



Research Brief

EMT, Fire Academy, Paramedic, and Respiratory Program Efficiency and Success Data from 2014-15 to 2016-2017

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Purpose of Brief

The purpose of this brief is to provide data to help inform the discussion about whether to increase the reassigned time for the EMT Program Director.

Summary of Findings

- The Respiratory (123) and EMT (95) programs consistently generate the most FTES
- The Respiratory (11) and the Paramedic (6) programs generated the most FTEF
- The campus efficiency target is 17.5, which was exceeded by the EMT program in 2016-2017 (17.7)
- The other three programs had an FTES/FTEF ratio from 11.1 to 11.5 in the 2016-2017 primary term year
- The EMT program has the lowest 75/25 ratio at 29.6 followed by the Respiratory program at 59.3
- Both the Fire and Paramedic programs exceed the 75% target for the 75/25 ratio at 78.5 and 79.1
- The EMT program had over a thousand grades on record (i.e. enrollments) in 2016 followed by the Respiratory (n = 392) program

Overview

The EMT Program is exploring the possibility of increasing the reassigned time for the EMT Program Director. To help inform the discussion of whether to increase the reassigned time for the EMT Program Director, the EMT Program Director wanted to examine the program data for the other CTE programs in relation to the EMT Program. Accordingly, this report includes the following program data that the Faculty Chairs have historically used to inform the prioritization of faculty hires from 2014-2015 to 2016-2017: total FTEF, number of grades on record, percent of FT faculty, FTES/FTEF ratio (same as WSCH/FTEF ratio), FTES, and course success. Other information such as accreditation requirements may also help to inform the discussion about whether to increase the reassigned time of the EMT Program Director. The following programs with program directors were included to help inform the discussion: EMT, Fire Academy, Paramedic, and Respiratory Care.

Methodology

Program review was used to identify the courses in each of the following CTE programs: EMT, Fire Academy, Paramedic, and Respiratory Care (see Table 1).

Table 1: List of Courses by CTE Program.

EMT	Paramedic		Fire Academy
EMS-020	EMS-150	EMS-155	FIRET-049
EMS-021	EMS-151	EMS-156	FIRET-115
EMS-021X20	EMS-152	EMS-157	FIRET-902X4
EMS-022	EMS-153	EMS-160	
EMS-023	EMS-154	EMS-161	
EMS-025			

Respiratory				
RESP-051	RESP-109AX2	RESP-136	RESP-206	RESP-231
RESP-051X4	RESP-109BX2	RESP-137	RESP-207	RESP-232
RESP-101	RESP-110X4	RESP-138	RESP-208	RESP-233
RESP-102	RESP-112	RESP-138X4	RESP-209A	RESP-234
RESP-103	RESP-130	RESP-139	RESP-209AX2	RESP-235
RESP-104	RESP-131	RESP-201	RESP-209B	RESP-236
RESP-105	RESP-132	RESP-202	RESP-209BX2	RESP-237
RESP-106	RESP-133	RESP-203	RESP-211X4	RESP-238
RESP-108	RESP-134	RESP-204	RESP-218	RESP-238X4
RESP-109A	RESP-135	RESP-205	RESP-230	

The data provided in Tables 2 and 2A illustrate the total FTES, total FTEF, the FTES / FTEF ratio, the 75 / 25 ratio, the number of grades on record (GOR), and the course success rate for the fall and spring semesters only. **FTES** stands for Full-Time Equivalent Student and is the equivalent of one student taking courses totaling 15 hours per week (e.g.: five 3-unit courses) each semester for two semesters. **FTEF** stands for Full-Time Equivalent Faculty and refers to the load factor associated with each section assignment. For instance, one weekly census 3-unit section that meets 3 hours a week has a load factor of .20 or 20%. A full-time load in one primary term is considered to be 1 FTE or five 3-unit sections. FTEF varies depending on the unit value of a course. **FTES / FTEF** is another way to view productivity for instruction. An FTES / FTEF ratio of 17.5 is the equivalent of the WSCH / FTEF ratio of 525, and signifies that the discipline served 17.5 full-time students for every one full-time faculty. The 75 / 25 ratio excludes overload in the calculation. Part-Time FTEF + Full-Time FTEF is the **Total credit FTEF** excluding overload. **Full-Time FTEF ÷ the Total FTEF is the ratio of credit FTEF taught by full-time faculty while excluding overload.** (Note: The Total FTEF in Table 2 includes overload.) The number of **Grades on Record (GOR)** represents the number of A, B, C, D, F, P, NP, and I grades earned in each program. **Course success rate** is the number of GOR divided by the number of successful grades (i.e. A, B, C, or P) multiplied by 100.

Findings

Table 2 illustrates the total FTES, total FTEF, and the FTES/FTEF efficiency rate. The results indicate that the Respiratory and EMT programs consistently generate the most FTES. Specifically, in 2016-2017 Respiratory generated 123 FTES and EMT generated 95. Respiratory had the most FTEF with 11 in 2016-2017, followed by the Paramedic program with 6, EMT with 5, and Fire with 4. The most efficient program was EMT. The EMT program consistently has an FTES / FTEF efficiency rate of 17.3 or higher. The campus efficiency target is 17.5, which was exceeded by the EMT program in 2016-2017. The other three programs had an efficiency rate from 11.1 to 11.5 in the 2016-2017 primary term year.

Table 2: Total FTES, FTEF, and FTES/FTEF Ratio List Data by CTE Program from 2014-2015 to 2016-2017.

CTE Program	Total FTES			Total FTEF			FTES/FTEF		
	14-15	15-16	16-17	14-15	15-16	16-17	14-15	15-16	16-17
EMT	100	100	95	5	6	5	20.1	17.3	17.7
Fire	56	35	47	5	4	4	12.1	8.5	11.1
Paramedic	85	75	73	7	6	6	12.6	13.2	11.5
Respiratory	109	100	123	12	11	11	9.3	9.3	11.2

Table 2A illustrates the 75 / 25 ratio, number of grades on record (GOR), and the course success rate. The results indicate that the EMT program has the lowest 75/25 ratio at 29.6 followed by the Respiratory program at 59.3. Both the Fire and Paramedic programs exceed the 75% target at 78.5 and 79.1. The EMT program had over a thousand grades on record (i.e. enrollments) in 2016 followed by Respiratory (n = 392), Paramedic (n = 259), and the Fire Academy (n = 51). The course success rate for all four programs ranges from 86% to 96%. The Fire Academy had the highest course success rate at 96%, followed by Respiratory (95%), EMT (90%), and the Paramedic program (86%).

Table 2A: 75/25 Ratio, Number of Grades on Record, and Course Success Rates by CTE Program from 2014-2015 to 2016-2017.

CTE Program	75/25 Ratio			# of Grades on Record (GOR)			Course Success Rate		
	14-15	15-16	16-17	14-15	15-16	16-17	14-15	15-16	16-17
EMT	35.0	25.5	29.6	1,046	1,024	1,006	87.5	86.6	90.1
Fire	49.1	87.4	78.5	83	39	51	96.4	94.9	96.1
Paramedic	83.1	81.4	79.1	309	243	259	90.6	93.8	86.1
Respiratory	73.9	57.6	59.3	416	392	482	92.2	95.2	94.6