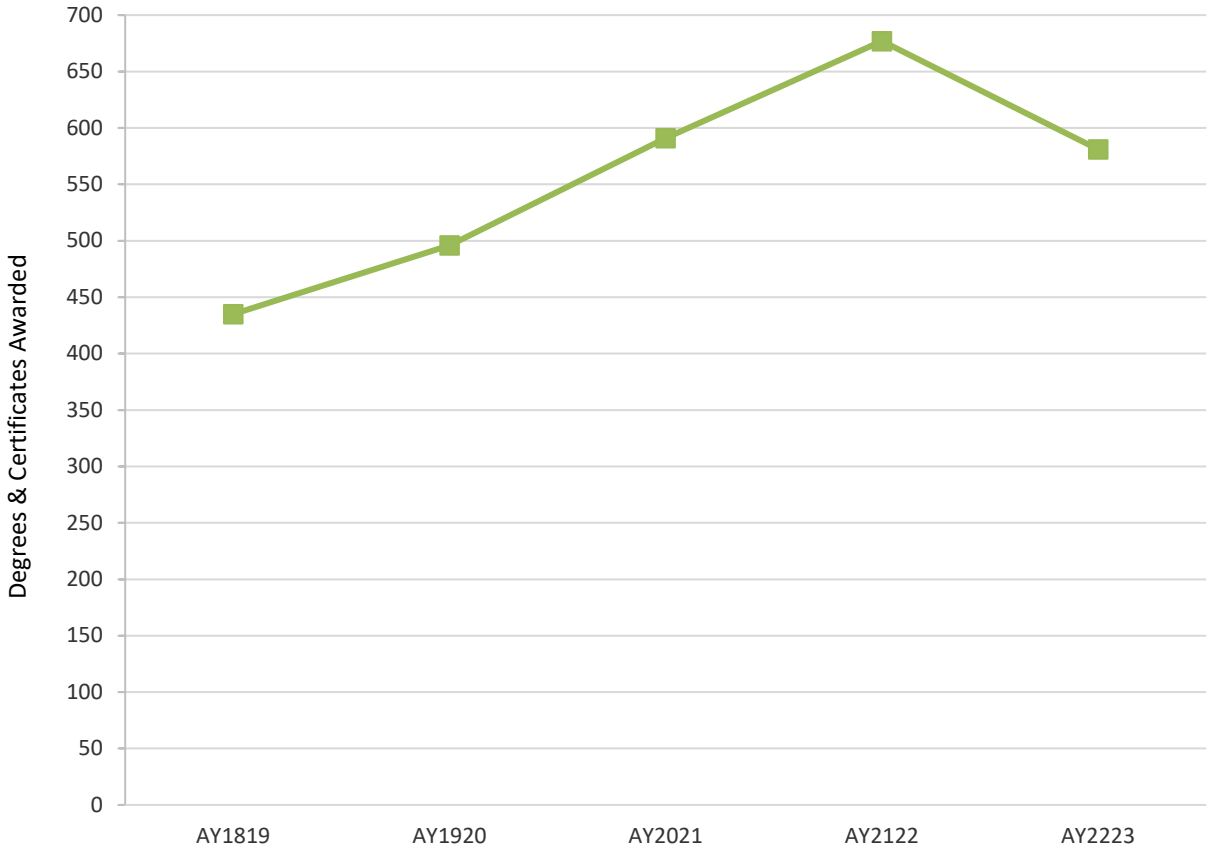
	2020FA	2021FA	2022FA	2023FA*	*2024FA - Historical*	2024FA - New
(ENC) Mathematics and Statistics	16	19	14	4	*7*	7
(ENG) Electrical and Computer Engineering	177	153	126	125	*147*	150
(ENP) Engineering Physics	130	121	116	112	*147*	165
(ENS) Operational Sciences	199	213	190	131	*118*	120
(ENV) Systems Engineering and Management	177	197	180	211	*234*	258
(ENY) Aeronautics & Astronautics	112	134	122	94	*118*	121
No Dept. (Cross-Registered/Non-Degree)	16	12	9	7	*12*	16

* Beginning in Fall 2023, the Graduate Certificate in Data Analytics moved from ENS to ENV.

Degrees and Certificates Awarded

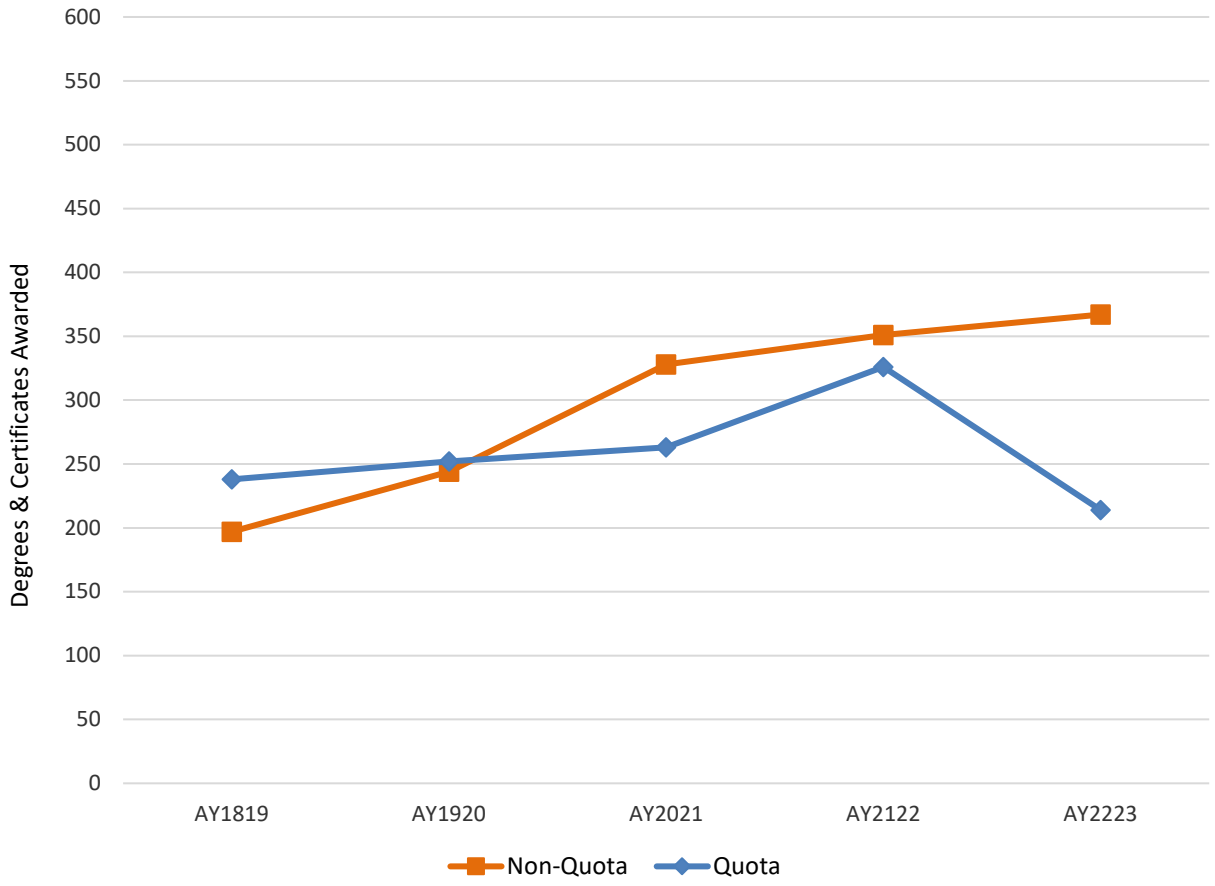
Degrees and Certificates Awarded: The number of certificates, master's degrees, or PhDs awarded to AFIT-EN students during the full academic year (October – September). If a student received more than one degree/certificate (e.g., both a certificate and a PhD), each degree/certificate will be counted.

Total Degrees and Certificates Awarded



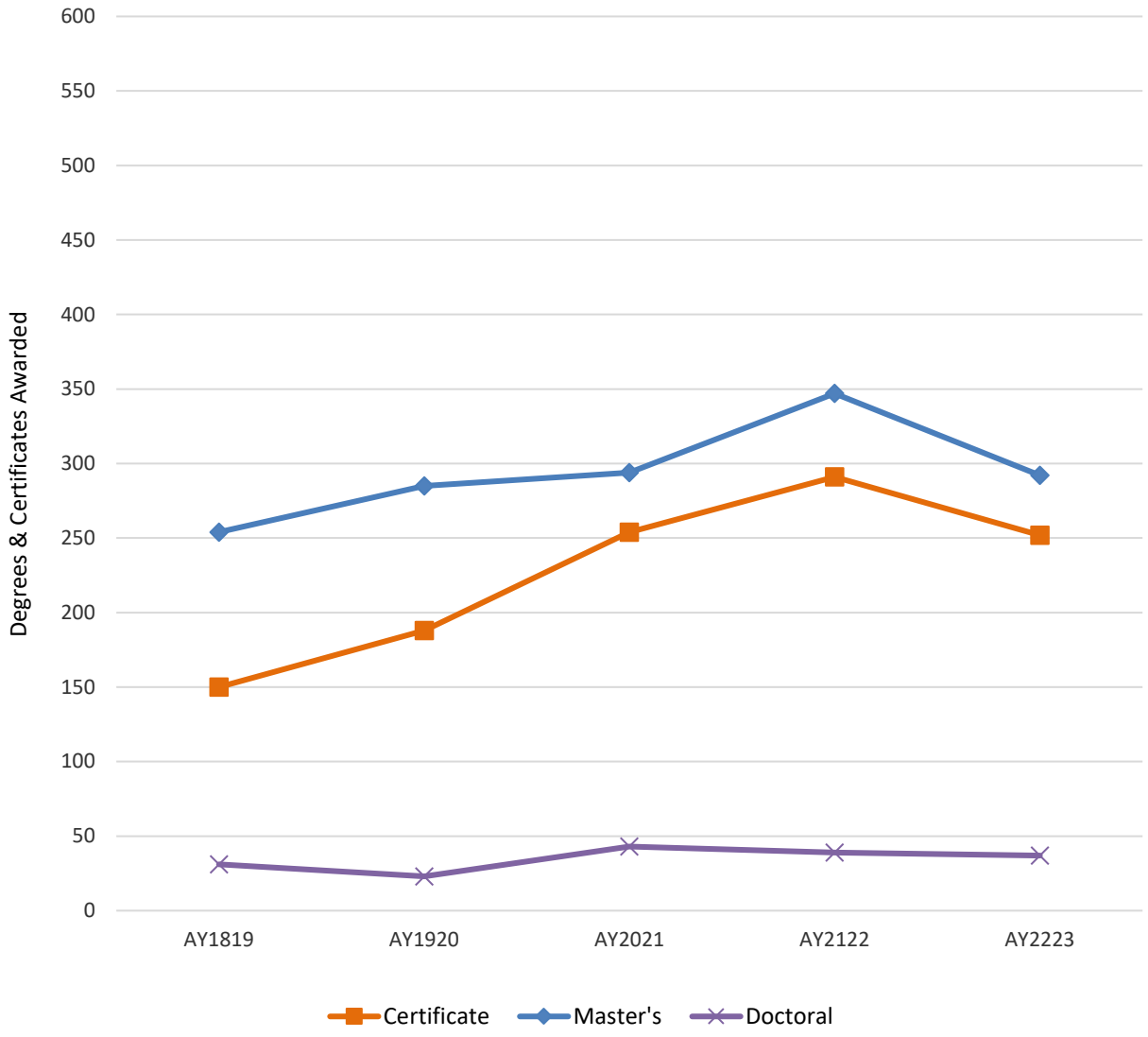
	AY1819	AY1920	AY2021	AY2122	AY2223
Degrees & Certificates Awarded	435	496	591	677	581

Quota Status



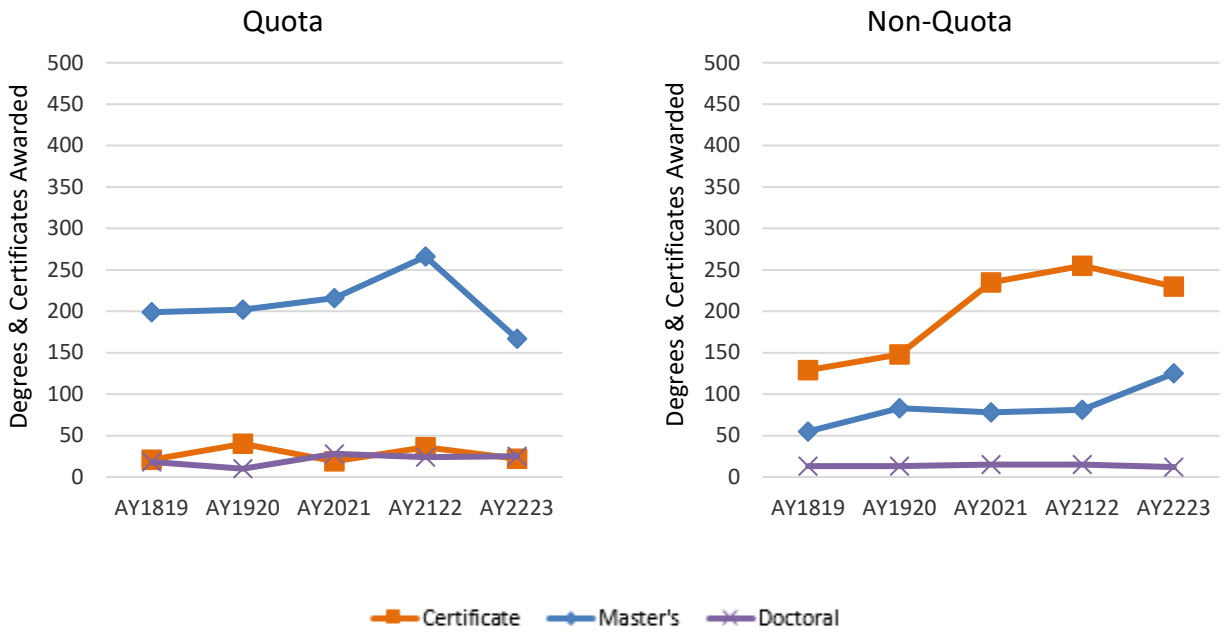
	AY1819	AY1920	AY2021	AY2122	AY2223
Non-Quota	197	244	328	351	367
Quota	238	252	263	326	214

Degree Level



	AY1819	AY1920	AY2021	AY2122	AY2223
Certificate	150	188	254	291	252
Master's	254	285	294	347	292
Doctoral	31	23	43	39	37

Degree Level by Quota Status



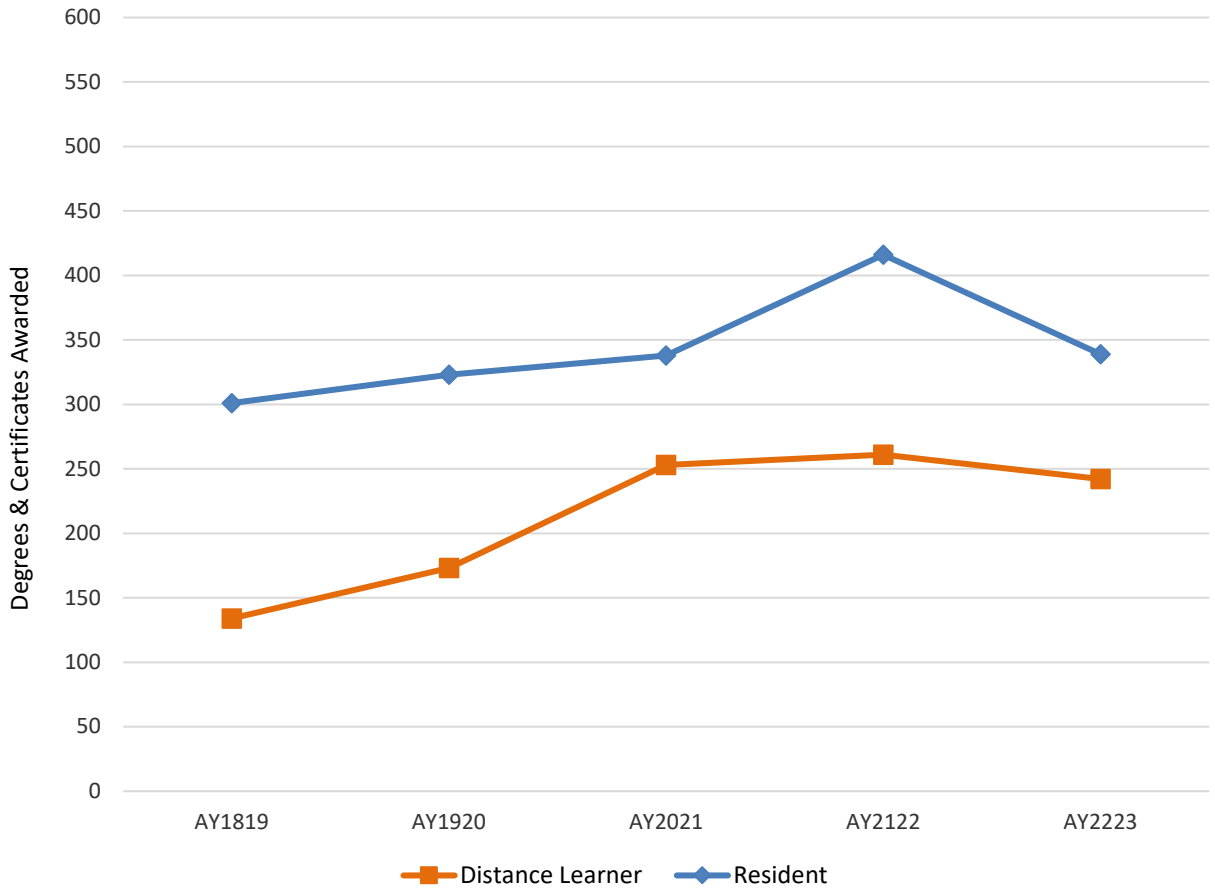
Quota

	AY1819	AY1920	AY2021	AY2122	AY2223
Certificate	21	40	19	36	22
Master's	199	202	216	266	167
Doctoral	18	10	28	24	25

Non-Quota

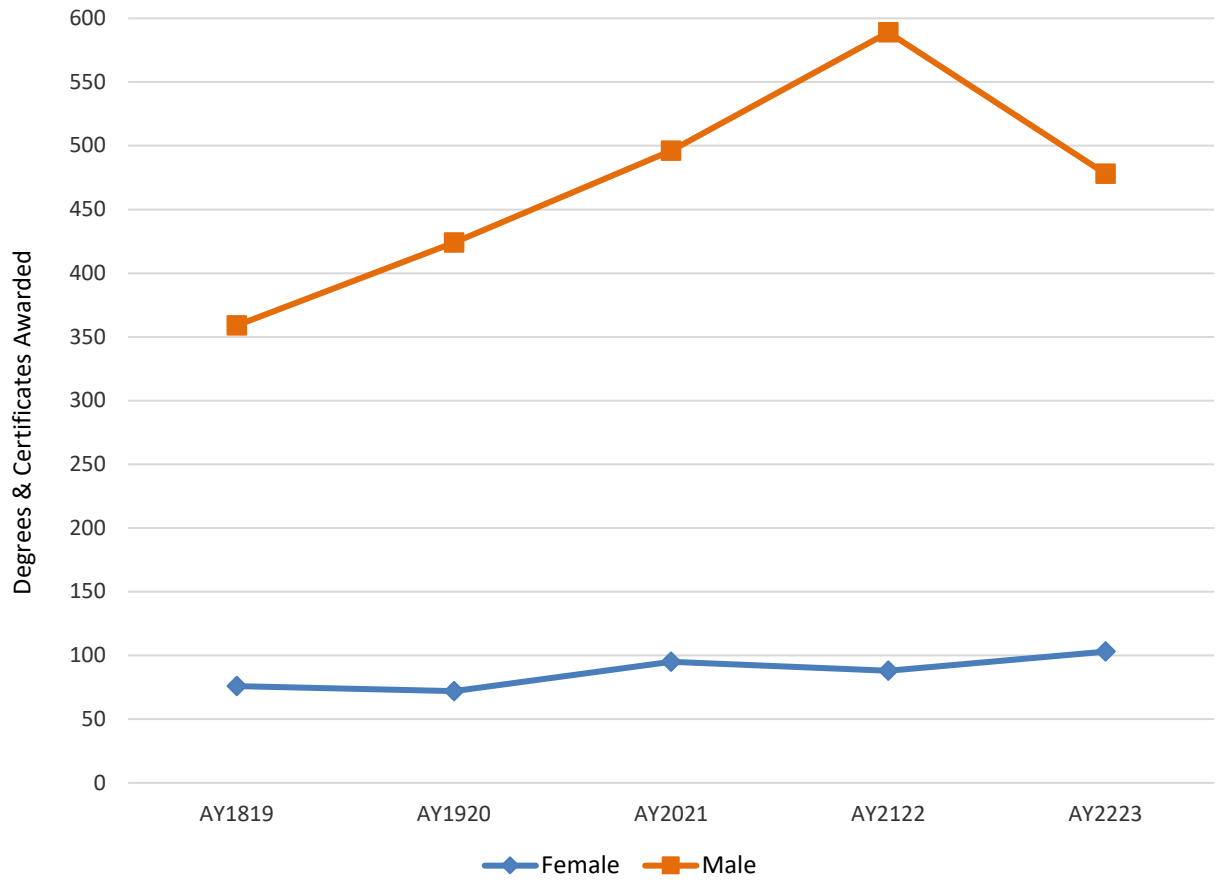
	AY1819	AY1920	AY2021	AY2122	AY2223
Certificate	129	148	235	255	230
Master's	55	83	78	81	125
Doctoral	13	13	15	15	12

Resident/Distance Learner Status



	AY1819	AY1920	AY2021	AY2122	AY2223
Distance Learner	134	173	253	261	242
Resident	301	323	338	416	339

Gender

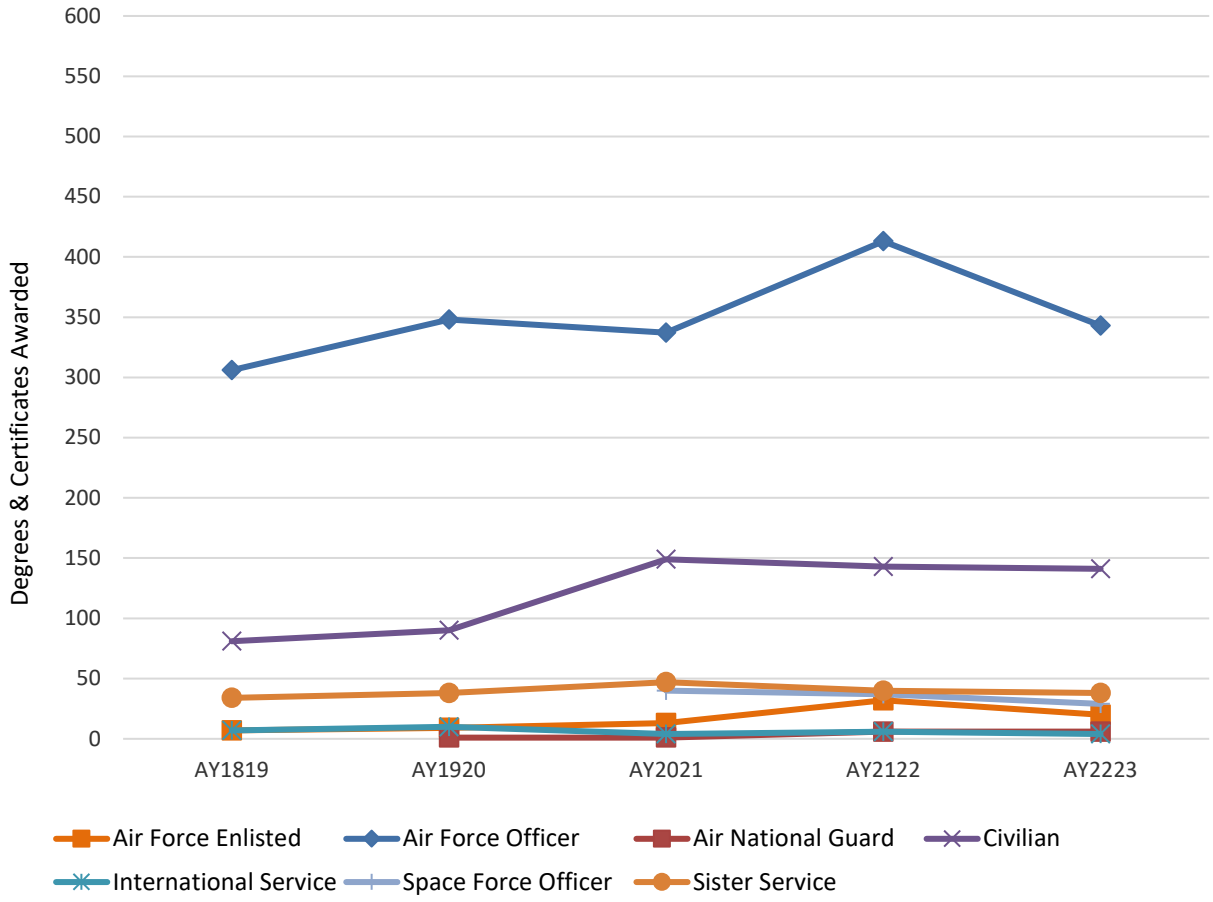


	AY1819	AY1920	AY2021	AY2122	AY2223
Female	76	72	95	88	103
Male	359	424	496	589	478

International Students by Country

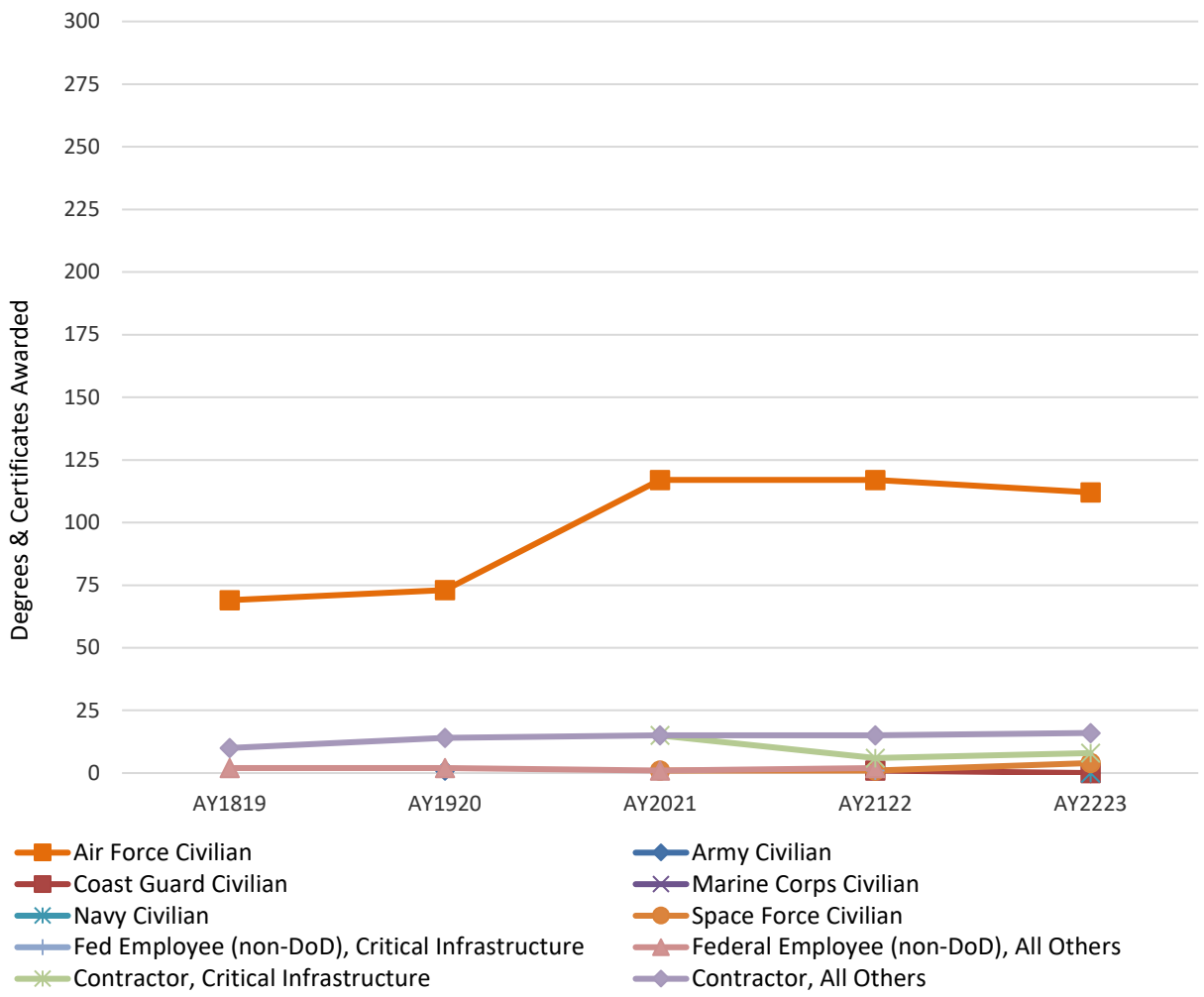
	AY1819	AY1920	AY2021	AY2122	AY2223
Australia	2	2	2		1
Bahrain		2			
Brazil	1	1			
Israel					1
Korea (South)				1	
Pakistan				1	
Saudi Arabia	4	5	1	3	2
Singapore				1	
TURKEY			1		

Service Branch or Civilian Status



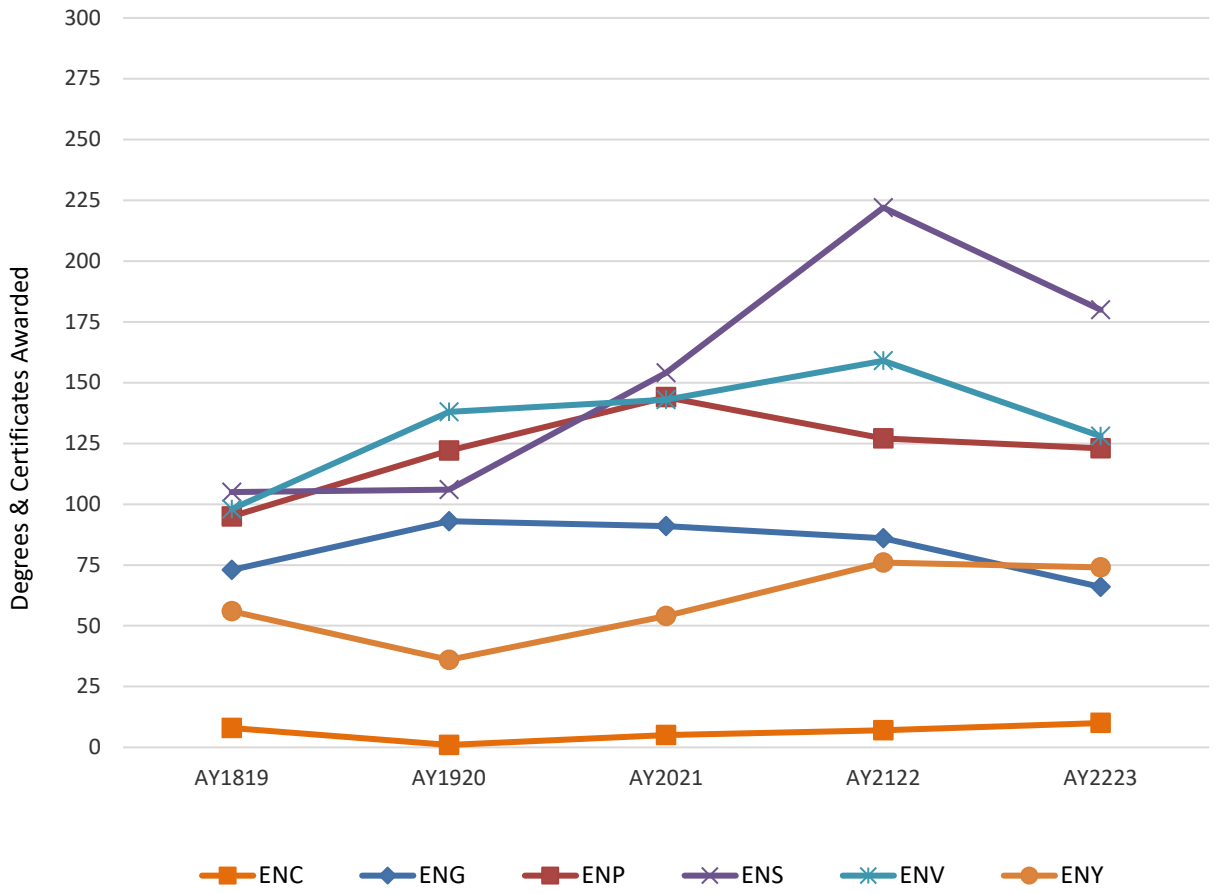
	AY1819	AY1920	AY2021	AY2122	AY2223
Air Force Enlisted	7	9	13	32	20
Air Force Officer	306	348	337	413	343
Air National Guard	0	1	1	6	6
Civilian	81	90	149	143	141
International Service	7	10	4	6	4
Space Force Officer	0	0	40	37	29
Sister Service	34	38	47	40	38
Army	31	32	38	35	32
Coast Guard	0	0	2	0	0
Marine Corps	2	5	7	5	6
Navy	1	1	0	0	0

Civilian Type - Detailed



	AY1819	AY1920	AY2021	AY2122	AY2223
Air Force Civilian	69	73	117	117	112
Space Force Civilian			1	1	4
Sister Service Civilian*					1
Army Civilian		1			NA
Coast Guard Civilian				1	NA
Fed Employee (non-DoD), Critical Infrastructure				1	
Federal Employee (non-DoD), All Others	2	2	1	2	
Contractor, Critical Infrastructure			15	6	8
Contractor, All Others	10	14	15	15	16
Civilian, Other					

Department



	AY1819	AY1920	AY2021	AY2122	AY2223
(ENC) Mathematics and Statistics	8	1	5	7	10
(ENG) Electrical and Computer Engineering	73	93	91	86	66
(ENP) Engineering Physics	95	122	144	127	123
(ENS) Operational Sciences	105	106	154	222	180
(ENV) Systems Engineering and Management	98	138	143	159	128
(ENY) Aeronautics & Astronautics	56	36	54	76	74

Program

Certificates Awarded

		AY1819	AY1920	AY2021	AY2122	AY2223
ENG	Certificate in Low Observables Radio Frequency Engineering				2	2
	Graduate Certificate in Autonomy	7	12	10	6	2
	Graduate Certificate in Cyber - Physical Sensing and Artificial Intelligence					1
	Graduate Certificate in Cyber - Physical Sensing and Cyber Attacks				1	4
ENP	Certificate in Nuclear Weapons, Effects, Policy & Proliferation	63	83	71	72	54
	Graduate Certificate in Countering Weapons of Mass Destruction			30	13	30
	Graduate Certificate in Nuclear Weapons Technologies				2	2
ENS	Cost Capability Analysis Certificate	4	4	1		2
	Graduate Certificate in Data Analytics			59	89	58
	Graduate Certificate in Data Science	8	10		16	1
	Graduate Certificate in Modeling, Simulation, & Analysis			1	2	8
	Graduate Certificate in Operations Research			4	16	20
	Graduate Certificate in Test and Evaluation	24	26	24	18	19
ENV	Graduate Certificate in Data Analytics					
	Graduate Certificate for Human Systems Engineering		1	3	5	
	Graduate Certificate in Systems Engineering	42	51	49	47	41

		AY1819	AY1920	AY2021	AY2122	AY2223
ENY	Graduate Certificate in Space Systems	2	1	2	2	4
	Graduate Certificate in Space Vehicle Design					4

Master's Degrees Awarded

		AY1819	AY1920	AY2021	AY2122	AY2223
ENC	Master of Science in Applied Mathematics	4	1	2	2	5
ENG	Master of Cyber Systems				6	7
	Master of Science in Computer Engineering	6	7	4	11	6
	Master of Science in Computer Science	8	8	22	8	12
	Master of Science in Cyber Operations	12	17	9	9	4
	Master of Science in Electrical Engineering	34	38	38	33	23
ENP	Master of Science in Applied Physics	10	13	17	8	6
	Master of Science in Atmospheric Sciences	5	8	4	2	4
	Master of Science in Materials Science		2	1		1
	Master of Science in Nuclear Engineering	4	13	8	11	15
	Master of Science in Optical Sciences & Engineering	1	1	2	1	
	Master of Science in Scientific and Technical Intelligence				8	2
ENS	Master of Operational Logistics					
	Master of Operations Analysis				7	8
	Master of Science in Data Science					7
	Master of Science in Logistics	5	6	5	4	1
	Master of Science in Logistics & Supply Chain Management	14	12	8	12	8
	Master of Science in Operations Management	16	16	16	16	14
	Master of Science in Operations Research	29	29	28	37	25

		AY1819	AY1920	AY2021	AY2122	AY2223
ENV	Master of Engineering in Applied Systems Engineering	12	20	20	27	24
	Master of Science in Acquisition and Program Management				7	10
	Master of Science in Cost Analysis	10	13	12	8	11
	Master of Science in Engineering Management	22	23	27	26	21
	Master of Science in Environmental Engineering & Science	3	5	5	4	5
	Master of Science in Industrial Hygiene	1	5		4	3
	Master of Science in Systems Engineering	8	16	25	27	12

ENY	Master of Engineering in Aeronautical Engineering				18	11
	Master of Engineering in Space Systems				6	1
	Master of Science in Aeronautical Engineering	31	23	17	21	24
	Master of Science in Astronautical Engineering	14	6	12	12	13
	Master of Science in Materials Science	4	1	3	2	2
	Master of Science in Space Systems	1	2	9	10	7

Doctorates Awarded

		AY1819	AY1920	AY2021	AY2122	AY2223
ENC	Doctor of Philosophy in Applied Mathematics	4		3	5	5
ENG	Doctor of Philosophy in Computer Engineering		1			
	Doctor of Philosophy in Computer Science	2	1	3	3	2
	Doctor of Philosophy in Electrical Engineering	4	9	5	7	3
ENP	Doctor of Philosophy in Applied Physics	7		6	3	8
	Doctor of Philosophy in Materials Science					1
	Doctor of Philosophy in Nuclear Engineering	5	2	3	6	
	Doctor of Philosophy in Optical Sciences & Engineering			2	1	
ENS	Doctor of Philosophy in Logistics	1	2	2		1
	Doctor of Philosophy in Operations Research	4	1	6	5	8
ENV	Doctor of Philosophy in Systems Engineering		4	2	4	1
ENY	Doctor of Philosophy in Aeronautical Engineering	2	3	6	3	2
	Doctor of Philosophy in Astronautical Engineering	1		4	1	5
	Doctor of Philosophy in Materials Science	1				
	Doctor of Philosophy in Space Systems			1	1	1

Faculty Demographics

The Faculty Demographics section of the Fact Book provides information about AFIT-EN faculty based on faculty members' primary roles as a faculty member (e.g., Administrator, Professor, Research Faculty). Unless otherwise specified, the Faculty Demographics section includes all personnel with a faculty appointment in AFIT-EN, with the exception of *Adjunct Faculty – Non-Teaching*. Abbreviated descriptions of the different Faculty Types are provided below. For full definitions, please see the Glossary.

Adjunct Faculty: Faculty members whose official faculty appointment to AFIT-EN is an adjunct appointment. *Adjunct Faculty - Non-Teaching* are not teaching during the term specified but may be serving on thesis or dissertation committees. *Adjunct Faculty – Teaching* are teaching a course during the term specified.

Administrator: Personnel who hold a faculty appointment in AFIT-EN (excluding those who hold an *Adjunct* appointment) and whose primary role is in an administrative position (e.g., Dean, Chief Academic Officer).

Assistant/Associate/Full Professor, Non-Tenure-Track (Non-T/TT): Personnel who hold a non-tenure-track faculty appointment as an *Assistant, Associate*, or *Full Professor* in AFIT-EN (e.g., "Non-Tenure Track Assistant Professor").

Assistant/Associate/Full Professor, Tenured/Tenure-Track (T/TT): Personnel who hold a tenure-track faculty appointment as an *Assistant, Associate*, or *Full Professor* in AFIT-EN, and whose primary role in EN is as a professor, rather than as an *Administrator*, *Center Director*, *Department Head*, *Research Faculty* member.

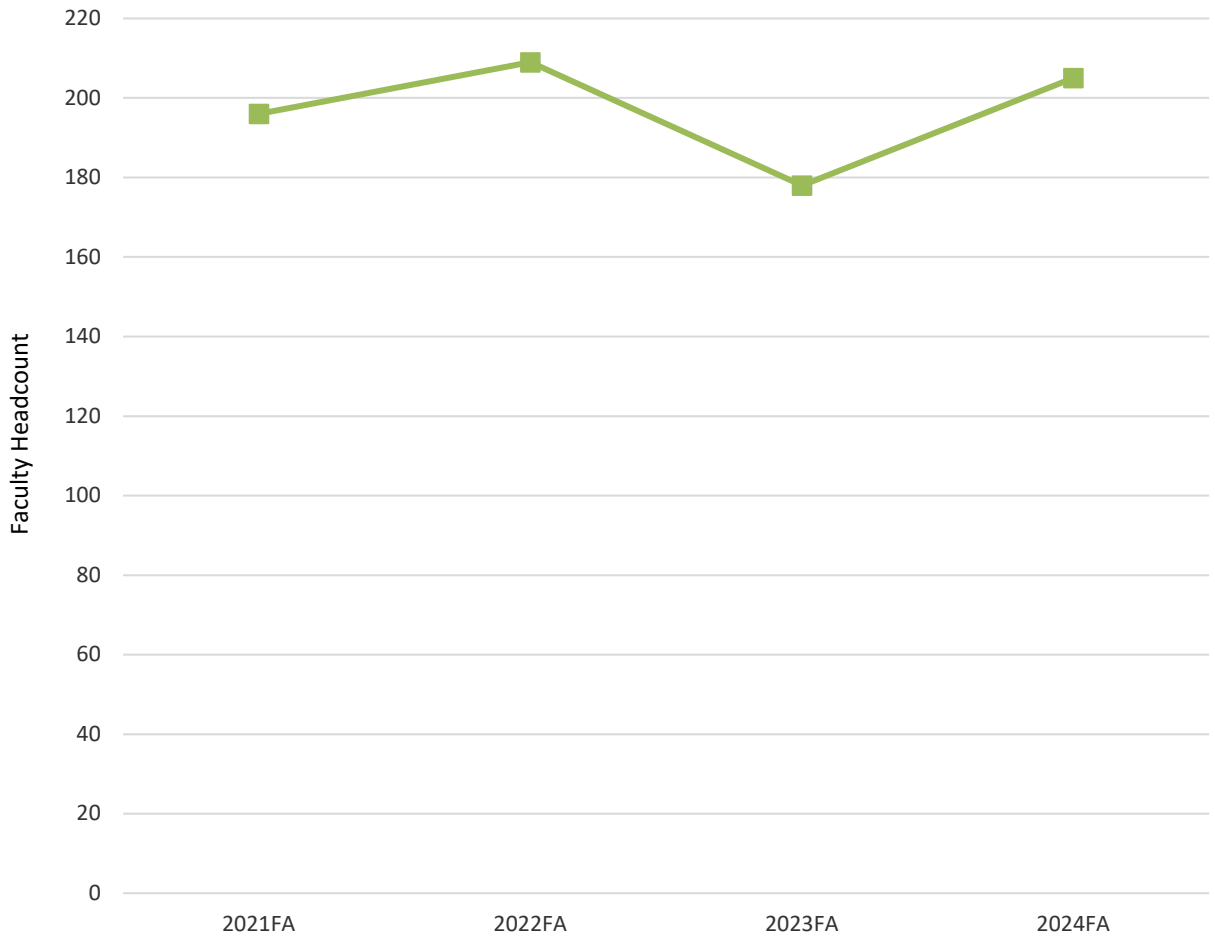
Center Director: Personnel who hold a faculty appointment in AFIT-EN (excluding those who hold an *Adjunct* appointment) and whose primary role is in as a Center Director.

Department Head: Personnel who hold a faculty appointment in AFIT-EN (excluding those who hold an *Adjunct* appointment) and whose primary role is as a Department Head.

Instructor: Personnel who hold a faculty appointment as an *Instructor* in AFIT-EN. This appointment is typically given to newly-appointed, permanent faculty who have not yet finished their PhD. Once the PhD is completed, *Instructors* are typically given a new appointment as a *Tenure-Track Assistant Professor*.

Research Faculty: Personnel who hold a faculty appointment as an Assistant, Associate, or Full Research Professor in AFIT-EN (e.g., "Research Assistant Professor"). These appointments are typically non-tenure track positions and include primarily research duties.

Total Faculty Headcount



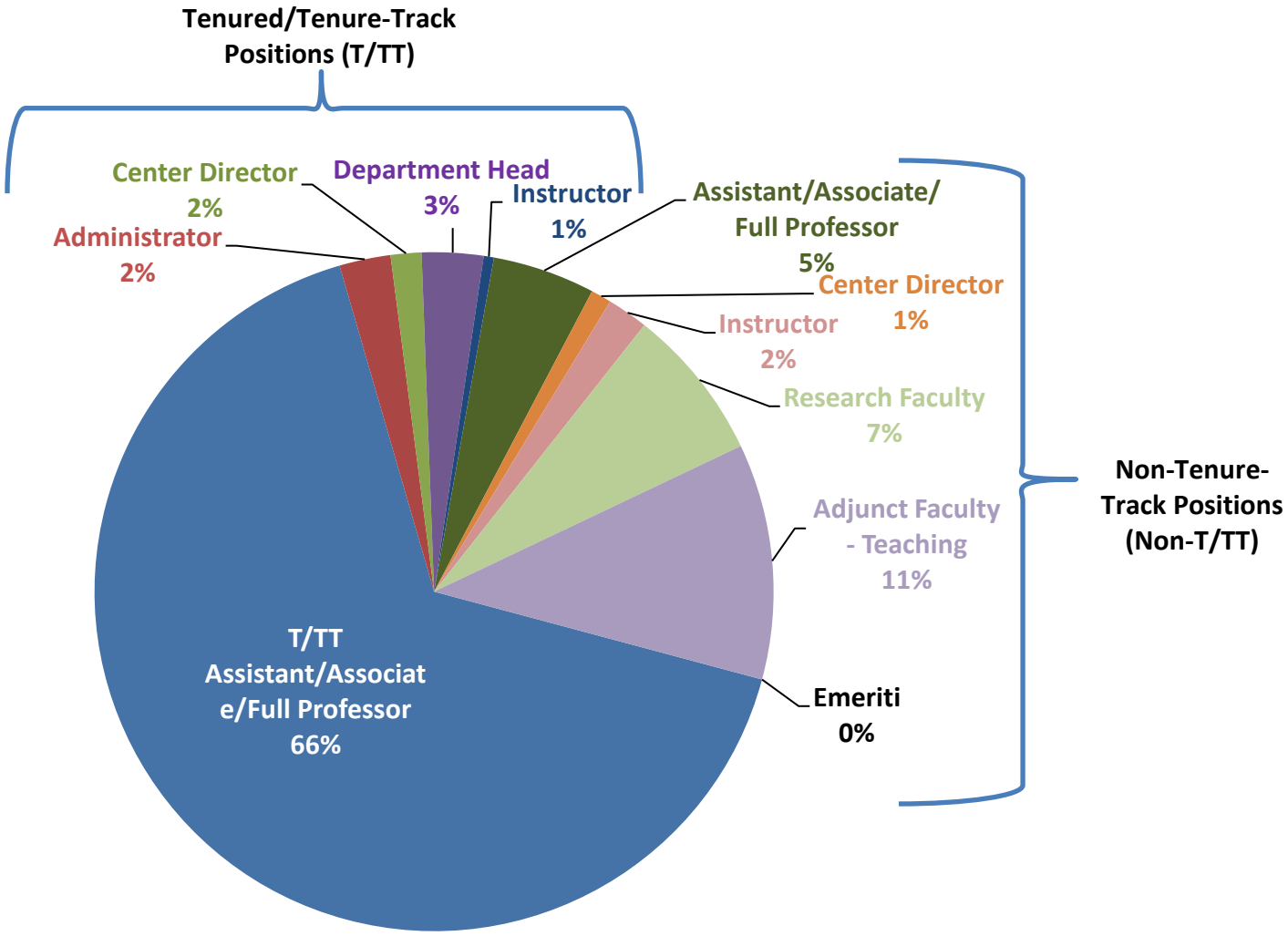
	2021FA	2022FA	2023FA	2024FA
Total Faculty Headcount	**196**	**209**	**178**	**205**

Faculty Position Type

Faculty Position Type: Headcount

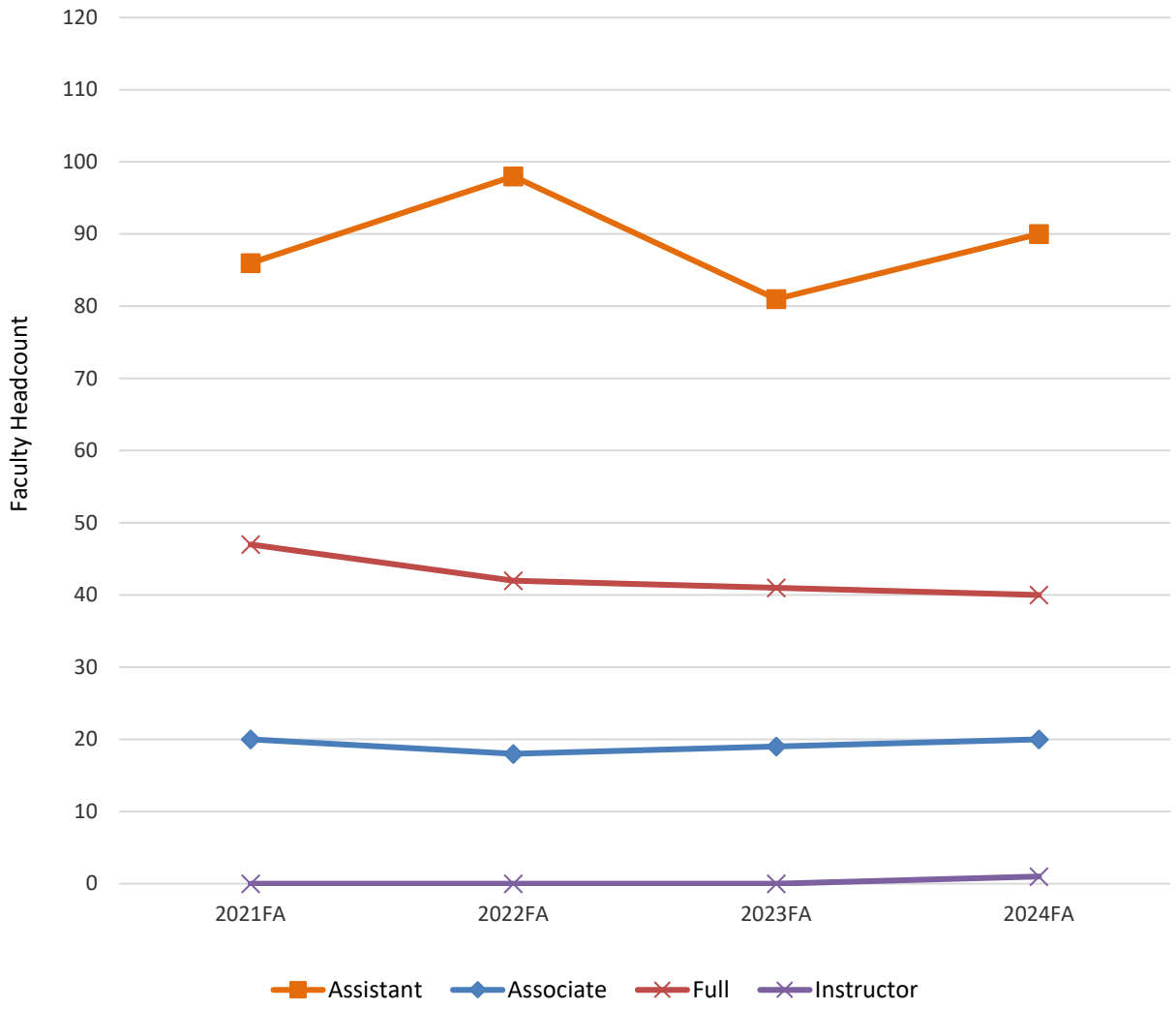
	2021FA	2022FA	2023FA	2024FA
Tenured/Tenure-Track Positions (T/TT), Total	**153**	**158**	**141**	**151**
Assistant/Associate/Full Professor	138	142	126	136
Administrator	7	7	6	5
Center Director	2	3	3	3
Department Head	6	6	6	6
Instructor	0	0	0	1
Non-Tenure-Track Positions (Non-T/TT), Total	**43**	**51**	**37**	**54**
Assistant/Associate/Full Professor	12	15	6	10
Center Director	1	1	1	2
Instructor	1	3	5	4
Research Faculty	11	14	14	15
Adjunct Faculty - Teaching	18	17	11	23
Emeriti	0	1	0	0

Faculty Position Type: Percentages (Fall 2024)



Academic Rank (for Tenured/Tenure-Track Faculty)

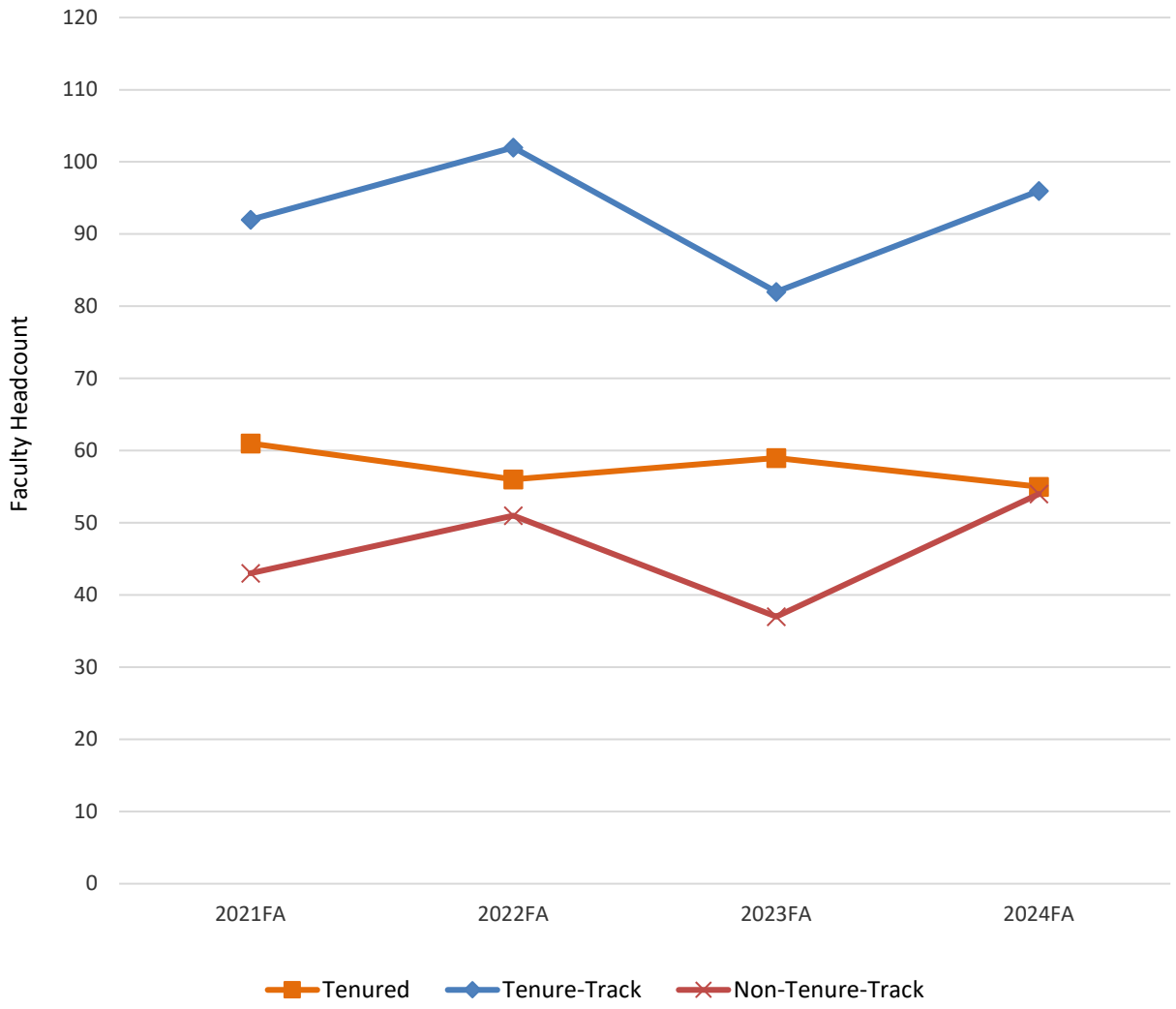
Tenured/Tenure-Track Faculty by Academic Rank: Headcount



	2021FA	2022FA	2023FA	2024FA
Assistant	86	98	81	90
Associate	20	18	19	20
Full	47	42	41	40
Instructor	0	0	0	1

Tenure Status

Tenure Status: Headcount



	2021FA	2022FA	2023FA	2024FA
Tenured	61	56	59	55
Tenure-Track	92	102	82	96
Non-Tenure-Track	43	51	37	54

Tenure Status: Headcount by Department

ENC: Department of Mathematics and Statistics

	2021FA	2022FA	2023FA	2024FA
Tenured	8	7	6	6
Tenure-Track	11	12	7	9
Non-Tenure-Track	0	2	3	2

ENG: Department of Electrical and Computer Engineering

	2021FA	2022FA	2023FA	2024FA
Tenured	16	15	18	18
Tenure-Track	16	18	14	14
Non-Tenure-Track	12	12	6	9

ENP: Department of Engineering Physics

	2021FA	2022FA	2023FA	2024FA
Tenured	9	8	8	5
Tenure-Track	20	21	18	24
Non-Tenure-Track	9	14	13	16

ENS: Department of Operational Sciences

	2021FA	2022FA	2023FA	2024FA
Tenured	6	5	7	6
Tenure-Track	15	18	15	18
Non-Tenure-Track	12	7	5	6

ENV: Department of Systems Engineering and Management

	2021FA	2022FA	2023FA	2024FA
Tenured	9	9	9	9
Tenure-Track	16	17	15	17
Non-Tenure-Track	7	11	7	12

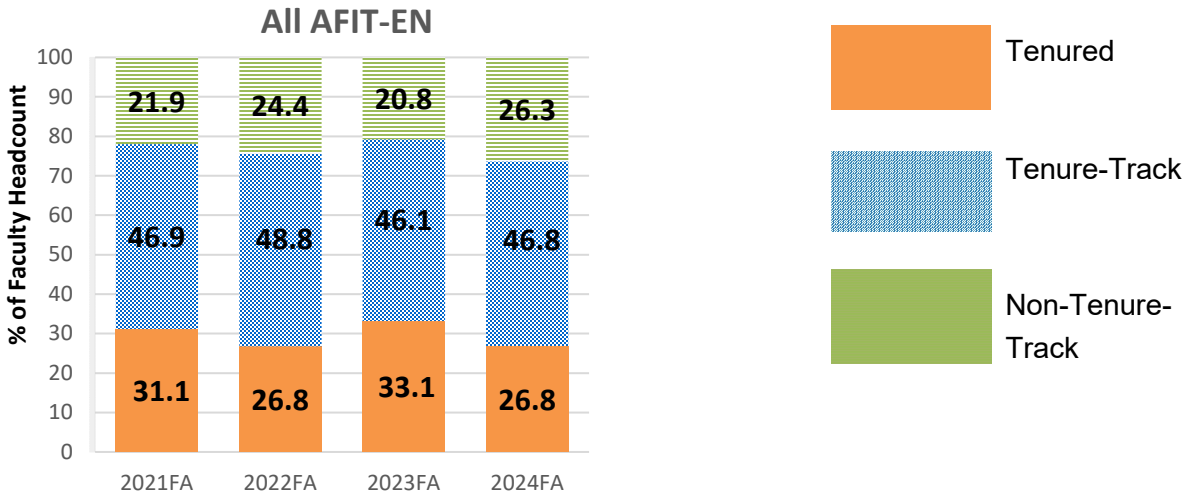
ENY: Department of Aeronautics and Astronautics

	2021FA	2022FA	2023FA	2024FA
Tenured	8	7	8	8
Tenure-Track	12	14	12	13
Non-Tenure-Track	3	5	2	8

Other Affiliation (e.g., EN, ENW)

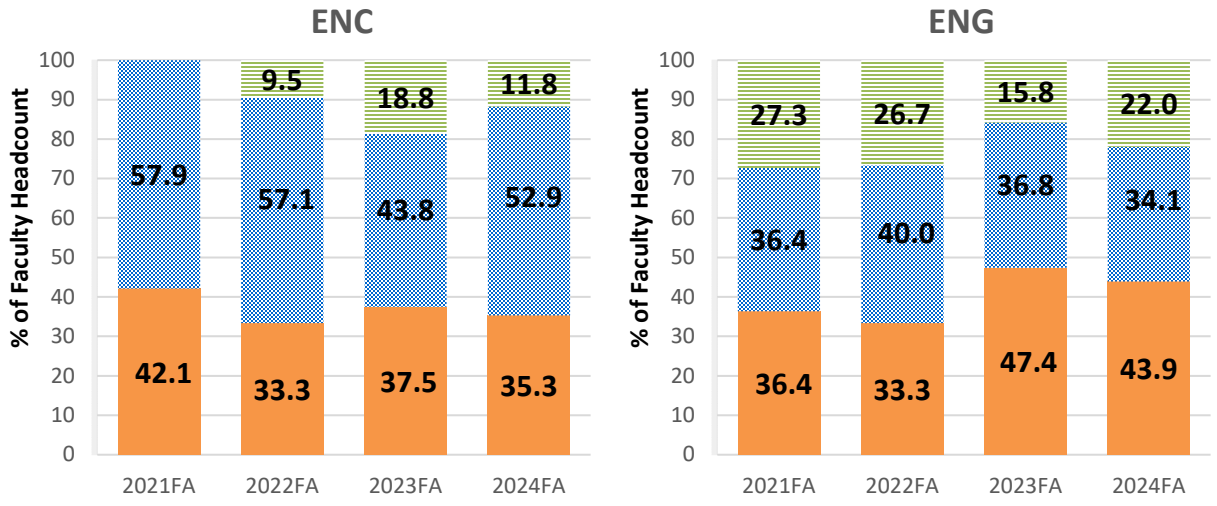
	2021FA	2022FA	2023FA	2024FA
Tenured	5	5	3	3
Tenure-Track	2	2	1	1
Non-Tenure-Track	0	0	1	1

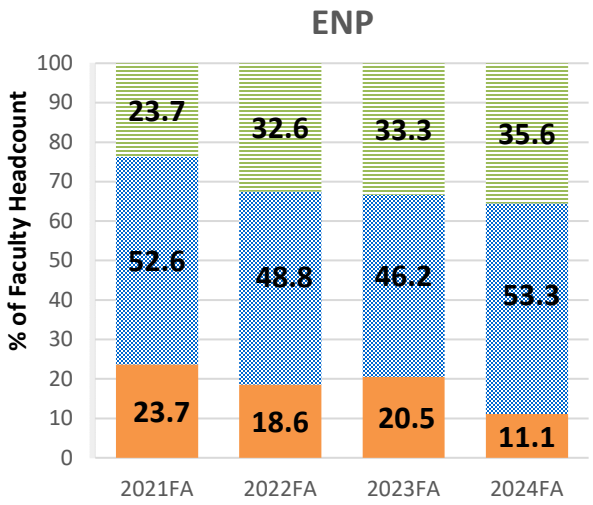
Tenure Status: Percentage of Headcount

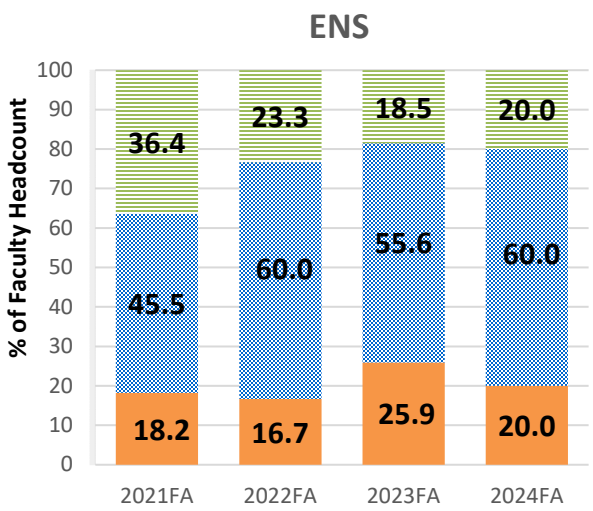


	2021FA	2022FA	2023FA	2024FA
Tenured	31.1	26.8	33.1	26.8
Tenure-Track	46.9	48.8	46.1	46.8
Non-Tenure-Track	21.9	24.4	20.8	26.3

Tenure Status: Percentage of Headcount by Department




ENP
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
23.7
52.6
23.7
32.6
48.8
18.6
33.3
46.2
20.5
35.6
53.3
11.1
2021FA
2022FA
2023FA
2024FA


ENS
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
36.4
45.5
18.2
23.3
60.0
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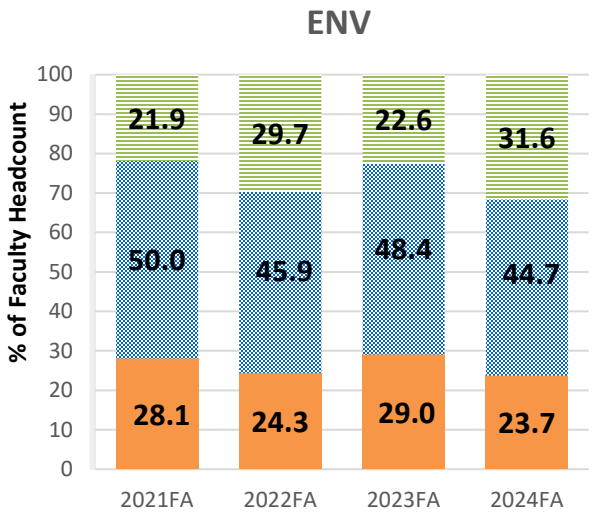
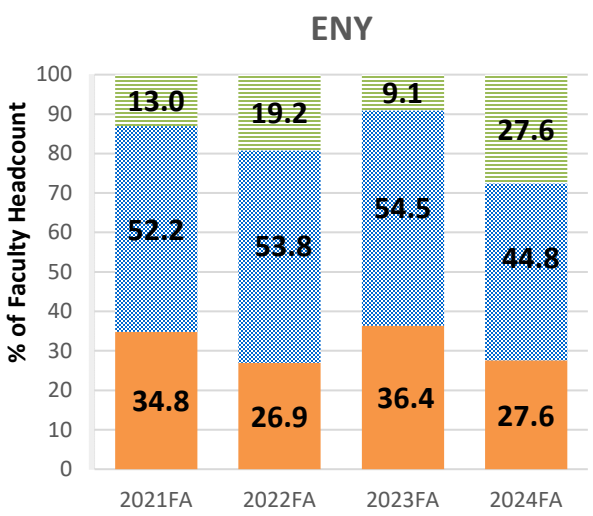
18.5
55.6
25.9
20.0
60.0
20.0
2021FA
2022FA
2023FA
2024FA


ENV
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
21.9
50.0
28.1
29.7
45.9
24.3
22.6
48.4
29.0
31.6
44.7
23.7
2021FA
2022FA
2023FA
2024FA


ENY
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
13.0
52.2
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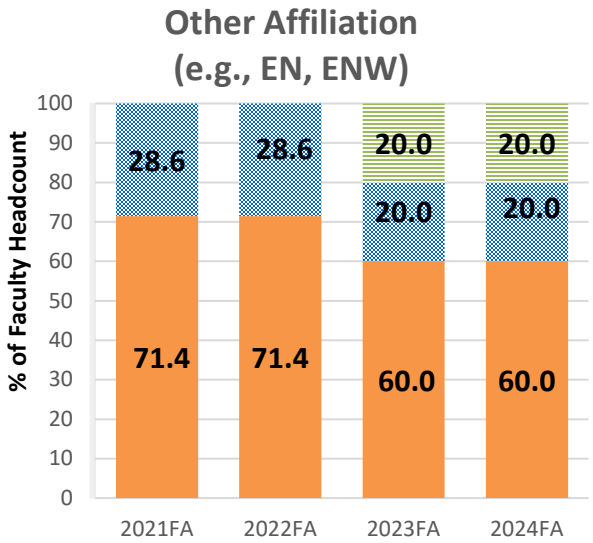
19.2
53.8
26.9
9.1
54.5
36.4
27.6
44.8
27.6
2021FA
2022FA
2023FA
2024FA


Other Affiliation
(e.g., EN, ENW)
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
28.6
71.4
28.6
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20.0
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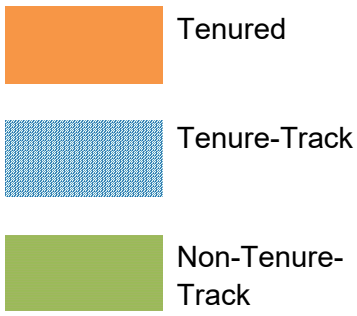
20.0
60.0
2021FA
2022FA
2023FA
2024FA

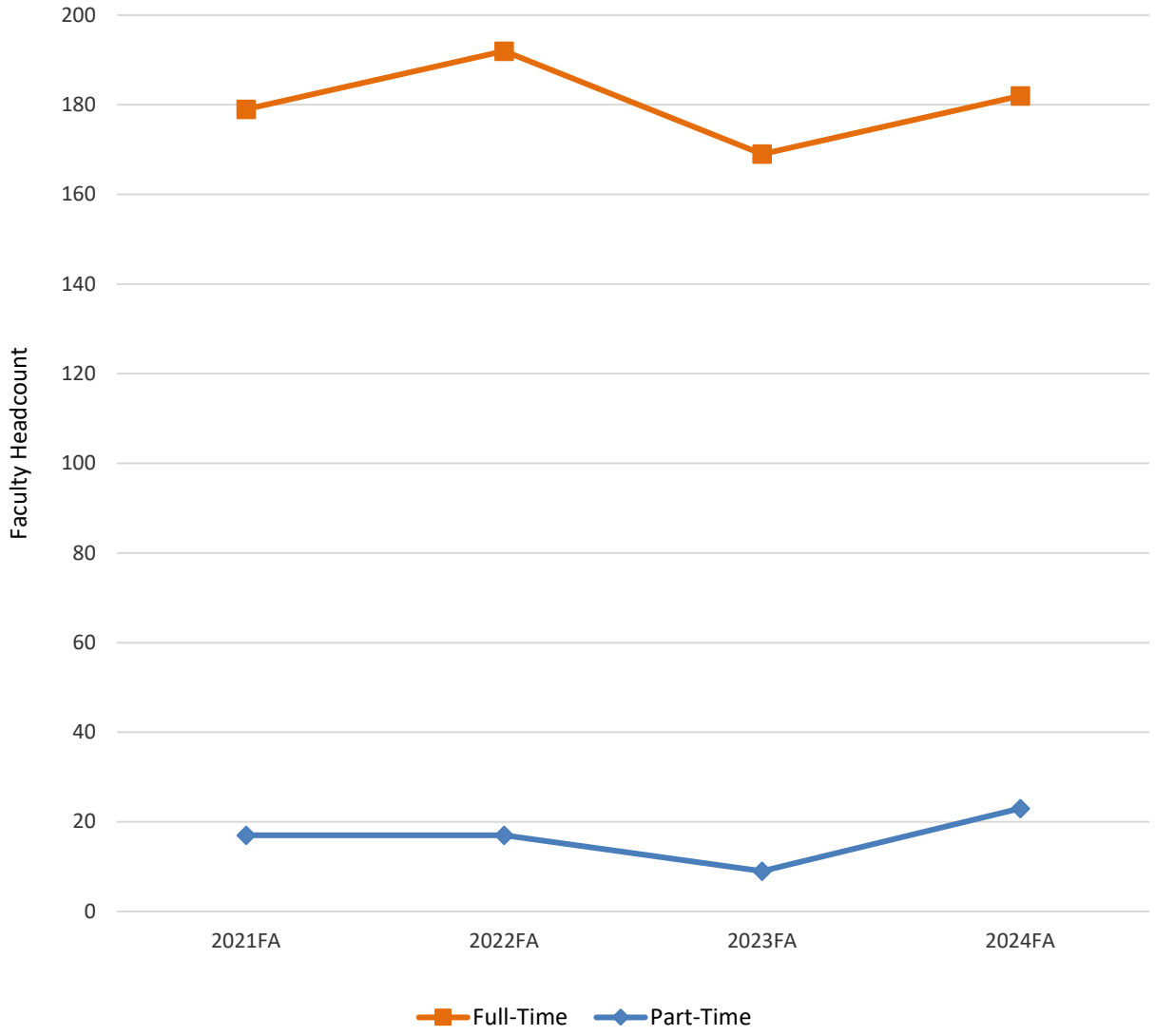

Tenured
Tenure-Track
Non-Tenure-Track

Full-Time/Part-Time Status

Full-Time Faculty: All faculty are classified as full-time, with the exception of Adjunct Faculty or faculty members identified as part-time by the Department Head, MSC, or ENW.

Part-Time Faculty: All Adjunct Faculty are classified as part-time, in addition to faculty members identified as part-time by the Department Head, MSC, or ENW. Very few faculty members in AFIT-EN are part-time.

Full-Time/Part-Time Status: Headcount



	2021FA	2022FA	2023FA	2024FA
Full-Time	179	192	169	182
Part-Time	17	17	9	23

Full-Time/Part-Time Status: Headcount by Department

ENC: Department of Mathematics and Statistics

	2021FA	2022FA	2023FA	2024FA
Full-Time	19	20	15	15
Part-Time	0	1	1	2

ENG: Department of Electrical and Computer Engineering

	2021FA	2022FA	2023FA	2024FA
Full-Time	40	41	37	38
Part-Time	4	4	1	3

ENP: Department of Engineering Physics

	2021FA	2022FA	2023FA	2024FA
Full-Time	38	41	37	41
Part-Time	0	2	2	4

ENS: Department of Operational Sciences

	2021FA	2022FA	2023FA	2024FA
Full-Time	23	25	24	26
Part-Time	10	5	3	4

ENV: Department of Systems Engineering and Management

	2021FA	2022FA	2023FA	2024FA
Full-Time	30	33	29	32
Part-Time	2	4	2	6

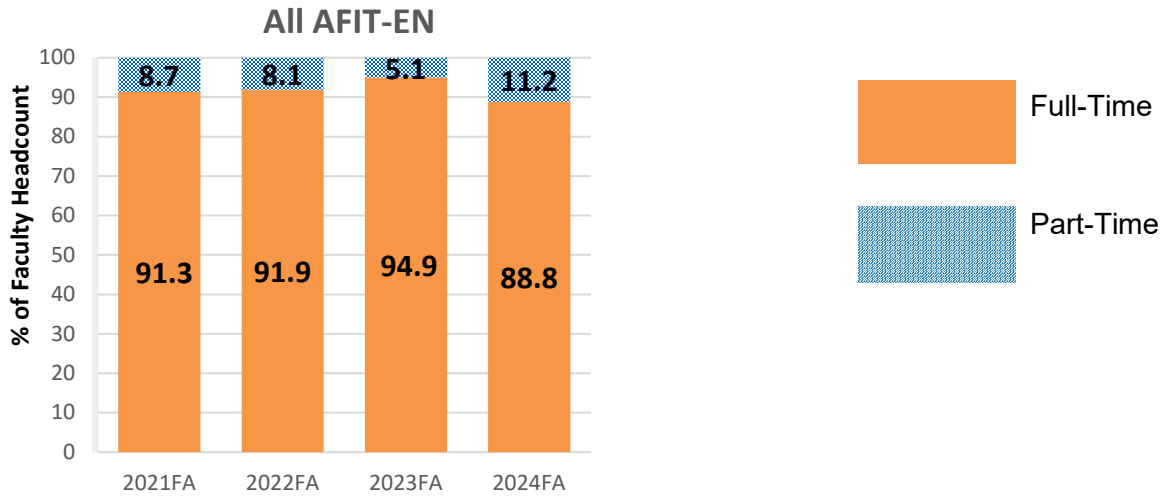
ENY: Department of Aeronautics and Astronautics

	2021FA	2022FA	2023FA	2024FA
Full-Time	22	25	22	25
Part-Time	1	1	0	4

Other Affiliation (e.g., EN, ENW)

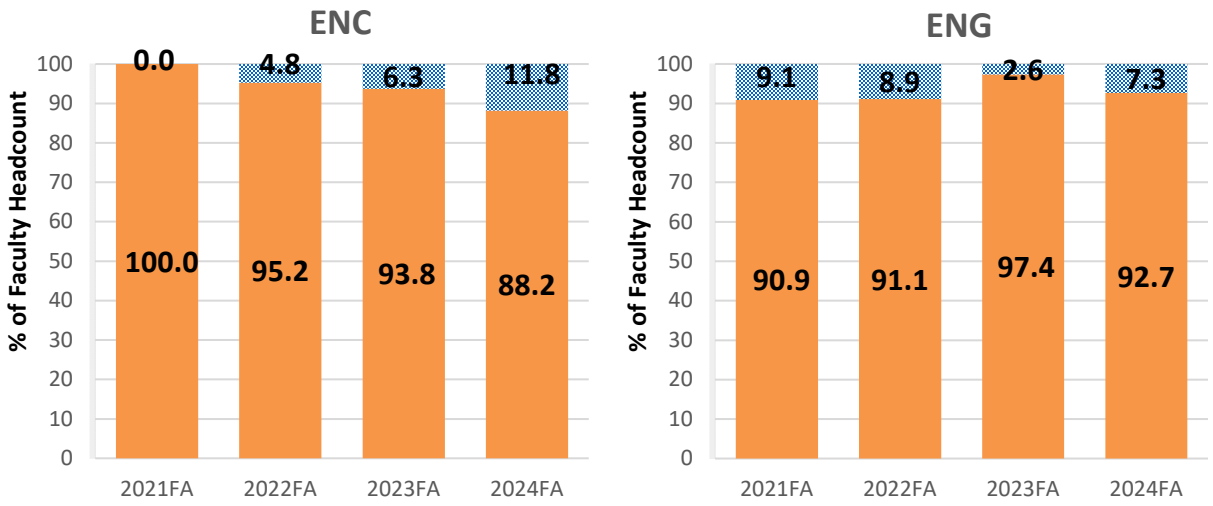
	2021FA	2022FA	2023FA	2024FA
Full-Time	7	7	5	5
Part-Time	0	0	0	0

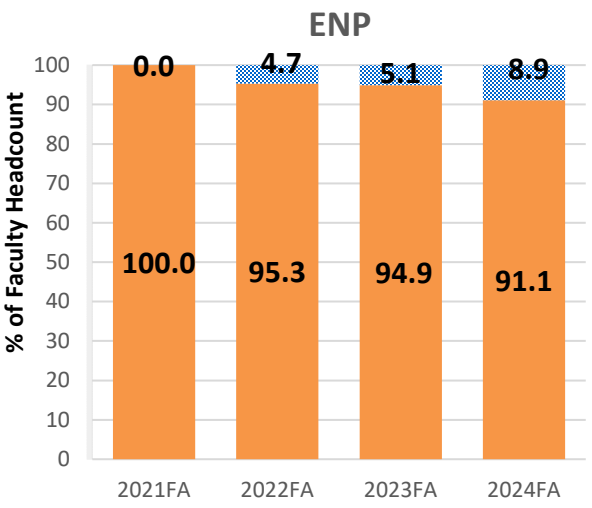
Full-Time/Part-Time Status: Percentage of Headcount

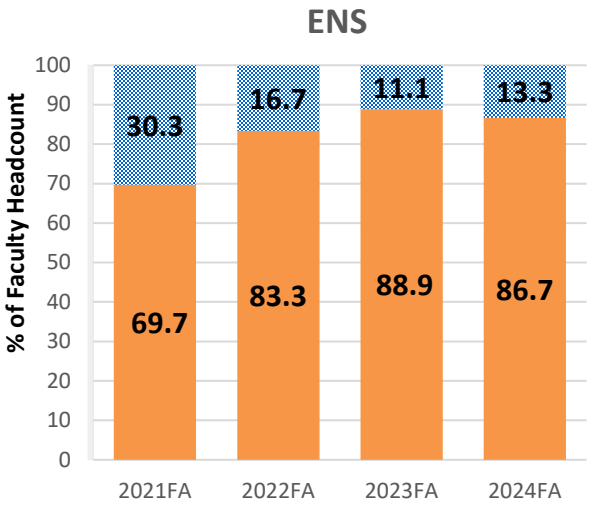


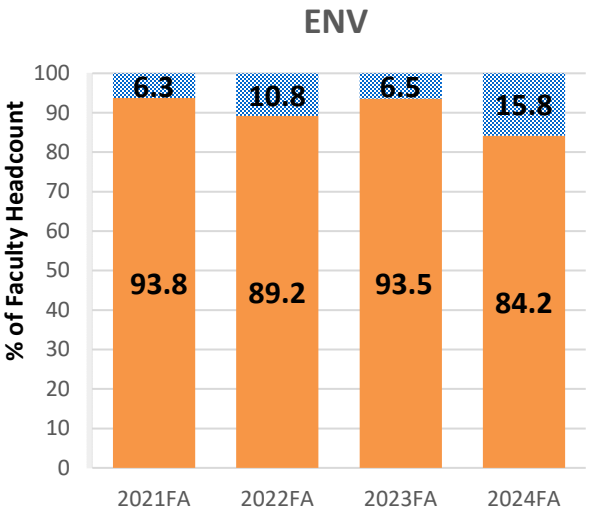
	2021FA	2022FA	2023FA	2024FA
Full-Time	91.3	91.9	94.9	88.8
Part-Time	8.7	8.1	5.1	11.2

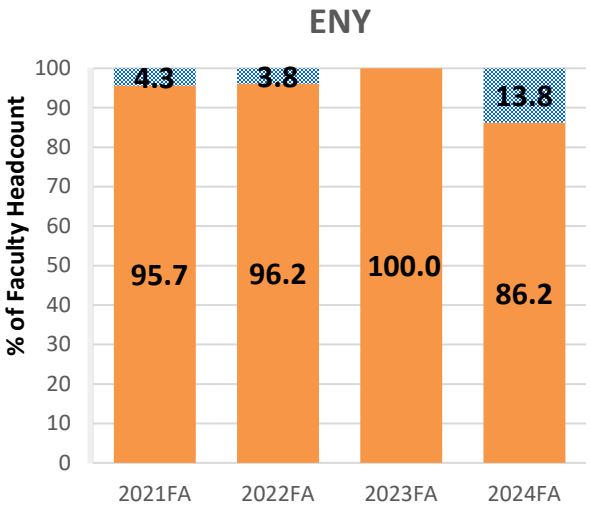
Full-Time/Part-Time Status: Percentage of Headcount by Department

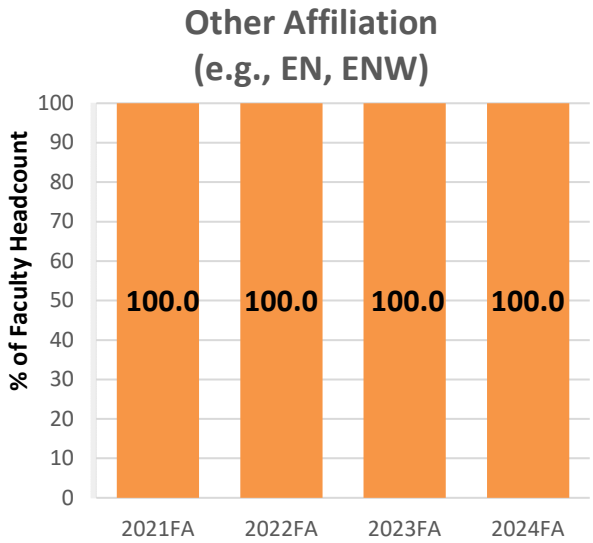


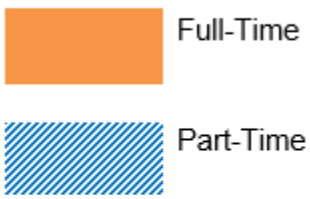

ENP
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
0.0
4.7
5.1
8.9
100.0
95.3
94.9
91.1
2021FA
2022FA
2023FA
2024FA


ENS
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
30.3
16.7
11.1
13.3
69.7
83.3
88.9
86.7
2021FA
2022FA
2023FA
2024FA


ENV
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
6.3
10.8
6.5
15.8
93.8
89.2
93.5
84.2
2021FA
2022FA
2023FA
2024FA


ENY
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
4.3
3.8
13.8
95.7
96.2
100.0
86.2
2021FA
2022FA
2023FA
2024FA


Other Affiliation
(e.g., EN, ENW)
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
100.0
100.0
100.0
100.0
2021FA
2022FA
2023FA
2024FA


Full-Time
Part-Time

ENC: Department of Mathematics and Statistics

	2021FA	2022FA	2023FA	2024FA
Full-Time	100.0	95.2	93.8	88.2
Part-Time	0.0	4.8	6.3	11.8

ENG: Department of Electrical and Computer Engineering

	2021FA	2022FA	2023FA	2024FA
Full-Time	90.9	91.1	97.4	92.7
Part-Time	9.1	8.9	2.6	7.3

ENP: Department of Engineering Physics

	2021FA	2022FA	2023FA	2024FA
Full-Time	100.0	95.3	94.9	91.1
Part-Time	0.0	4.7	5.1	8.9

ENS: Department of Operational Sciences

	2021FA	2022FA	2023FA	2024FA
Full-Time	69.7	83.3	88.9	86.7
Part-Time	30.3	16.7	11.1	13.3

ENV: Department of Systems Engineering and Management

	2021FA	2022FA	2023FA	2024FA
Full-Time	93.8	89.2	93.5	84.2
Part-Time	6.3	10.8	6.5	15.8

ENY: Department of Aeronautics and Astronautics

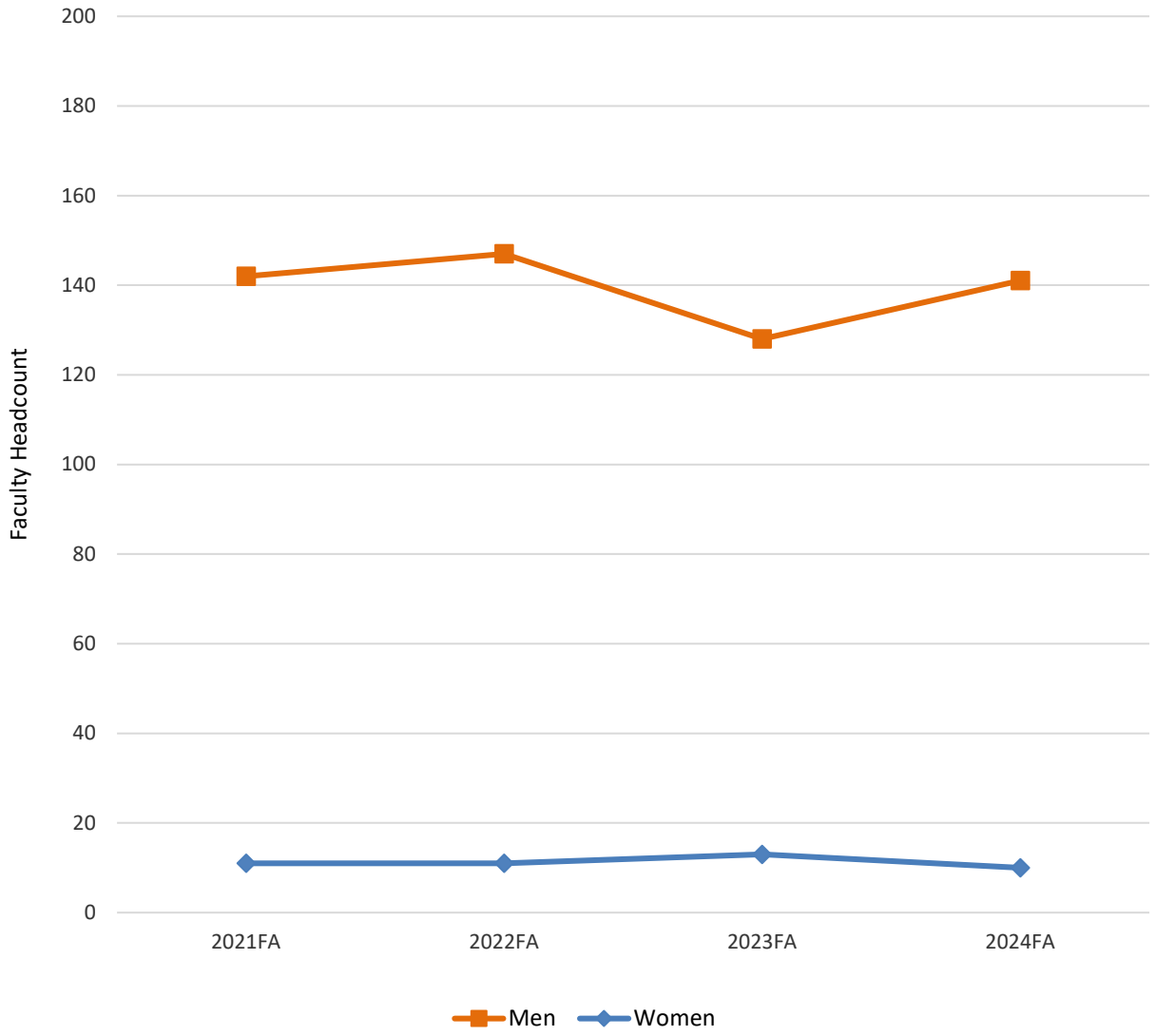
	2021FA	2022FA	2023FA	2024FA
Full-Time	95.7	96.2	100.0	86.2
Part-Time	4.3	3.8	0.0	13.8

Other Affiliation (e.g., EN, ENW)

	2021FA	2022FA	2023FA	2024FA
Full-Time	100.0	100.0	100.0	100.0
Part-Time	0.0	0.0	0.0	0.0

Sex (for Tenured/Tenure-Track Faculty)

Tenured/Tenure-Track Faculty by Sex: Headcount



	2021FA	2022FA	2023FA	2024FA
Men	142	147	128	141
Women	11	11	13	10

Tenured/Tenure-Track Faculty by Sex: Headcount by Department

ENC: Department of Mathematics and Statistics

	2021FA	2022FA	2023FA	2024FA
Men	16	16	11	13
Women	3	3	2	2

ENG: Department of Electrical and Computer Engineering

	2021FA	2022FA	2023FA	2024FA
Men	30	31	30	31
Women	2	2	2	1

ENP: Department of Engineering Physics

	2021FA	2022FA	2023FA	2024FA
Men	27	27	23	27
Women	2	2	3	2

ENS: Department of Operational Sciences

	2021FA	2022FA	2023FA	2024FA
Men	21	23	20	22
Women	0	0	2	2

ENV: Department of Systems Engineering and Management

	2021FA	2022FA	2023FA	2024FA
Men	24	25	23	26
Women	1	1	1	0

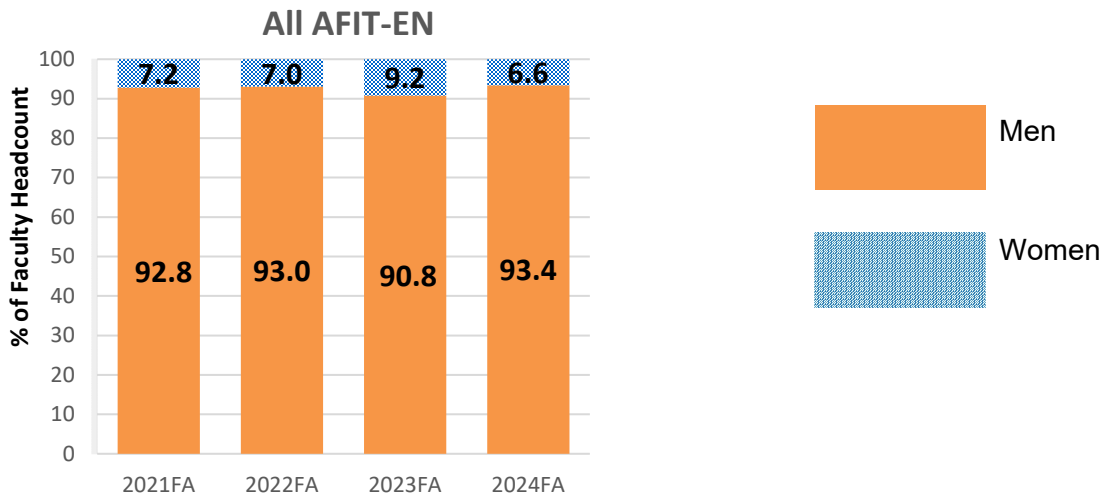
ENY: Department of Aeronautics and Astronautics

	2021FA	2022FA	2023FA	2024FA
Men	19	20	18	19
Women	1	1	2	2

Other Affiliation (e.g., EN, ENW)

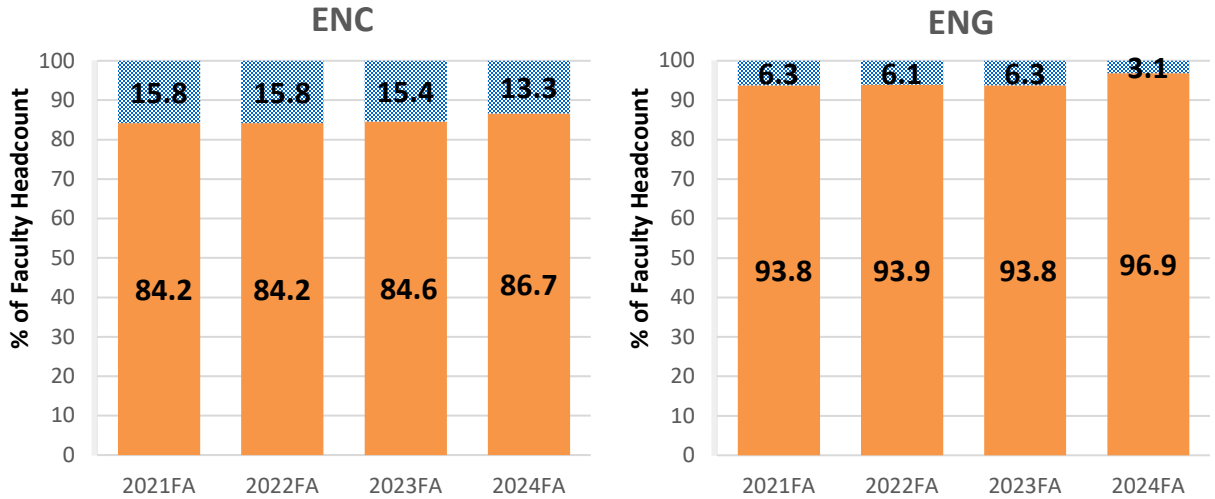
	2021FA	2022FA	2023FA	2024FA
Men	5	5	3	3
Women	2	2	1	1

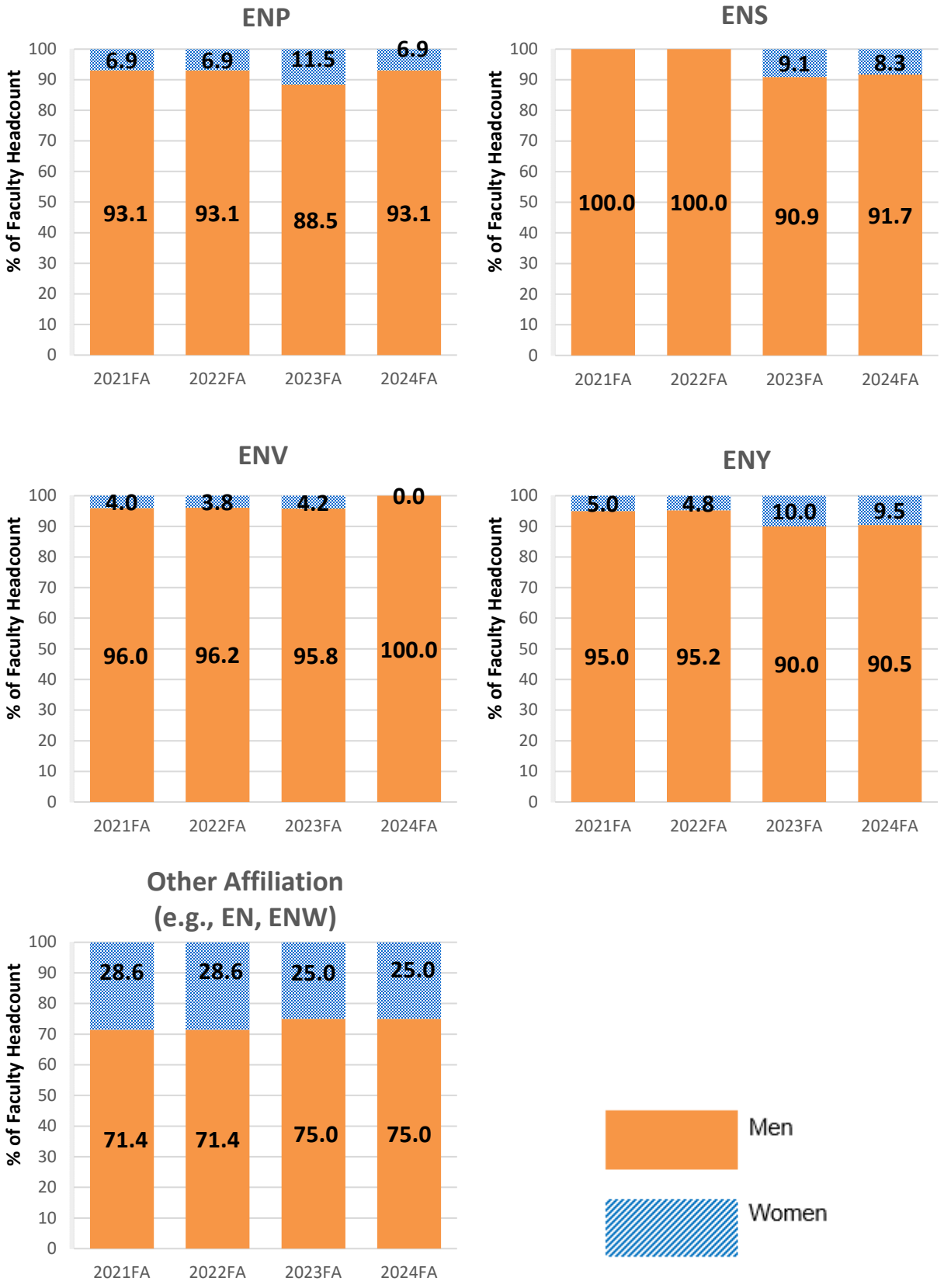
Tenured/Tenure-Track Faculty by Sex: Percentage of Headcount



	2021FA	2022FA	2023FA	2024FA
Men	92.8	93.0	90.8	93.4
Women	7.2	7.0	9.2	6.6

Tenured/Tenure-Track Faculty by Sex: Percentage of Headcount by Department




ENP
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
6.9
6.9
11.5
6.9
93.1
93.1
88.5
93.1
2021FA
2022FA
2023FA
2024FA
ENS
% of Faculty Headcount
9.1
8.3
100.0
100.0
90.9
91.7
2021FA
2022FA
2023FA
2024FA
ENV
% of Faculty Headcount
4.0
3.8
4.2
0.0
96.0
96.2
95.8
100.0
2021FA
2022FA
2023FA
2024FA
ENY
% of Faculty Headcount
5.0
4.8
10.0
9.5
95.0
95.2
90.0
90.5
2021FA
2022FA
2023FA
2024FA
Other Affiliation
(e.g., EN, ENW)
% of Faculty Headcount
28.6
28.6
25.0
25.0
71.4
71.4
75.0
75.0
2021FA
2022FA
2023FA
2024FA
Men
Women

ENC: Department of Mathematics and Statistics

	2021FA	2022FA	2023FA	2024FA
Men	84.2	84.2	84.6	86.7
Women	15.8	15.8	15.4	13.3

ENG: Department of Electrical and Computer Engineering

	2021FA	2022FA	2023FA	2024FA
Men	93.8	93.9	93.8	96.9
Women	6.3	6.1	6.3	3.1

ENP: Department of Engineering Physics

	2021FA	2022FA	2023FA	2024FA
Men	93.1	93.1	88.5	93.1
Women	6.9	6.9	11.5	6.9

ENS: Department of Operational Sciences

	2021FA	2022FA	2023FA	2024FA
Men	100.0	100.0	90.9	91.7
Women	0.0	0.0	9.1	8.3

ENV: Department of Systems Engineering and Management

	2021FA	2022FA	2023FA	2024FA
Men	96.0	96.2	95.8	100.0
Women	4.0	3.8	4.2	0.0

ENY: Department of Aeronautics and Astronautics

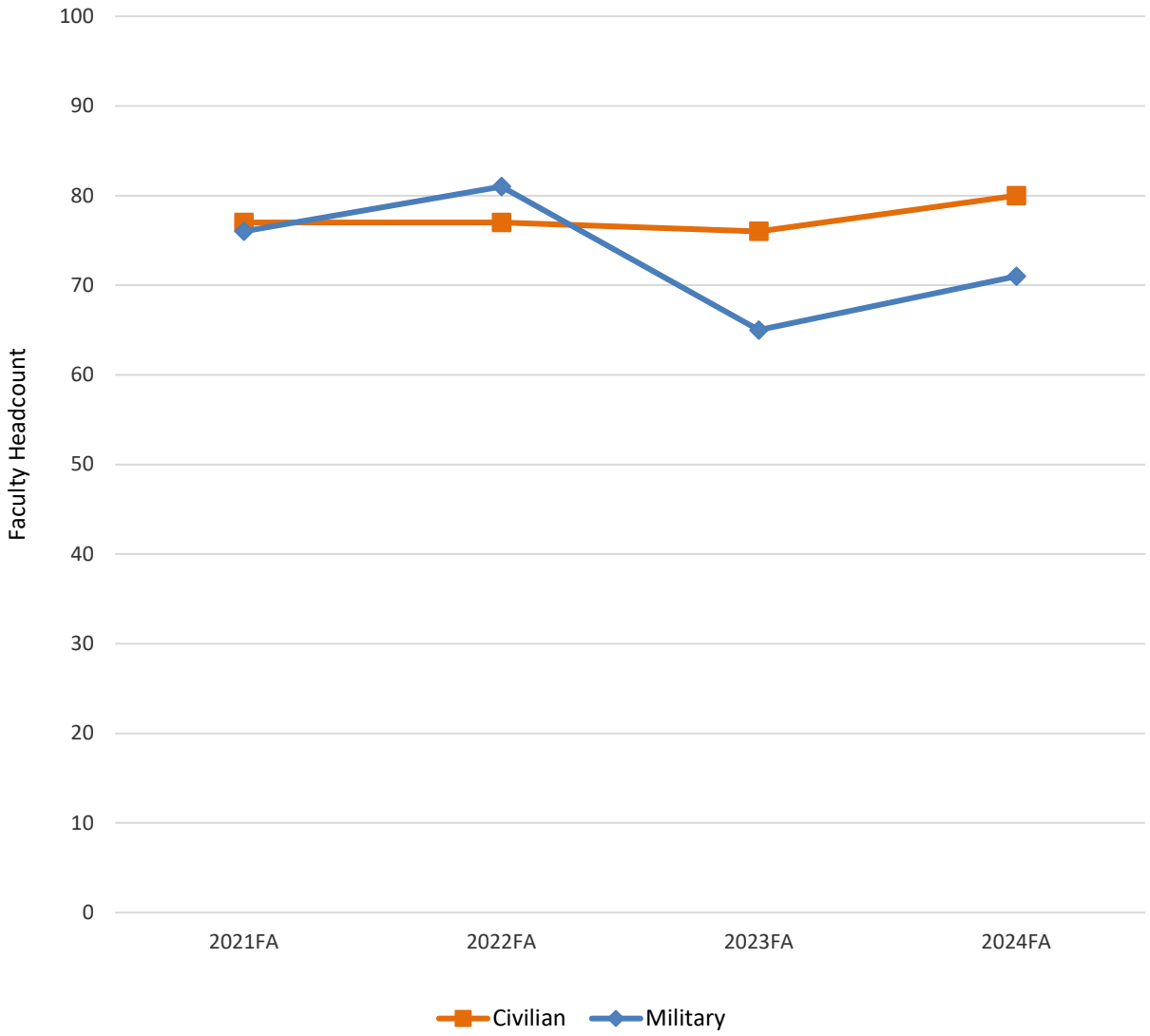
	2021FA	2022FA	2023FA	2024FA
Men	95.0	95.2	90.0	90.5
Women	5.0	4.8	10.0	9.5

Other Affiliation (e.g., EN, ENW)

	2021FA	2022FA	2023FA	2024FA
Men	71.4	71.4	75.0	75.0
Women	28.6	28.6	25.0	25.0

Military/Civilian Status (for Tenured/Tenure-Track Faculty)

Tenured/Tenure-Track Faculty by Military/Civilian Status: Headcount



	2021FA	2022FA	2023FA	2024FA
Civilian	77	77	76	80
Military	76	81	65	71

Tenured/Tenure-Track Faculty by Military/Civilian Status and Department: Headcount

ENC: Department of Mathematics and Statistics

	2021FA	2022FA	2023FA	2024FA
Civilian	8	9	8	8
Military	11	10	5	7

ENG: Department of Electrical and Computer Engineering

	2021FA	2022FA	2023FA	2024FA
Civilian	19	17	18	20
Military	13	16	14	12

ENP: Department of Engineering Physics

	2021FA	2022FA	2023FA	2024FA
Civilian	12	12	11	12
Military	17	17	15	17

ENS: Department of Operational Sciences

	2021FA	2022FA	2023FA	2024FA
Civilian	11	11	13	13
Military	10	12	9	11

ENV: Department of Systems Engineering and Management

	2021FA	2022FA	2023FA	2024FA
Civilian	12	12	11	12
Military	13	14	13	14

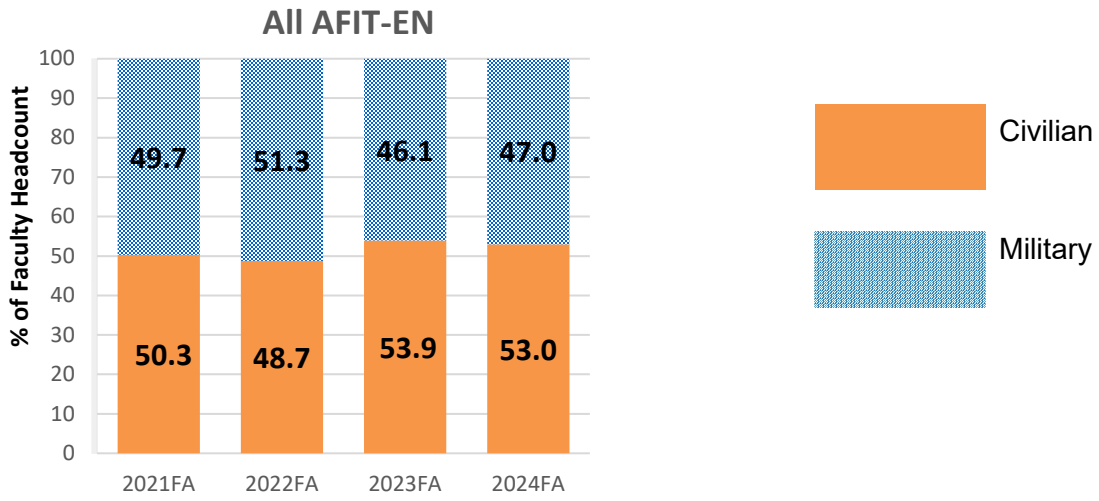
ENY: Department of Aeronautics and Astronautics

	2021FA	2022FA	2023FA	2024FA
Civilian	10	11	12	12
Military	10	10	8	9

Other Affiliation (e.g., EN, ENW)

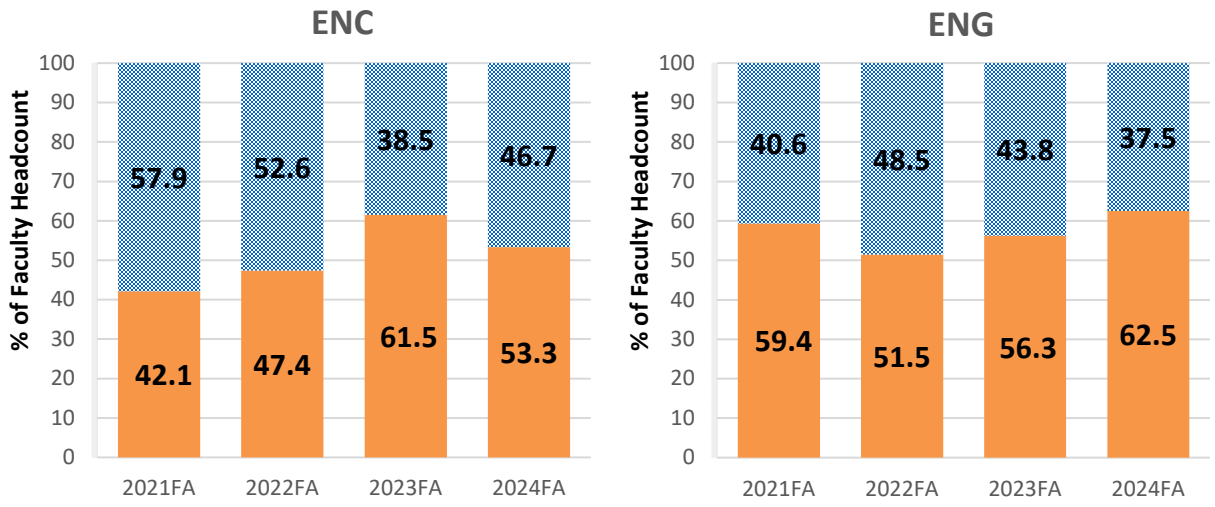
	2021FA	2022FA	2023FA	2024FA
Civilian	5	5	3	3
Military	2	2	1	1

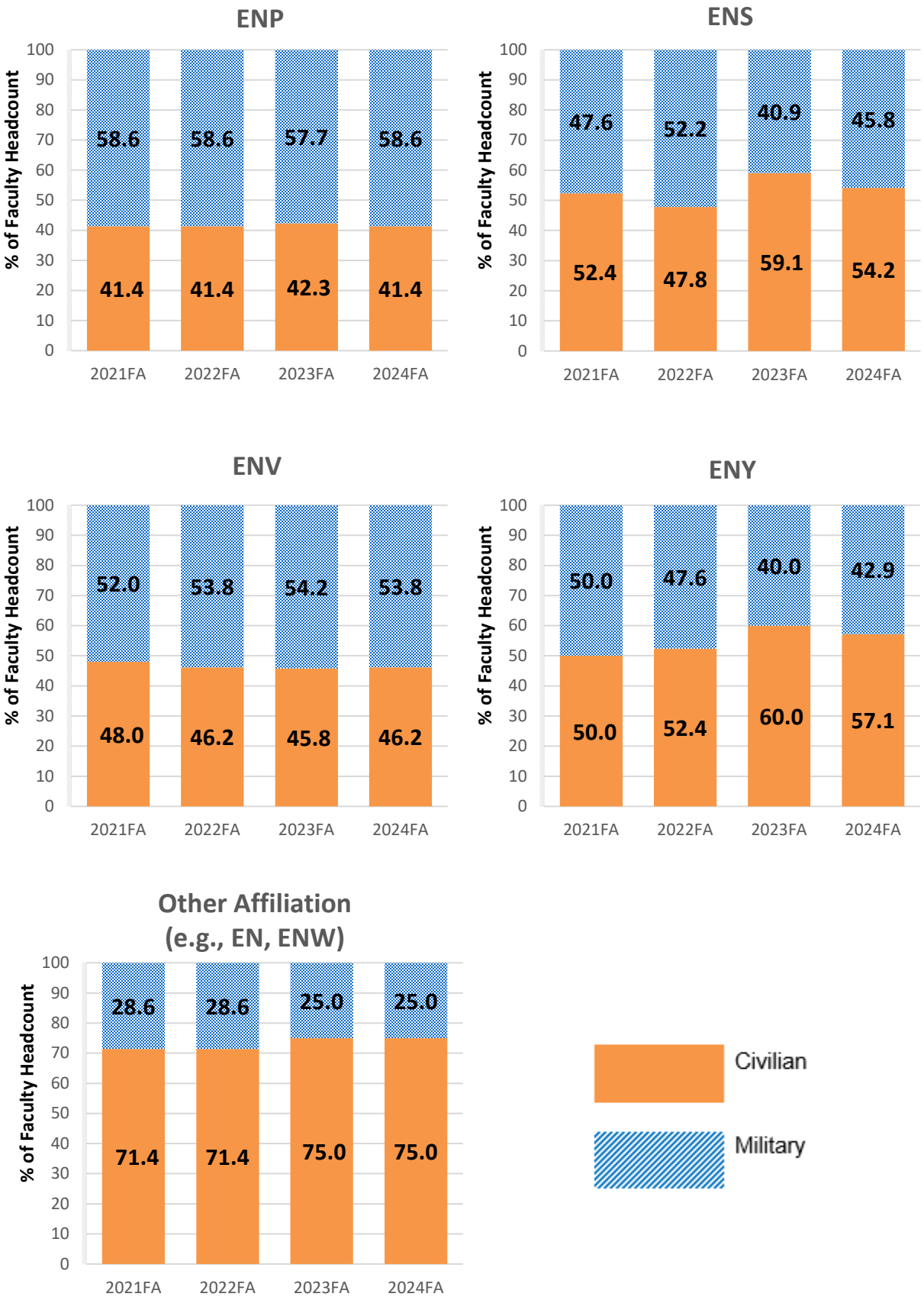
Tenured/Tenure-Track Faculty by Military/Civilian Status: Percentage of Headcount



	2021FA	2022FA	2023FA	2024FA
Civilian	50.3	48.7	53.9	53.0
Military	49.7	51.3	46.1	47.0

Tenured/Tenure-Track Faculty by Military/Civilian Status: Percentage of Headcount by Dept.




ENP
% of Faculty Headcount
100
90
80
70
60
50
40
30
20
10
0
58.6
58.6
57.7
58.6
41.4
41.4
42.3
41.4
2021FA
2022FA
2023FA
2024FA
ENS
% of Faculty Headcount
47.6
52.2
40.9
45.8
52.4
47.8
59.1
54.2
2021FA
2022FA
2023FA
2024FA
ENV
% of Faculty Headcount
52.0
53.8
54.2
53.8
48.0
46.2
45.8
46.2
2021FA
2022FA
2023FA
2024FA
ENY
% of Faculty Headcount
50.0
47.6
40.0
42.9
50.0
52.4
60.0
57.1
2021FA
2022FA
2023FA
2024FA
Other Affiliation
(e.g., EN, ENW)
% of Faculty Headcount
28.6
28.6
25.0
25.0
71.4
71.4
75.0
75.0
2021FA
2022FA
2023FA
2024FA
Civilian
Military

ENC: Department of Mathematics and Statistics

	2021FA	2022FA	2023FA	2024FA
Civilian	42.1	47.4	61.5	53.3
Military	57.9	52.6	38.5	46.7

ENG: Department of Electrical and Computer Engineering

	2021FA	2022FA	2023FA	2024FA
Civilian	59.4	51.5	56.3	62.5
Military	40.6	48.5	43.8	37.5

ENP: Department of Engineering Physics

	2021FA	2022FA	2023FA	2024FA
Civilian	41.4	41.4	42.3	41.4
Military	58.6	58.6	57.7	58.6

ENS: Department of Operational Sciences

	2021FA	2022FA	2023FA	2024FA
Civilian	52.4	47.8	59.1	54.2
Military	47.6	52.2	40.9	45.8

ENV: Department of Systems Engineering and Management

	2021FA	2022FA	2023FA	2024FA
Civilian	48.0	46.2	45.8	46.2
Military	52.0	53.8	54.2	53.8

ENY: Department of Aeronautics and Astronautics

	2021FA	2022FA	2023FA	2024FA
Civilian	50.0	52.4	60.0	57.1
Military	50.0	47.6	40.0	42.9

Other Affiliation (e.g., EN, ENW)

	2021FA	2022FA	2023FA	2024FA
Civilian	71.4	71.4	75.0	75.0
Military	28.6	28.6	25.0	25.0

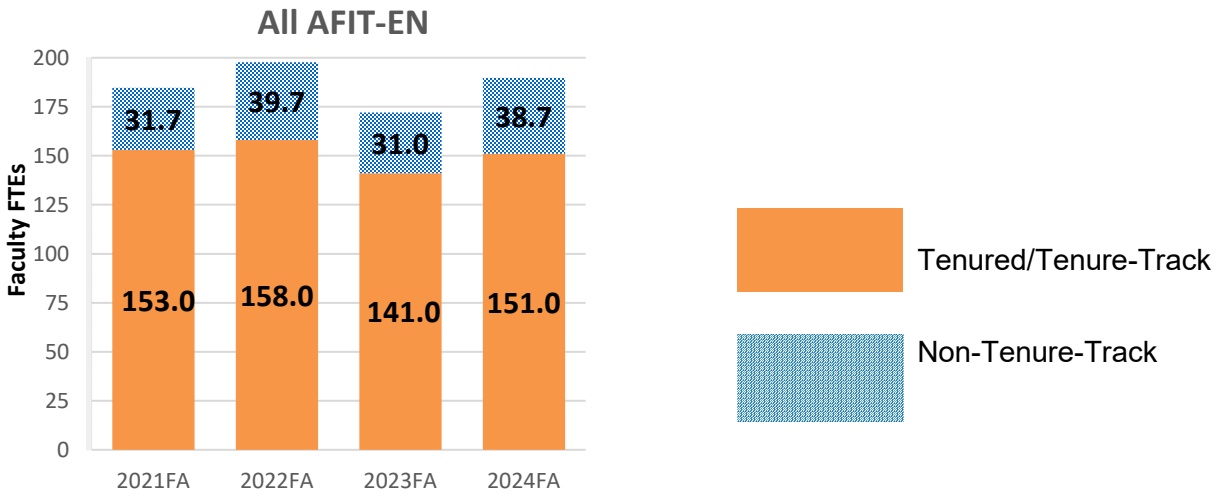
Military Rank (for Tenured/Tenure-Track Faculty)

Tenured/Tenure-Track Military Faculty by Rank: Headcount

		2021FA	2022FA	2023FA	2024FA
Air Force	**Capt**	10	13	8	11
	Col	2	3	3	3
	Lt Col	29	25	25	27
	Maj	29	33	27	28
Army	**LTC**	5	4	1	1
Coast Guard	**CDR**	1	1	0	0
Space Force	**Lt Col**	0	1	1	1
	Maj	0	1	0	0

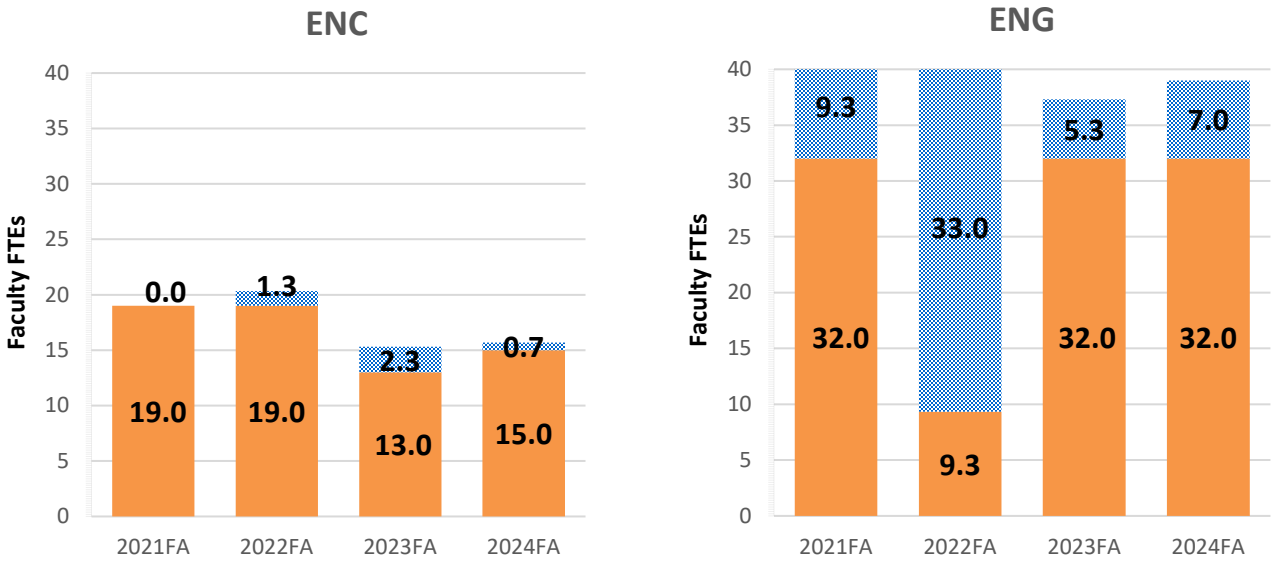
Faculty FTEs

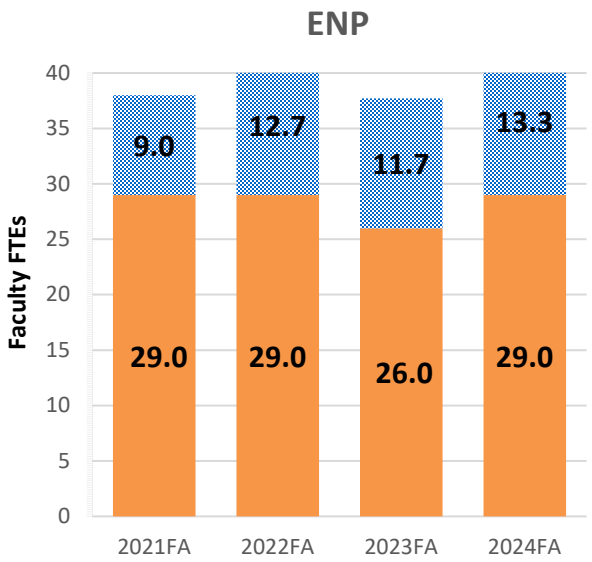
Overall Faculty FTEs by Tenure Status

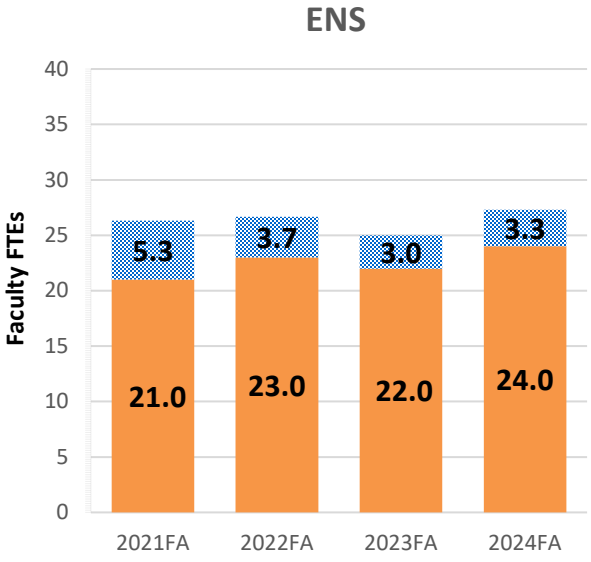


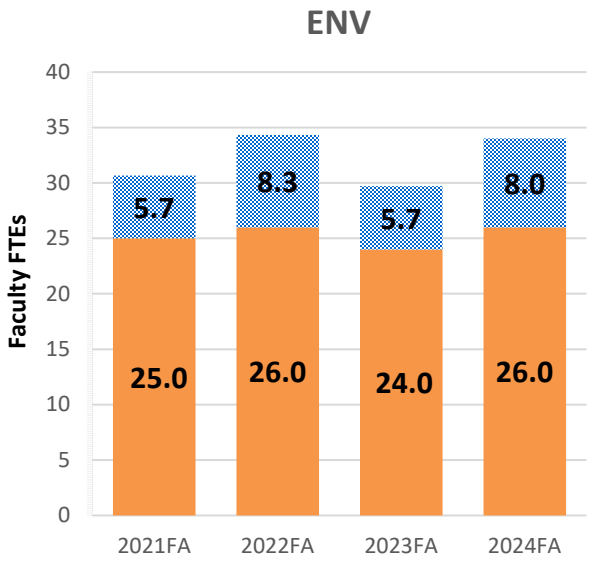
	2021FA	2022FA	2023FA	2024FA
Tenured/Tenure-Track	153.0	158.0	141.0	151.0
Non-Tenure-Track	31.7	39.7	31.0	38.7
TOTAL	**184.7**	**197.7**	**172.0**	**189.7**

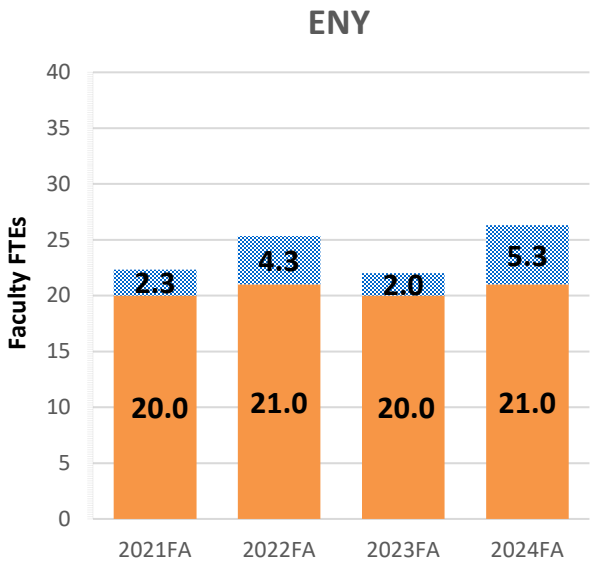
Faculty FTEs by Tenure Status and Department

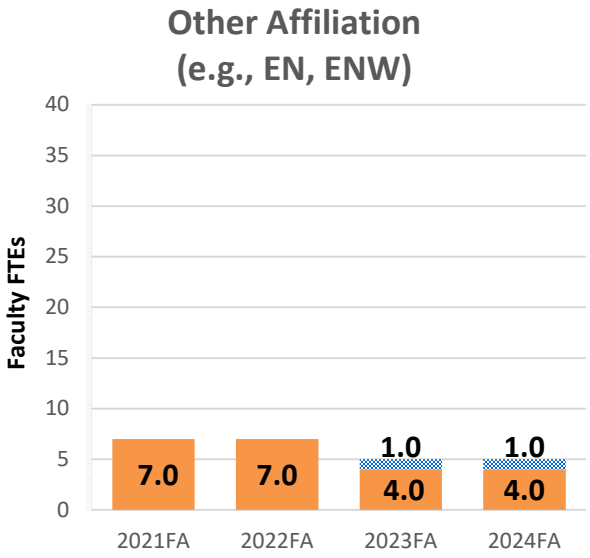


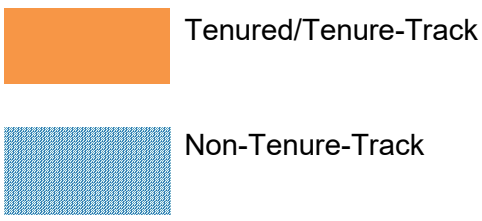

ENP
Faculty FTEs
40
35
30
25
20
15
10
5
0
9.0
12.7
11.7
13.3
29.0
29.0
26.0
29.0
2021FA
2022FA
2023FA
2024FA


ENS
Faculty FTEs
40
35
30
25
20
15
10
5
0
5.3
3.7
3.0
3.3
21.0
23.0
22.0
24.0
2021FA
2022FA
2023FA
2024FA


ENV
Faculty FTEs
40
35
30
25
20
15
10
5
0
5.7
8.3
5.7
8.0
25.0
26.0
24.0
26.0
2021FA
2022FA
2023FA
2024FA


ENY
Faculty FTEs
40
35
30
25
20
15
10
5
0
2.3
4.3
2.0
5.3
20.0
21.0
20.0
21.0
2021FA
2022FA
2023FA
2024FA


Other Affiliation
(e.g., EN, ENW)
Faculty FTEs
40
35
30
25
20
15
10
5
0
7.0
7.0
1.0
4.0
1.0
4.0
2021FA
2022FA
2023FA
2024FA


Tenured/Tenure-Track
Non-Tenure-Track

ENC: Department of Mathematics and Statistics

	2021FA	2022FA	2023FA	2024FA
Tenured/Tenure-Track	19.0	19.0	13.0	15.0
Non-Tenure-Track	0.0	1.3	2.3	0.7
TOTAL	**19.0**	**20.3**	**15.3**	**15.7**

ENG: Department of Electrical and Computer Engineering

	2021FA	2022FA	2023FA	2024FA
Tenured/Tenure-Track	32.0	9.3	32.0	32.0
Non-Tenure-Track	9.3	33.0	5.3	7.0
TOTAL	**41.3**	**42.3**	**37.3**	**39.0**

ENP: Department of Engineering Physics

	2021FA	2022FA	2023FA	2024FA
Tenured/Tenure-Track	29.0	29.0	26.0	29.0
Non-Tenure-Track	9.0	12.7	11.7	13.3
TOTAL	**38.0**	**41.7**	**37.7**	**42.3**

ENS: Department of Operational Sciences

	2021FA	2022FA	2023FA	2024FA
Tenured/Tenure-Track	21.0	23.0	22.0	24.0
Non-Tenure-Track	5.3	3.7	3.0	3.3
TOTAL	**26.3**	**26.7**	**25.0**	**27.3**

ENV: Department of Systems Engineering and Management

	2021FA	2022FA	2023FA	2024FA
Tenured/Tenure-Track	25.0	26.0	24.0	26.0
Non-Tenure-Track	5.7	8.3	5.7	8.0
TOTAL	**30.7**	**34.3**	**29.7**	**34.0**

ENY: Department of Aeronautics and Astronautics

	2021FA	2022FA	2023FA	2024FA
Tenured/Tenure-Track	20.0	21.0	20.0	21.0
Non-Tenure-Track	2.3	4.3	2.0	5.3
TOTAL	**22.3**	**25.3**	**22.0**	**26.3**

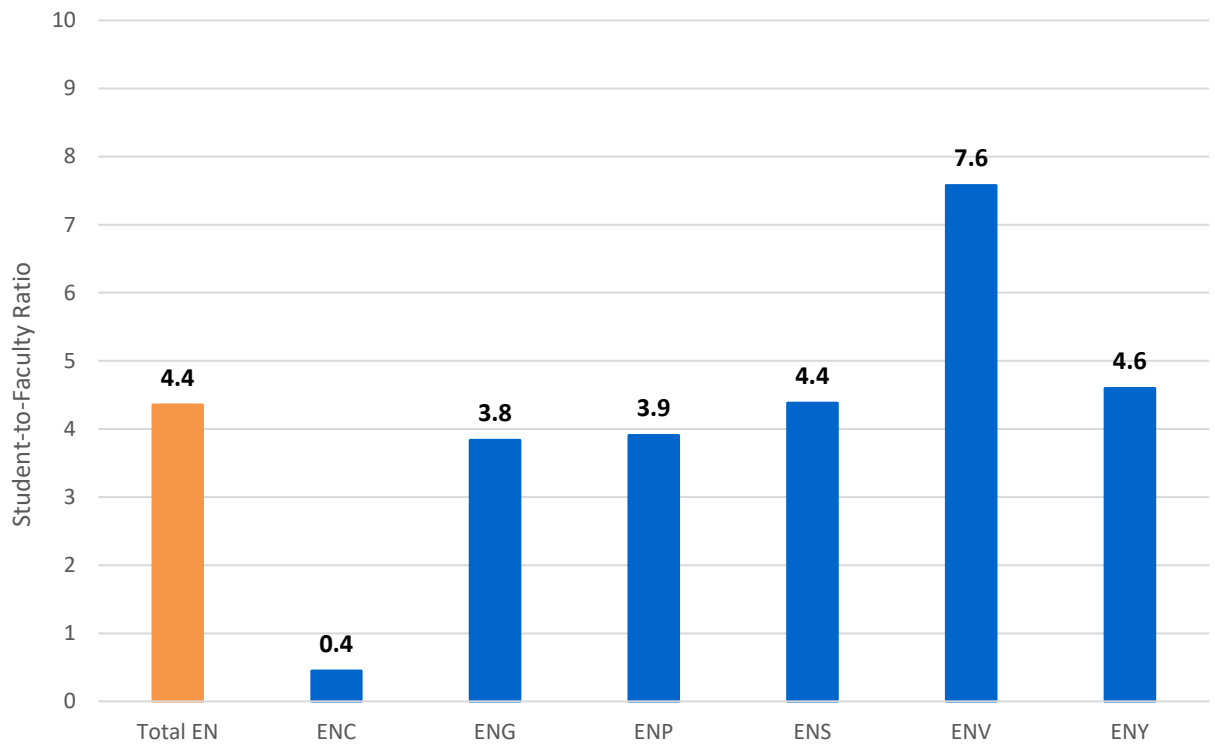
Other Affiliation (e.g., EN, ENW)

	2021FA	2022FA	2023FA	2024FA
Tenured/Tenure-Track	7.0	7.0	4.0	4.0
Non-Tenure-Track	0.0	0.0	1.0	1.0
TOTAL	**7.0**	**7.0**	**5.0**	**5.0**

Student-to-Faculty Ratio

Student-to-Faculty Ratio: The average number of students per faculty member (e.g., in Fall 2024, there were 4.4 students for every 1 faculty member). The *Student-to-Faculty Ratio* is based on *Student* and *Faculty FTEs* and includes all students and faculty (excluding faculty who are classified as *Adjunct Faculty – Non-Teaching*).

Fall 2024 Student-to-Faculty Ratio

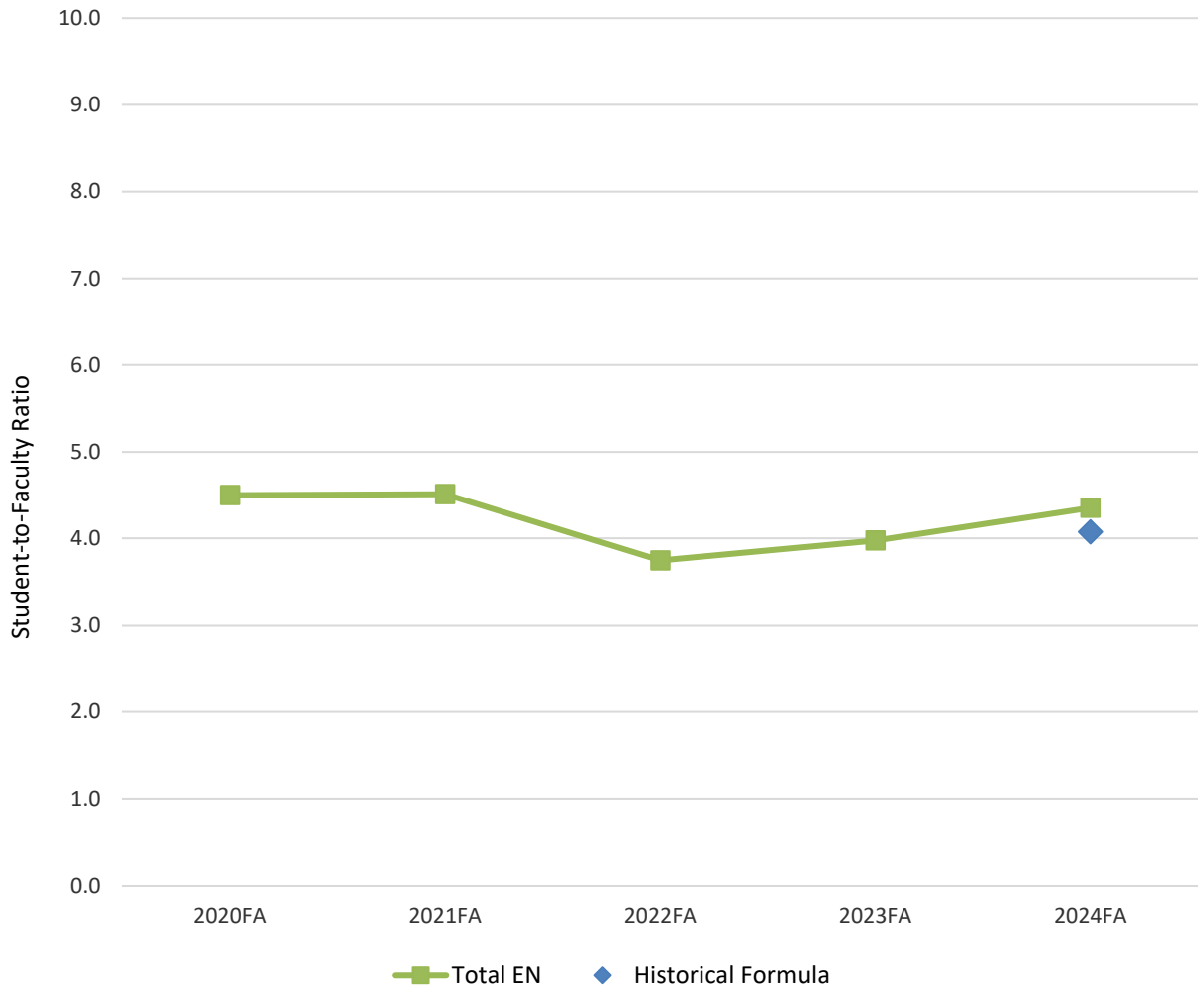


	2024FA Student-to-Faculty Ratio		
	Total Student FTE	Total Faculty FTE	Student-to-Faculty Ratio
Total EN	**826**	**190**	**4.4 to 1**
(ENC) Mathematics and Statistics	7	16	0.4 to 1
(ENG) Electrical and Computer Engineering	150	39	3.8 to 1
(ENP) Engineering Physics	165	42	3.9 to 1
(ENS) Operational Sciences	120	27	4.4 to 1
(ENV) Systems Engineering and Management	258	34	7.6 to 1
(ENY) Aeronautics & Astronautics	121	26	4.6 to 1

Overall Trends

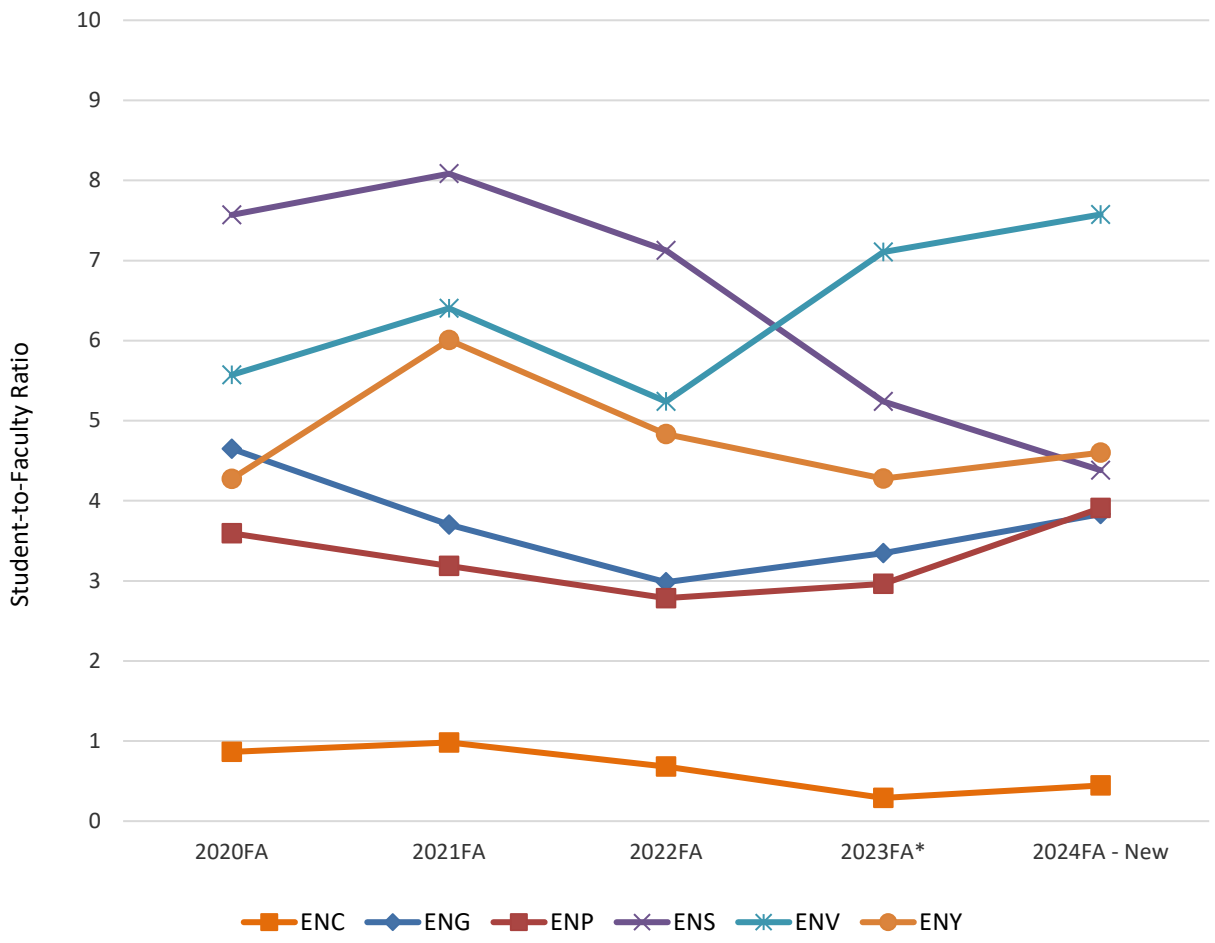
The *Student-to-Faculty Ratio* is based on *Student* and *Faculty FTEs*. In Fall 2024, the method for calculating *Student FTEs* was updated, resulting in higher *Student FTEs* and *Student-to-Faculty Ratios*. For longitudinal trend purposes, total Student FTEs for fall 2024 are provided using both the historic formula as well as the new formula.

For full details on the *Student FTE* changes, see the *Student FTEs* section of the Fact Book.



	2020FA	2021FA	2022FA	2023FA	*2024FA - Historical*	2024FA - New
Total EN	4.5	4.5	3.7	4.0	*4.1*	4.4

Department



	2020FA	2021FA	2022FA	2023FA*	*2024FA - Historical*	2024FA - New
Total EN	**4.5**	**4.5**	**3.7**	**4.0**	***4.1***	**4.4**
(ENC) Mathematics and Statistics	0.9	1.0	0.7	0.3	*0.4*	0.4
(ENG) Electrical and Computer Engineering	4.7	3.7	3.0	3.3	*3.8*	3.8
(ENP) Engineering Physics	3.6	3.2	2.8	3.0	*3.5*	3.9
(ENS) Operational Sciences	7.6	8.1	7.1	5.2	*4.3*	4.4
(ENV) Systems Engineering and Management	5.6	6.4	5.2	7.1	*6.9*	7.6
(ENY) Aeronautics & Astronautics	4.3	6.0	4.8	4.3	*4.5*	4.6

* Beginning in Fall 2023, the Graduate Certificate in Data Analytics moved from ENS to ENV.

About AFIT-EN

AFIT Mission and Vision

Mission

To produce outstanding technical leaders in the Department of Defense by providing superior graduate education built on defense-focused research.

Vision

To be internationally recognized as the school of choice in engineering and applied science for defense-focused and research-based graduate education.

Leadership

Director and Chancellor

Walter F. Jones, PhD

Chief Academic Officer

Heidi R. Ries, PhD

Commander, Air University Detachment 1 (AFIT)/Director of Staff

Colonel Sarah E. Isbill, PhD

The Graduate School of Engineering and Management

Deans

Adedeji Badiru, PhD, Dean

Col James R. Fee, PhD, Associate Dean

Lt Col Christopher M. Rondeau, PhD, Associate Dean of Students

Scott R. Graham, PhD, Dean for Research

Gilbert L. Peterson PhD, Associate Dean for Academic Affairs

Department Heads

ENC, Mathematics and Statistics: Alan V. Lair, PhD

ENG, Electrical and Computer Engineering: Kenneth M. Hopkinson, PhD

ENP, Engineering Physics: Col Nathan B. Terry, PhD

ENS, Operational Sciences: William A. Cunningham, PhD

ENV, Systems Engineering and Management: Michael R. Grimaila, PhD

ENY, Aeronautics and Astronautics: Mark F. Reeder, PhD

Directors

EN, Faculty Development and CIE, Director: Alice E. Grimes, PhD

ENE, Registration and Student Operations, Director: Kathleen K. Burden

ENRS, Sponsored Programs, Associate Director: Jeff Murray

ENWE, Extension Services, Director: John A. Reisner

ENWI, Institutional Research, Director: Andrea I. Bakker, PhD

ENWL, D'Azzo Research Library, Director: Ellis Beteck, PhD

Accreditation

The Air Force Institute of Technology has been continuously accredited by the Higher Learning Commission (HLC) since 1960. AFIT participates through the Open Pathway reaffirmation of accreditation process, and last underwent a comprehensive self-study and site visit during the 2020-2021 academic year in which its regional accreditation was reaffirmed. AFIT's next comprehensive evaluation is scheduled for the 2030-2031 academic year.

Individual programs at AFIT are also accredited by ABET, an organization that accredits college and university programs in applied and natural sciences, computing, and engineering and engineering technology. The following AFIT MS programs are accredited by ABET's Engineering Accreditation Commission (EAC) or ABET's Applied and Natural Science Accreditation Commission (ANSAC).

- Aeronautical Engineering (EAC)
- Astronautical Engineering (EAC)
- Computer Engineering (EAC)
- Electrical Engineering (EAC)
- Engineering Management (EAC)
- Environmental Engineering and Science (EAC)
- Industrial Hygiene (ANSAC)
- Nuclear Engineering (EAC)
- Systems Engineering (EAC)

AFIT's Graduate School of Engineering and Management's next comprehensive ABET review occurs in the 2027-2028 academic year.

Research Centers

Autonomy and Navigation Technology Center (ANT)

Director: Dr. Clark N. Taylor

The Autonomy and Navigation Technology (ANT) Center is a forward-looking research center seeking to identify and solve tomorrow's most challenging navigation and autonomous and cooperative control problems. The ANT Center's goal is to develop navigation technology that ensures we can navigate anywhere, anytime, using anything. The ANT Center focuses on three research thrusts: autonomous and cooperative systems, non-GPS precision navigation, and robust GPS navigation/NAVWAR. Under Air Force Research Laboratory sponsorship, the ANT Center designed and built a GPS-based relative navigation system that determines cm-level relative positions between two flying aircraft. The Center also developed autonomous formation flight control algorithms and successfully flew the entire system at the USAF Test Pilot School, accomplishing the first fully autonomous precision formation flight appropriate for aerial refueling.

Center for Cyberspace Research (CCR)

Director: Lt Col Henry C. Wayne

The Center for Cyberspace Research, established in March 2002, conducts cyber security and cyber operations research at the Master's and PhD levels. CCR affiliated faculty teach and direct graduate research focusing on understanding and developing advanced cyber-related theories and technologies, such as critical infrastructure protection, cyber-physical systems, network intrusion detection and avoidance, insider threat mitigation, cyberspace situational awareness, malicious software detection and analysis, software protection, and anti-tamper technologies.

CCR is forward-looking and responsive to the changing educational and research needs of the Air Force, Department of Defense, and the federal government. CCR faculty's research and teaching establishes AFIT as a national Center of Academic Excellence (CAE-R) in Cyber Research, designated by the Department of Homeland Security (DHS) and the National Security Agency (NSA).

Center for Directed Energy (CDE)

Director: Dr. Steven T. Fiorino

The Center for Directed Energy (CDE) was established as a cross-disciplinary center to conduct sponsored research which would influence the evolution of directed energy. CDE focuses on Research, Education, Innovation, and Collaboration.

Research: CDE research is focused on solving DoD research problems related to directed energy technologies and DoD applications. The center develops models and software that are used primarily for educating, consulting, and advising.

Education: CDE is focused on educating the next generation of Directed Energy (DE) professionals. Pre-service and in-service short courses are offered with an emphasis on research to support education. In conjunction with the graduate school and the Engineering Physics Department, CDE offers rigorous academic programs in the DE associated technologies. Additionally, CDE offers unique co-op and internship opportunities that challenge participants to expand their knowledge and apply it to related real-world scenarios.

Innovation: CDE contributes to the DoD directed energy community through robust research solutions and delivery of software addressing critical DoD needs related to directed energy. CDE researches many areas that will enable or influence new sources of laser power, including chemical, gas, and solid state lasers with advanced active tracking and adaptive optics capabilities.

Collaboration: CDE develops Modeling and Simulation products for researchers and war fighters through collaboration with a diverse group of partners in the DoD and directed energy communities. One of CDE's major contributions is the development of software (HELEEOS and LEEDR) to more accurately model atmospheric effects on directed energy propagation.

Center for Space Research and Assurance (CSRA)

Director: Col Timothy W. Albrecht, PhD

The Center for Space Research and Assurance is focused on delivering highly-valued resilient, responsive, and reliable space capabilities to the DOD and Intelligence Community through executing cutting-edge space technology development, science, and space experiments in collaboration with government organizations to meet the challenges of tomorrow by developing the technical space cadre through world-class research and immersive hands-on graduate education.

Center for Technical Intelligence Studies and Research (CTISR)

Associate Director: Dr. Michael L. Dexter

The AFIT Center for Technical Intelligence Studies and Research (CTISR) is focused on Air Force, DOD and Intelligence Community's scientific, technical and operational activities through graduate research programs. Activities are directed on improving technical intelligence gathering via remote sensing. Current research is focused on signature measurement, phenomenological understanding, and algorithm development for target detection and

tracking, battle space combustion characterization, event classification, and material identification.

Homeland Security Community of Best Practices (HS CoBP)

Director: Dr. Kyle Kolsti

The Homeland Security Community of Best Practices (HS CoBP) is the new strategic arm and tactical day-to-day team of experts at the Air Force Institute of Technology to support the Department of Homeland Security (DHS) in test and evaluation (T&E). The HS CoBP officially began 1 October 2020, with the mission to conduct roundtable events to foster innovative, quality, and agile activities to build an authoritative community of strategic professionals from government, industry, and academia to author critical area T&E best practice guidebooks to ultimately assess and assist acquisition programs.

This Concept of Operations guides how the HS CoBP professional community will support the DHS by owning the T&E domain space, to 1) create and maintain a relevant library of current T&E literature, 2) maintain an active homeland community roster of government, industry, and academia subject matter experts; 3) provide a thorough knowledge of all the types of tests and resulting evaluations; 4) understand or prognosticate present and future homeland security vulnerabilities to inform test and evaluation strategies; and 5) create and maintain critical area T&E best practice guidebooks.

Nuclear Expertise for Advancing Technologies Center (NEAT)

Director: LTC Christina L. Dugan, PhD

The NEAT stood up on 1 May 2019 in response to long-term strategic needs laid out by the Secretary of Defense in the 2018 Nuclear Posture Review (NPR) and a SECAF focus on building strong technical capabilities within the Air Force, including multi-domain awareness and nuclear modernization.

The NEAT was established within the AFIT graduate school with three primary functions: research, education, and publications focused on human capital development. The objective of the research is to tie together the disparate technological areas and disciplines to be at the cutting-edge of present and future technologies. To do this, the NEAT will engage in and conduct research with other specialized AFIT centers, USAF organizations, DoD services, government agencies (e.g., NNSA), industry, and universities, in a strategic and sustained way. In education, the NEAT will seek to provide the nuclear knowledge and expertise to educational initiatives at all levels, allowing graduate education and continuing education to focus on their specific areas, with the NEAT available to provide relevant inserts as needed. Human capital development will occur through graduate student engagement on projects, for which the NEAT

CSR will be able to strategically link to long-term needs of customers. Additionally, NEAT-affiliated researchers will become a local (or future hiring) investment for organizations needing qualified and highly relevant skills to their organizations.

Air Force Center of Excellence

Air Force Cyberspace Technical Center of Excellence (AF CyTCoE)

On June 19, 2008, the Secretary and Chief of Staff of the Air Force designated the Air Force Institute of Technology and the Center for Cyberspace Research as the Air Force's Cyberspace Technical Center of Excellence (CyTCoE). The CyTCoE is chartered to be a unifying and synergistic body for promoting cyberspace education, training, research, and technology development. The CyTCoE will facilitate development of Air Force education and training in support of cyber operations as well as identify and provide subject matter experts that understand doctrine, techniques, and technology to ensure dominance and superiority in cyberspace.

This designation enhances CCR's ability to be a clearinghouse for "who does what" and "who needs what" in cyber. The center will develop and strengthen relationships with, and maintain awareness about the activities of, various cyber-related research, education, and training communities within the Air Force, our service partners in the Department of Defense (DoD), various federal agencies, and civilian academic and commercial research organizations around the globe.

The center will promote information sharing to enable operational organizations to identify and partner with particular research, development, education, and training organizations for problem solutions. As the CyTCoE, the CCR will serve as a bridge between the operational AF cyber forces and various cyber research, education, and training communities across the Air Force, the DoD, and national organizations. Oversight and direction for the center will be provided via the Air Force Cyberspace Education Board of Advisors, comprised of Air Force and DoD senior leaders.

Department of Defense Center of Excellence

Scientific Test & Analysis Center of Excellence (DoD STAT COE)

Director: Dr. Kyle Kolsti

DASD (DT&E), in collaboration with the Commander Air Education and Training Command, established the STAT Center of Excellence (COE) in April 2012 under the stewardship of the Air Force Institute of Technology (AFIT). The COE attained Full Operational Capability in July 2012.

During development of the Test & Evaluation Master Plan (TEMP), the COE works with acquisition program managers and the program's Chief Developmental Tester to improve test effectiveness and ensure efficient use of scarce resources. Utilizing a combination of rigorous scientific methods and lessons learned, the COE determines where test designs can be improved and efficiencies gained, and then applies this knowledge to the program's T&E strategy development.

In order to achieve more defensible test results, the STAT Center initially partnered with 20 major acquisition programs. This partnership has grown to support of 40 major acquisition programs since 2012. As a condition for effective partnering, these programs are early enough in their test strategy planning to allow the implementation of STAT to allow the better informing of the program leadership. The use of STAT does not ensure the success of a program, but rather allows programs to make better use of available test resources, allows for an understanding of information that can be obtained within the current test budget, and allows the understanding of the impact if more or less test resources were available. The use of STAT information provides the program leadership a better understanding to manage risk by ensuring effective testing highlights the current technological maturity, suitability, and operational effectiveness of the program.

The STAT COE consists of an interdisciplinary group of DoD T&E professionals that possess knowledge and experience of DoD T&E planning, execution and assessment, knowledge and experience in warfare areas, and statistical expertise. In addition to injecting more STAT into program test strategy planning, the STAT COE experts ensure the organic test and evaluation team gain a better understanding of STAT and how it should be executed within developing testing methodologies.

In addition to directly supporting the 40 acquisition programs, the Center also provides the development of case studies collects, develops, and promotes best practices and supports work force development through input to course development on scientific and statistical approaches within T&E planning, execution and assessment.

Select Abbreviations

Abbreviation	Unit/Definition
AF CyTCoE	Air Force Cyberspace Technical Center of Excellence
AFIT	Air Force Institute of Technology
ANT	Autonomy and Navigation Technology Center
APDP SAF/AQ	Acquisition Professional Development Program (from SAF/AQ)
CC	Deputy Commander
CCR	Center for Cyberspace Research
CDE	Center for Directed Energy
CE	Civil Engineer School
CI	Civilian Institution Programs
CIM	Civilian Institution Medical Funding
CL	Command Section
COA	Center for Operational Analysis
CRADA	Cooperative Research and Development Agreement
CSRA	Center for Space Research and Assurance
CTISR	Center for Technical Intelligence Studies and Research
DAGSI	Defense Associated Graduate Student Innovators
DAWDF	Defense Acquisition Workforce Development Funds
DERA	Defense Environmental Restoration Account
DoD STAT COE	See STAT COE
EN	Graduate School of Engineering and Management
ENC	Department of Mathematics and Statistics
ENG	Department of Electrical and Computer Engineering
ENP	Department of Engineering Physics
ENR	Office of Research and Sponsored Programs
ENS	Department of Operational Sciences
ENV	Department of Systems Engineering and Management
ENW	Academic Affairs
ENWL	The D'Azzo Research Library
ENY	Department of Aeronautics and Astronautics
EX	School of Strategic Force Studies

Abbreviation	Unit/Definition
FACMAN	Facility Manager
FM	Financial Management Directorate
HS CoBP	Homeland Security Community of Best Practices
LS	School of Systems and Logistics
MS	Mission Support Directorate
MSC	Civilian Personnel
MSP	Military Personnel
NEAT	Nuclear Expertise for Advancing Technologies Center
SC	Communications and Information Directorate
SR	Security Resources and Foreign Disclosure
STAT COE	Scientific Test & Analysis Center of Excellence
WPAFB	Wright-Patterson Air Force Base

Glossary

3080 Procurements (3-Year): Budget appropriations that are used for the purchase of items with a cost of over $250,000, such as lab equipment. They are considered investment purchases. Services cannot be funded under 3080 Procurements unless they are related to the installation of the purchased item or related training. Funds are available for execution for three years.

3400 O&M (1 Year): Budget appropriations that are used for general operating expenses and whose benefits are derived for a limited period of time (i.e., expenses, rather than investments). 3400 O&M (1 Year) appropriations are used for things such as library subscriptions, software, basic maintenance, contractor salaries, travel, GPC, etc. Funds are available for execution for one year. Civ Pay is part of 3400 O&M, but it is centrally managed, rather than managed by individual AFIT units.

3400 O&M (Reimbursable): Budget appropriations that are received from external organizations or groups, including other DoD organizations as well as non-DoD organizations. For AFIT-EN, the majority of 3400 O&M (Reimbursable) appropriations are received for ENR sponsored research programs, i.e., other organizations are funding research at AFIT-EN. 3400 O&M (Reimbursable) also includes tuition paid by or on behalf of AFIT-EN students.

3600 R&D (Multi-Year): AFIT O&M funding has limitations on the ability to enter into certain contracts that require 3600 Research and Development (R&D) funds. The addition of 3600 R&D funding allows for AFIT to better execute on R&D contracts.

Academic Year (AY): At AFIT-EN, the *Academic Year* runs from the fall quarter through the summer quarter (e.g., AY2122 = Fall 2021 – Summer 2022).

Active Academic Program: Academic programs (e.g., Computer Engineering, Logistics) that are currently being offered and accepting students.

Adjunct Faculty: Faculty members whose official faculty appointment to AFIT-EN is an adjunct appointment. Most *Adjunct Faculty* are not paid by EN for their work as an adjunct, do not teach ("*Adjunct Faculty - Non-Teaching*"), and are given the appointment in order to serve on a dissertation or thesis committee. In some rare cases, *Adjunct Faculty* do teach courses ("*Adjunct Faculty – Teaching*"). *Adjunct Faculty* can hold a variety of academic titles (e.g., Adjunct Assistant Professor, Adjunct Research Assistant Professor, Adjunct Instructor). *Adjunct Faculty* may hold a separate full-time position at AFIT (e.g., as a staff member) or elsewhere on base.

Adjunct Faculty - Non-Teaching: *Adjunct Faculty* members who are not teaching during the term specified, but who may be serving on thesis or dissertation committees.

Adjunct Faculty - Teaching: *Adjunct Faculty* members who are teaching a course during the term specified.

Administrator: Personnel who hold a faculty appointment in AFIT-EN (excluding those who hold an *Adjunct* appointment) and whose primary role is in an administrative position (e.g., Dean, Chief Academic Officer).

Advising Student Credit Hours: The *Student Credit Hours* associated with courses identified as thesis or dissertation courses (791, 799, and 899). *TENX Courses*, which are intended to be used for thesis grade submission only and not for actual student coursework, are excluded.

AFIT-EN: Abbreviation for the Air Force Institute of Technology, Graduate School of Engineering and Management.

Assistant/Associate/Full Professor, Non-Tenure-Track (Non-T/TT): Personnel who hold a non-tenure-track faculty appointment as an *Assistant, Associate*, or *Full Professor* in AFIT-EN (e.g., "Non-Tenure Track Assistant Professor"). *Non-T/TT Assistant/Associate/Full Professor* appointments are a separate category from *Adjunct Faculty* appointments.

Assistant/Associate/Full Professor, Tenured/Tenure-Track (T/TT): Personnel who hold a tenure-track faculty appointment as an *Assistant, Associate*, or *Full Professor* in AFIT-EN, and whose primary role in EN is as a professor, rather than as an *Administrator*, *Center Director*, *Department Head*, *Research Faculty* member. These faculty members may be tenured or tenure-track.

Average Advising Student Credit Hours per Faculty FTE: Based on the total number of *Advising Student Credit Hours* divided by the count of *Faculty FTEs*. Unless otherwise specified, all faculty (other than *Adjunct Faculty – Non-Teaching*) are included in the *Faculty FTEs*, regardless of whether they taught *Advising Student Credit Hours* during the term specified. See *Advising Student Credit Hours* for additional details.

Average Class Size: The average number of students enrolled in a course section. Unless otherwise specified, the *Average Class Size* is based on standard courses (lecture, lab, seminar, and lectures with lab) and includes all students enrolled in a course, including those who did not successfully complete the course (e.g., a student who enrolls for a course, but withdraws from the course after the *Census Date* or fails the course is included). See also *Course Enrollments*.

Average Credit Hours per Faculty FTE: Based on the total number of *Student Credit Hours* divided by the count of *Faculty FTEs*. *Student Credit Hours* include all enrolled credit hours for the specified course type (e.g., *Standard Course, Advising*), excluding *TENX Courses*. Unless otherwise specified, all faculty (other than *Adjunct Faculty – Non-Teaching*) are included in the *Faculty FTEs*, regardless of whether they taught during the term specified.

Average Number of Course Sections per Faculty FTE: Based on the total number of *Course Sections* divided by the count of *Faculty FTEs*. *Course Sections* include all individual course sections for standard courses (Lecture, Lecture with Lab, Lab, or Seminar). Unless otherwise specified, all faculty (other than *Adjunct Faculty – Non-Teaching*) are included in the *Faculty FTEs*, regardless of whether they taught a *Course Section* during the term specified.

Census Date: Student information (e.g., program enrollments, course enrollments) is based on a snapshot of the data that is taken on the *Census Date* each quarter. The *Census Date* occurs approximately three weeks into each quarter and provides a snapshot of the data for either the current term (e.g., student enrollments, course enrollments, student demographics) or, in cases where data are not available until after the term ends, a snapshot of data for the previous term (e.g., degrees awarded or final course grades).

Center Director: Personnel who hold a faculty appointment in AFIT-EN (excluding those who hold an *Adjunct* appointment) and whose primary role is in as a Center Director.

Civilian, Critical Infrastructure: See *Critical Infrastructure (Civilian or Contractor).*

Civilian, Other: This category includes all civilians who do not fit any of the other detailed civilian types. *Civilian, Other* typically includes cross-registered students from other institutions (their "home" institution) who are enrolled in courses at AFIT via a consortium agreement.

Class Size, Average: See *Average Class Size*.

Contractor, Critical Infrastructure: See *Critical Infrastructure (Civilian or Contractor).*

Course Department: The department that offers or "owns" the course. A course may be offered by one department, even though it is taught by an instructor from another department and/or includes students from another department.

Course Enrollments: The number of AFIT-EN course registrations during the time period specified; enrolled students are counted once for each course in which they are enrolled (e.g., a student who is enrolled in four course sections counts as four course enrollments). Unless otherwise specified, *Course Enrollments* are based on *Standard Courses* (lecture, lab, seminar, and lectures with lab). *Course Enrollments* are based on all students enrolled in a course, including those who did not successfully complete the course (e.g., a student who enrolls for a course, but withdraws from the course after the *Census Date* or fails the course is included).

Course Sections: This refers to the number of course sections offered during a quarter. Each individual section is counted separately (e.g., ASYS 631 section 01 and ASYS 631 section 10 are counted separately).

Credit Hours: See *Student Credit Hours*.

Credit Hours, Advising: See *Advising Credit Hours*.

Credit Hours, Student: See *Student Credit Hours*.

Critical Infrastructure (Civilian or Contractor): A non-DoD federal employee ("civilian") or a contractor who is employed in a field that is part of the critical infrastructure of the government.

DAWDF (2-Year): Defense Acquisition Workforce Development Funds. DAWDF are used to hire acquisitions staff or to train people to work in acquisitions. At AFIT, DAWDF are usually used for specific acquisitions-related courses or training. These funds are available for execution for two years.

Degrees Awarded: The number of certificates, master's degrees, or PhDs awarded to AFIT-EN students during the full academic year (October – September). If a student received more than one degree/certificate (e.g., both a certificate and a PhD), each degree/certificate will be counted.

Department Head: Personnel who hold a faculty appointment in AFIT-EN (excluding those who hold an *Adjunct* appointment) and whose primary role is as a Department Head, including interim Department Heads.

Department, Course: See *Course Department*.

Department, Faculty: See *Faculty Department*.

Department, Student: See *Student Department*.

Dissertation Research Hours: The credit hours generated by courses identified as dissertation research courses (999). For the Fact Book, *Dissertation Research Hours* are based on all credit hours generated by student enrollment in dissertation research courses, and not necessarily those that are successfully completed (e.g., a student who enrolls for a 3 credit hour course but withdraws from the course after the *Census Date* or fails the course would still be included as enrolling for 3 *Dissertation Research Hours*). *Dissertation Research Hours* are the same as *Student Credit Hours*, except that *Dissertation Research Hours* refer only to those generated by dissertation research courses.

Distance Learner: A student who is enrolled in a *Distance Learning* program at AFIT-EN.

Distance Learning: A course or program where the instructor and students are in different locations from each other and that utilizes the internet or other methods for communicating instructional materials.

Distance Offering: See *Distance Learning*.

EN: Abbreviation for the Graduate School of Engineering and Management.

End-of-Year Reporting: In contrast to *Recent Execution Reporting*, *End-of-Year Reporting* is based on the end of the *Fiscal Year* of the budget (e.g., FY15 data are based on the end of

FY15), rather than the most current data available. With *End-of-Year Reporting*, funds are also attached to the *Fiscal Year* in which they are used, rather than the *Fiscal Year* in which they are allocated (e.g., FY15 allocations that are not used until FY17 are counted with FY17 allocations).

Enrollment: See *Student Enrollment* or *Course Enrollment*.

Entering Cohort: All students who began a new Master's or PhD program at AFIT-EN during the specified *Academic Year*. Students who previously enrolled in AFIT-EN courses or who previously received a master's degree (from AFIT-EN or elsewhere) are included. Students who first enroll in the summer quarter are typically considered part of the *Entering Cohort* for the *Academic Year* that starts during the following fall quarter.

Entering Quota Cohort: All *Quota* students who began a new master's or PhD program at AFIT-EN during the specified *Academic Year*. Students who previously enrolled in AFIT-EN courses or who previously received a master's degree (from AFIT-EN or elsewhere) are included. Students who first enroll in the summer quarter are typically considered part of the *Entering Cohort* for the *Academic Year* that starts during the following fall quarter.

Faculty Department: The department in which a faculty member is officially appointed (i.e., home department). A faculty member may teach courses outside of their home department.

Faculty FTE: The full-time equivalent number of faculty members. Unless otherwise noted, *Faculty FTEs* for AFIT-EN do not include faculty who are classified as *Adjunct Faculty – Non-Teaching*. Consistent with standard national guidelines (e.g., the Common Data Set), *Faculty FTE* is calculated as the total number of full-time faculty members plus 1/3 the number of part-time faculty members (FTE = FT + 1/3 PT).

Faculty Headcount: The number of personnel who hold a faculty appointment in AFIT-EN, including Tenured/Tenure-Track (T/TT) appointments and Non-Tenure-Track Appointments (Non-T/TT). Unless otherwise noted, the *Faculty Headcount* for AFIT-EN does not include faculty who are classified as *Adjunct Faculty – Non-Teaching*.

Fiscal Year (FY): The fiscal year at AFIT runs from October 1 – September 30 and is used for budgetary reporting.

FTE, Faculty: See *Faculty FTE*.

FTE, Student: See *Student FTE*.

Full-Time Faculty: All faculty are classified as full-time, with the exception of Adjunct Faculty or faculty members identified as part-time by the Department Head, MSC, or ENW.

Full-Time Student: For the purpose of the Fact Book, all (Air Force/Space Force) *Quota* students, international students, Air Force/Space Force sponsored civilians, and all *Resident* sister service military members are classified as full-time, regardless of the number of *Credit Hours* enrolled. All other students are classified as full-time based on the number of *Credit*

Hours in which they are enrolled; master's, certificate, and non-degree students are classified as full time if they are enrolled for 12 or more *Credit Hours*; PhD students must be enrolled for 9 or more *Credit Hours* to be classified as full-time. Students enrolled for fewer than 12/9 Credit Hours are classified as part-time.

Funding Sources: AFIT funding comes from a variety of sources, including AETC, DERA, APDP SAF/AQ, SAF/SG, IMSC, and additional external sources.

Graduated/Graduation: For the purposes of *Graduation Rate* and *On-Time Completion* analyses, students are counted as *Graduated* if they complete a Master's or PhD at AFIT-EN within the time period specified, regardless of whether the graduating program matches their original program at the time of entrance.

Graduating Class: All students who completed a master's degree or PhD during the year specified, regardless of whether they had previously earned a master's degree (from AFIT-EN or elsewhere).

Graduation Rate: The percentage of students in an *Entering Cohort* who *Graduated* during the time period specified.

Instructor: Personnel who hold a faculty appointment as an *Instructor* in AFIT-EN. This appointment is typically given to newly appointed, permanent faculty who have not yet finished their PhD. Once the PhD is completed, *Instructors* are typically given a new appointment as a *Tenure-Track Assistant Professor*.

Master's/PhD Entrance Quarter: The first quarter during which a student enrolled at AFIT-EN as a master's degree-seeking student, regardless of the specific program(s) in which the student was enrolled.

Non-Tenure-Track (Non-T/TT) Assistant/Associate/Full Professor: See *Assistant/Associate/Full Professor, Non-Tenure-Track (Non-T/TT)***.**

On-Site Offering: An AFIT-EN course or program that is offered at a location other than the AFIT campus, but where the instructor and students are in the same physical location as each other.

On-Time Completion Rate: The percentage of students in the *Entering Quota Cohort* who completed a master's or PhD within the amount of time assigned to them at the time of admission, regardless of whether the graduating program matches their original program at the time of entrance.

Part-Time Faculty: All Adjunct Faculty are classified as part-time, in addition to faculty members identified as part-time by the Department Head, MSC, or ENW. Very few faculty members in AFIT-EN are part-time.

Part-Time Student: For the purpose of the Fact Book, all (Air Force/Space Force) *Quota* students, international students, Air Force/Space Force sponsored civilians, and all *Resident*

sister service military members are classified as full-time, regardless of the number of *Credit Hours* enrolled. All other students are classified as full-time based on the number of *Credit Hours* in which they are enrolled; master's, certificate, and non-degree students are classified as full time if they are enrolled for 12 or more *Credit Hours*; PhD students must be enrolled for 9 or more *Credit Hours* to be classified as full-time. Students enrolled for fewer than 12/9 Credit Hours are classified as part-time.

Post-Graduation Student Assignments: MS and PhD graduates' assignments immediately following graduation. Percentages reflect the percent of the graduating class who were placed into the specified organization.

Quota Student: Air Force and Space Force members who are assigned as students to AFIT-EN through the AFERB process. Although other students can be assigned to AFIT-EN, unless otherwise specified, *Quota* refers specifically to Air Force and Space Force service members who are assigned to AFIT-EN.

Recent Execution Reporting: The budget data provided in the Fact Book are based on *Recent Execution Reporting*. These data are based on the budget as of the current year, i.e. the date that the data are pulled (typically sometime during the fall).

Because some appropriations are based on multi-year funding (e.g., 3080 Procurements), appropriations for a given *Fiscal Year* may change over time, as excess funds are removed from prior year contracts or additional funds are added to prior year contracts. Funds are attached to the *Fiscal Year* in which they are allocated, rather than the *Fiscal Year* in which they are used (e.g., FY18 allocations that are not used until FY20 are counted as FY18 allocations).

Research Faculty: Personnel who hold a faculty appointment as an Assistant, Associate, or Full Research Professor in AFIT-EN (e.g., "Research Assistant Professor"). These appointments are typically non-tenure track positions and include primarily research duties, rather than instructional duties.

Resident: A student who is enrolled in a *Resident [Offering]* program that is offered on-campus at AFIT-EN. *Resident* students may also enroll in select *Distance Learning* courses, in addition to on-campus courses.

Resident Offering: An AFIT-EN course or program that is located on the AFIT campus and that includes the instructor and students in the same physical location as each other.

Retained/Retention: Students are counted as *Retained* if they were enrolled at any level (certificate, master's, PhD, or non-degree) in AFIT-EN during the quarter specified.

Retention Rate: The percentage of students in an *Entering Cohort* who were *Retained* during the time period specified.

Standard Courses: *Standard Courses* include lectures, labs, seminars, and lectures with lab and exclude thesis, dissertation, and special study courses.

Student Credit Hours: The credit hours generated by a student's enrollment in courses, including (unless otherwise specified) standard courses, special courses and thesis or dissertation research (advising) hours. For the Fact Book, *Student Credit Hours* are based on all credit hours generated by student enrollment in a course or advising section, and not necessarily those that are successfully completed (e.g., a student who enrolls for a 3 credit hour course but withdraws from the course after the *Census Date* or fails the course would still be included as enrolling for 3 credit hours). *TENX Courses*, which are intended to be used for thesis grade submission only and not for actual student coursework, are excluded.

Student Credit Hours, Advising: See *Advising Student Credit Hours*.

Student Department: The department that houses the program in which a student is enrolled. If a student is enrolled in multiple programs, the student may be affiliated with more than one department.

Student Enrollment: The number of students who are enrolled in courses at AFIT-EN during the time period specified. Students who have left AFIT-EN without completing their degree and who are not currently enrolled in courses are NOT counted in *Student Enrollments*, even if they are still working on their thesis/dissertation. Unless otherwise noted, enrolled students are counted once for each category in which they are enrolled (e.g., a student enrolled in both a master's and a certificate program will be counted in each category). Summing across different categories may result in more than 100% of the *Unduplicated Student Headcount* due to student enrollment in multiple programs.

Student FTE: The full-time equivalent number of enrolled students. *Student FTE* is calculated by summing the total number of *Full-Time Students* plus the total number of *Part-Time Student Credit Hours* divided by 9. Prior to Fall 2024, *Student FTE* was calculated by summing the total number of *Full-Time Students* plus the total number of *Part-Time Student Credit Hours* divided by either 12 (for master's, certificate, or non-degree students) or 9 (for doctoral students).

Student-to-Faculty Ratio: The average number of students per faculty member (e.g., in Fall 2019, there were 4.4 students for every 1 faculty member). The *Student-to-Faculty Ratio* is based on *Student* and *Faculty FTEs* and includes all students and faculty (excluding faculty who are classified as *Adjunct Faculty – Non-Teaching*).

Tenured/Tenure-Track (T/TT) Assistant/Associate/Full Professor: See *Assistant/Associate/Full Professor, Tenured/Tenure-Track (T/TT).*

TENX Courses: *TENX Courses* represent the final quarter of thesis research hours. Unlike other thesis research hours, a standard grade is assigned to *TENX Courses* (e.g., A, B, C). *TENX Courses* are intended to be used for thesis grade submission only and not for actual student coursework, and are therefore excluded from counts of *Student Credit Hours* reported in the Fact Book.

Thesis Research Hours: The credit hours generated by courses identified as thesis research courses (999). For the Fact Book, *Thesis Research Hours* are based on all credit hours generated by student enrollment in thesis research courses, and not necessarily those that are successfully completed (e.g., a student who enrolls for a 3 credit hour course but withdraws from the course after the *Census Date* or fails the course would still be included as enrolling for 3 *Thesis Research Hours*). *Thesis Research Hours* are the same as *Student Credit Hours*, except that *Thesis Research Hours* refer only to those generated by dissertation research courses. *TENX Courses*, which are intended to be used for thesis grade submission only and not for actual student coursework, are excluded.

Time to Degree: The number of months it took for students in the *Graduating Class* to complete their degree. The count of *Time to Degree* begins the first quarter that a student enrolls in a new master's or PhD level program at AFIT-EN ("*Master's/PhD Entrance Quarter*") and includes all time between the *Master's/PhD Entrance Quarter* and graduation, regardless of whether the student was enrolled for a specific quarter.

Unduplicated Student Headcount: The total number of enrolled students. Each student is counted only once, regardless of whether the student is enrolled in multiple programs.