



# **FLETC Instructional Capacity**

*August 9, 2019*

Fiscal Year 2019 Report to Congress



**Homeland  
Security**

*Federal Law Enforcement Training Centers*

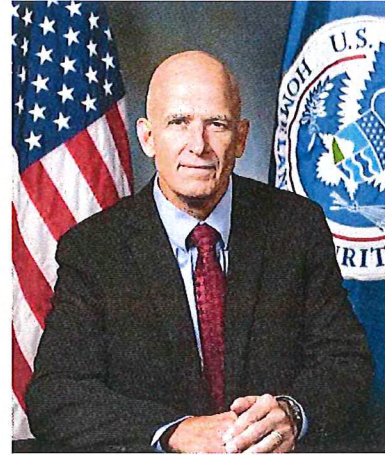
# Message from the Director

August 9, 2019

I am pleased to present the following report, “Federal Law Enforcement Training Centers Instructional Capacity,” which has been prepared by the Federal Law Enforcement Training Centers (FLETC).

This document has been compiled pursuant to language in Senate Report 115-283, which accompanies the Fiscal Year (FY) 2019 Department of Homeland Security Appropriations Act (P.L. 116-6).

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:



The Honorable Lucille Roybal-Allard  
Chairwoman, House Appropriations Subcommittee on Homeland Security

The Honorable Chuck Fleischmann  
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Shelley Moore Capito  
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Jon Tester  
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries regarding this report may be directed to me at (912) 267-2070.

Sincerely,

A handwritten signature in blue ink, which appears to read "Thomas J. Walters". The signature is stylized and fluid.

Thomas J. Walters  
Director  
Federal Law Enforcement Training Centers

# Executive Summary

Senate Report 115-283 articulates Congress's expectation that FLETC maintain training at or near facility capacity before entering into new leases or establishing new partnerships with training organizations. Accordingly, Senate Report 115-283 directs FLETC to provide a cost analysis detailing FLETC's capacity at each site as measured against annual student occupancy.

As a technical school for law enforcement professionals for more than 90 federal law enforcement agencies, FLETC is unlike any other training institution. In addition to providing service to such a large number of agencies, FLETC also is able to accommodate constantly evolving training schedules that require nearly countless combinations of hundreds of distinct training venues with varying arrival timeframes and program lengths, thus enabling these agencies to meet their operational mission. This unique character informs the relationship between FLETC's maximum capacity, the courses it delivers, and FLETC's annual student occupancy rate. With the backdrop of these factors, FLETC has developed a model for calculating its instructional capacity and showing training throughput as a proportion of that capacity.

This report represents the model that FLETC has developed to calculate instructional capacity. FLETC defined a baseline mathematical construct that accounts for the supply of available facilities. From that, FLETC derived an operational baseline that accounts for the training demands of FLETC's more than 90 federal participating organizations, which instigate complex schedules that are revised continuously to meet the requirements of FLETC's clients/partners. FLETC then utilized the mathematical and operational baselines to identify instructional capacity at each site. FLETC determined its current enterprisewide instructional capacity to be 231,803 student weeks across 4 sites, with utilization as a proportion of that capacity in FY 2018 at 90.94 percent.

The model described in this report assists FLETC in identifying training venue chokepoints in order to ascertain future requirements, and provides a realistic indicator of how much training FLETC can accommodate without taking extraordinary measures. FLETC is committed to continued analysis of its instructional capacity in order to remain a good steward of the funding that Congress appropriates to it, and to ensure that it provides the training that federal law enforcement officers and agents need to be effective in their operating environments.



# FLETC Instructional Capacity

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# I. Legislative Language

Senate Report 115-283, which accompanies the Fiscal Year (FY) 2019 Department of Homeland Security (DHS) Appropriations Act (P.L. 116-6), includes the following requirement:

Funding above the fiscal year 2018 enacted level is provided to meet a projected increase in basic training requirements. The Committee expects FLETC to maintain training at or near facility capacity before entering into new leases or establishing new partnerships with training organizations. To that end, the Committee directs FLETC to provide a cost analysis detailing, at minimum, each training center's maximum instructional capacity by course and measured against its annual student occupancy.

## II. Background

The Federal Law Enforcement Training Centers (FLETC) is unlike any other training institution. It is a technical school for federal law enforcement professionals from more than 90 federal law enforcement agencies. This unique training mission, and its associated distinctive administrative and logistics infrastructure, reflect its one-of-a-kind character. This unique character informs the relationship between FLETC's maximum instructional capacity, the courses it delivers, and FLETC's annual student occupancy rate.

Each training day, FLETC's four training delivery points deliver, assist in delivering, or host a combination of training sessions that are unique to that day; that is, that combination of training sessions may never have occurred in the past, and may never be repeated in the future. FLETC and its participating organizations currently deliver 827 distinct training programs, which could use hundreds of thousands of combinations of nearly 1,100 different training facilities across 4 training delivery points. Training program lengths range from 2 hours to 117 days. FLETC's training workload varies each year, depending on the programs that its participating organizations require.

FLETC's ability to organize training sessions to respond to the constantly changing needs of its more than 90 federal participating organizations is an essential element of its value to its clients. Surges in hiring, changes in agency priorities, changes in agency budgets, and the dynamics of recruiting and hiring all affect agency training plans. Estimating FLETC's annual capacity, therefore, is not as simple as outlining training to be delivered in light of available venues because the programmatic mix and associated schedules change from year to year as FLETC accommodates the dynamic training requirements of its clients. FLETC has developed strategies to address contingencies as they arise. Unlike a traditional university, college, or technical school, which publishes a fixed schedule up to a year in advance, FLETC publishes a "living" schedule that is changing constantly because of evolving and/or unforeseeable participating organization needs.

With the backdrop of these unique factors, FLETC has developed a model for calculating its instructional capacity and showing training throughput as a proportion of that capacity.

### III. Results

FLETC identified its instructional capacity and FY 2018 capacity utilization<sup>1</sup> rates as a proportion of capacity for each of its 4 training delivery points as shown in Table 1:

**Table 1. Site Capacity**

<b>Site</b>	<b>Instructional Capacity in Student Weeks</b>	<b>FY 2018 Capacity Utilization</b>	<b>Utilization as Proportion of Instructional Capacity</b>
Artesia, New Mexico	48,479	45,170	93.17%
Charleston, South Carolina	24,661	22,196	90.00%
Cheltenham, Maryland	16,693	10,839	64.93%
Glynco, Georgia	141,970	132,605	93.40%
Total	231,803	210,810	90.94%

FLETC developed Table 1 using the following methodology:

#### Development of Baseline Mathematical Construct

As its first step in calculating capacity, FLETC developed simulations for each training delivery point based on analysis of historical usage of facility type<sup>2</sup> at each site that would allow for maximum use of available venues. This capacity calculation resulted in two distinct models: one that applies to Glynco and Artesia and one that applies to Charleston and Cheltenham. The models differ because the types of programs that FLETC and its participating organizations conduct at these sites differ. For Glynco and Artesia, the model is based on basic training programs that utilize multiple venues at those sites. For Charleston and Cheltenham, which are host to minimal basic training, the statistical model is based on usage of venues for the programs occurring at those sites. In other words, the models for each site consist of a programmatic mix that best represents the workload at each site and maximizes use of remaining “white space.”<sup>3</sup>

Using Glynco as an example, FLETC identified the basic training programs that constitute the majority of training at that site. FLETC then calculated how many of those programs it could run before reaching a chokepoint, which for Glynco is 48-person classrooms. FLETC populated the remainder of the model with advanced training programs that would fill all remaining

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<sup>1</sup> Capacity utilization in this analysis accounts for students who were in training during FY 2018 and unrealized demand (unfilled seats). In contrast, FLETC’s published training statistics only account for students who graduated in FY 2018.

<sup>2</sup> Because FLETC has 1,089 distinct training facilities, for purposes of developing these models, FLETC grouped facilities into 10 categories as follows: 24-Person Classrooms, 48-Person Classrooms, Classrooms of “Other” Size, Breakout Rooms, Driving Ranges, Firearms Ranges, Firearms Classrooms, Mat Rooms, Mission-Specific Venues, and Tactical Venues.

<sup>3</sup> For purposes of this analysis, FLETC assumed a training schedule of 7:30 a.m. to 4:30 p.m. Monday through Friday, minus federal holidays and any other designated nontraining days.

available space. FLETC then ran a Monte Carlo simulation to develop a figure representing total student weeks and total students associated with that model as a baseline. This baseline represents a mathematical construct in which participating organization needs would align precisely with FLETC's ability to meet those needs.

It is critical to emphasize that this baseline represents a student-weeks figure that would require FLETC to have a constant number of students at the mathematical maximum. However, this circumstance is not a practical representation of reality because FLETC's training schedule is completely dependent upon demand from participating organizations. It would be highly improbable, if not impossible, to create a scenario in which demand matched the mathematical maximum every single day in a fiscal year.

## Development of Operational Baselines

Using the mathematical baseline for each training delivery point as a starting point, FLETC then developed operational baselines for each training delivery point that take into account demand for FLETC training and associated execution. To develop these operational baselines, FLETC identified the average student population (ASP) at each site for FY 2018. Using the highest monthly ASP for each site because it represents the highest demand FLETC had that year at a particular site, FLETC developed a weighting factor that it could apply to the Monte Carlo simulation. The operational baseline represents a student-weeks figure that shows how much training FLETC could do at each site as described in the process above. By utilizing this approach, FLETC creates an operational baseline that considers real-world operational issues and uncertainties.

The models account for the reality and complexity of scheduling that FLETC faces, which makes it virtually impossible for FLETC to fill all "white space." Because the mixture of programs FLETC delivers each year is entirely on the basis of demand, and because those combinations change each year on the basis of needs, FLETC's scheduling personnel constantly work to fit in as much training as possible based on available venues. This occurrence inevitably means that there will be "white space," but FLETC cannot fill that "white space" unless a required program fits perfectly into it.

The nature of the training that FLETC conducts dictates that there always will be venues not in use at particular times. For example, Program A may require firearms ranges on Monday, but not on Tuesday of a given week. However, that does not mean necessarily that FLETC could utilize those firearms ranges on Tuesday unless it could determine that another program running could use them on that specific day. In this way, it is inevitable that FLETC will have "white space" among its training venues, because demand for facilities is a function of which training programs participating organizations require and when. Other reasons for "white space" include training workload that is distributed unevenly throughout the year because of budget processes, inherent inefficiencies emerging based on program sequencing necessary to maintain training quality, and the creation of *ad hoc* adjustments based on various conditions ranging from clients' ability to hire to adverse weather conditions. FLETC leverages its automated scheduling tool to fit in as much training as it can, in a manner that maximizes utilization of available facilities and alters course sequencing when at all possible without degrading quality of training. However,



there inevitably will be days when particular venues are not in use because the particular programmatic mix that day does not require them.

Using Glynco as an example, the first chokepoint is again 48-person classrooms. However, the operational baseline accounts for the fact that even though a firearms range may be empty at the point that Glynco reaches maximum usage of its primary constraint, FLETC could not fill that space with more basic training necessarily. FLETC has to account for the venue requirements associated with the programmatic mix. The programmatic mix is developed entirely on the basis of demand.

The operational baselines for each site represent FLETC's calculation of how much training it could do based on myriad factors. Note, since this calculation is weighted on demand in FY 2018, these numbers are only effective for FY 2018.

## Development of Instructional Capacity

Having developed mathematical and operational baselines, the final step was for FLETC to translate these figures to instructional capacity. The last piece to consider was how to account for programs that are not filled to maximum student capacity. For example, while a particular program is scheduled to hold 48 students, fewer students may arrive for the start of class. Additionally, some students will not graduate at the end. FLETC makes the business decision to run a program with, for example, 42 out of the maximum 48 students, because it is critical to ensure that FLETC's federal participating organizations can deliver new law enforcement personnel to the field. The qualitative benefit or public good of training new law enforcement personnel so that they can perform their agencies' missions outweighs the inefficiency of running a class at less than capacity. However, those six empty seats leave capacity that it is impossible for FLETC to fill. These unfilled seats must be accounted for when calculating instructional capacity and capacity utilization as a proportion of it. In other words, the venues in use for the unfilled program(s) are themselves 100 percent in use even though fewer students are in the venue than expected. For example, FLETC cannot use the empty spaces left on the firing range or the empty seats in the classroom for other students who are enrolled in an entirely different program.

By weighting the original Monte Carlo-derived mathematical construct, FLETC developed instructional capacities for each site as represented in Table 1. FLETC then added in the unrealized demand (unfilled seats) to represent FY 2018 capacity utilization as compared to the instructional capacity at each site.

## IV. Analysis/Discussion

FLETC's instructional capacity outlined in Section III emerges from analysis of mathematical constructs that account for total supply of venue space available at FLETC and operational baselines that account for participating organization demand. Both mathematical constructs and operational baselines account for programmatic mixes typical of each site.

The statistical models that FLETC has developed demonstrate that specific venue types represent primary constraints at each training delivery point. For example, at Glynco, the first chokepoint for basic training is 48-person classrooms, which had an FY 2018 utilization rate of approximately 93 percent. Once FLETC reaches the maximum availability of 48-person classrooms, it must implement extraordinary and less-than-ideal methods in order to deliver additional basic training programs. This occurrence has the potential to compromise the quality of the training. Congress's recent support to FLETC for constructing additional training venues, including new 48-person classrooms, will help to alleviate this constraint at Glynco in coming years, and will result in increased overall capacity to conduct basic training.

FLETC's operational baselines describe capacity utilization at each training delivery point within routine budget, staffing, administrative, and logistics parameters. Under these conditions, for example, 10 percent of dormitory rooms are scheduled offline, allowing for occasional high-volume days of overlap and for routine repair and maintenance of dormitory rooms. Additionally, typical conditions allow for FLETC staff to schedule routine leave, travel, and training. In FLETC's history, there have been times when these conditions are overshadowed by exigent needs, creating peak conditions during which FLETC can take extraordinary measures to meet participating organization training requirements. Under these conditions, FLETC invokes reasonably attainable strategies such as temporarily hiring more staff, utilizing secondary and tertiary training venues, amending service contracts to enhance throughput, and creating evening and weekend training shifts. The most recent example of peak conditions occurred when DHS launched the Secure Borders Initiative in 2005, with training reaching a peak in 2009. FLETC would invoke similar measures if peak conditions arose again before entering into new lease agreements or establishing new partnerships with training organizations.

As FLETC considers its future training venue requirements and associated budget requests, it continues to identify requirements for two distinct purposes: increasing capacity and improving capabilities. FLETC evaluates its participating organizations' future training requirements in comparison to venue chokepoints in order to identify venues needed to increase capacity. Likewise, FLETC continuously assesses its training in collaboration with its participating organizations in order to identify modifications or new training venues that will provide the highest quality training experience.

FLETC has requested funding in recent years primarily intended to alleviate identified constraints in order to increase capacity to meet increasing training demand. FLETC has requested funding also for venues primarily intended to improve the quality of training, not solely to increase overall capacity. FLETC anticipates that training programs will continue to require realistic venues that mimic conditions in the field, and therefore, improving capability

will continue to be a parallel need to increasing capacity. For example, in recent budget years, FLETC requested funding for tactical training venues.

## V. Conclusion

FLETC continues to refine its datasets and apply statistical models to analyze facility utilization in order to maximize utilization of available resources and to make sound data-driven decisions. FLETC has created a model for measuring instructional capacity at each training delivery point that utilizes both mathematically constructed and operational baselines that account for the supply and demand sides of capacity. This model assists FLETC in identifying training venue chokepoints in order to ascertain future requirements, and provides a realistic indicator of how much training FLETC can accommodate without taking extraordinary measures. FLETC is committed to continued analysis of its instructional capacity in order to remain a good steward of the funding that Congress appropriates to it, and to ensure that it provides the training that federal law enforcement officers and agents need to be effective in their operating environments.

## Appendix: Abbreviations

<b>Abbreviation</b>	<b>Definition</b>
ASP	Average Student Population
DHS	U.S. Department of Homeland Security
FLETC	Federal Law Enforcement Training Centers
FY	Fiscal Year