

Descriptive Tables

Table 1. First-Attempt Pass Rates for WI and the Nation

Course Completion Year	WI 1 st Time Pass Rate	National 1 st Time Pass Rate	p-value (Chi-square)
2014	69% (834/1,206)	67%	0.08
2015	68% (788/1,154)	66%	0.07

Summary: There was no difference in the first-time pass rates between EMT candidates from WI and the national first-time pass rates for the classes of 2014 and 2015.

Table 2. First-Attempt Average Test Score for WI and the Nation

Course Completion Year	WI 1 st Attempt Avg Theta	National 1 st Attempt Avg Theta	p-value (t-test)
2014 (n=1,206)	1.43 (95% CI: 1.39-1.46)	1.39 (95% CI: 1.38-1.39)	0.030
2015 (n=1,154)	1.46 (95% CI: 1.43-1.50)	1.40 (95% CI: 1.40-1.41)	0.003

Summary: The average overall theta for candidates from WI was greater than the national average in 2014 and 2015.

Table 3. Cumulative Third Attempt Pass Rate for WI and the Nation

Course Completion Year	WI Cumulative 3rd Time Pass Rate	National Cumulative 3rd Time Pass Rate	p-value (Chi-square)
2014	82% (983/1,206)	79%	0.03
2015	80% (918/1,154)	78%	0.16

Summary:

The cumulative third-time pass rate among candidates from WI was higher than the national average in 2014 and there was no significant difference in 2015.

High and Low Performing Program Analysis

**Methods Note: Using the 2013 national average first-time pass rate as a benchmark, programs were classified as high performing if first time pass rate was >68%

Table 4. Number of High and Low Performing Programs in WI

Course Completion Year	Total # programs with 1 or more candidates testing	High-Performing	Low -Performing
2014	23	13 (57%)	10 (43%)
2015	23	18 (78%)	5 (22%)

Table 5. Proportion of Students Graduating from High and Low Performing Programs in WI

Course Completion Year	High Performing	Low Performing
2014	53% (639/1,206)	47% (567/1,206)
2015	89% (1,025/1,154)	11% (129/1,154)

Table 6. Odds of Passing First Attempt if Graduating from a High Performing Program in WI

Course Completion Year	OR	95% CI	p-value (LR test)
2014	2.77	2.15-3.57	<0.001
2015	2.62	1.81-3.80	<0.001

Table 7. First Attempt Average Thetas and Pass Rates by High and Low Performing Programs

Course Completion Year	1 st Attempt Test Theta High-Perf Only Avg (95% CI)	1 st Attempt Test Theta Low-Perf Only Avg (95% CI)	p-value (t-test)
2014	1.58 (1.54-1.62)	1.25 (1.20-1.31)	<0.001
2015	1.50 (1.46-1.53)	1.20 (1.07-1.33)	<0.001

Table 8. First Attempt Pass Rates by High and Low Performing Programs

Course Completion Year	1 st Attempt Pass Rate High-Perf Only	1 st Attempt Pass Rate Low-Perf Only	p-value (Chi-square)
2014	58% (328/567)	79% (506/639)	<0.001
2015	48% (62/129)	71% (726/1,025)	<0.001

CONTENT AREA THETA ANALYSIS**Table 9. First Attempt Content Area Average Thetas for WI by High and Low Performing Programs**

Course Completion	High-Performing ARV (mean score[95%CI])	Low-Performing ARV (mean score[95%CI])	p-value (t-test)
2014	1.62 (1.56-1.68)	1.26 (1.19-1.34)	<0.001
2015	1.50 (1.45-1.55)	1.15 (0.99-1.31)	<0.001

Course Completion	High-Performing Cardio (mean score[95%CI])	Low-Performing Cardio (mean score[95%CI])	p-value (t-test)
2014	1.61 (1.55-1.66)	1.26 (1.20-1.32)	<0.001
2015	1.52 (1.47-1.57)	1.25 (1.09-1.41)	<0.001

Course Completion	High-Performing Trauma (mean score[95%CI])	Low-Performing Trauma (mean score[95%CI])	p-value (t-test)
2014	1.60 (1.54-1.66)	1.30 (1.23-1.37)	<0.001
2015	1.54 (1.49-1.60)	1.23 (1.06-1.39)	<0.001

Course Completion	High-Performing Medical (mean score[95%CI])	Low-Performing Medical (mean score[95%CI])	p-value (t-test)
2014	1.63 (1.57-1.70)	1.24 (1.16-1.32)	<0.001
2015	1.57 (1.52-1.63)	1.21 (1.03-1.38)	<0.001

Course Completion	High-Performing Ops (mean score[95%CI])	Low-Performing Ops (mean score[95%CI])	p-value (t-test)
2014	1.59 (1.52-1.66)	1.41 (1.33-1.50)	0.002
2015	1.51 (1.45-1.57)	1.37 (1.22-1.53)	0.109

Table 10. First Attempt Content Area Average Thetas for WI compared to the National Average

Course Completion	WI ARV (mean score[95%CI])	National Avg ARV (mean score[95%CI])	p-value (t-test)
2014	1.45 (1.40-1.50)	1.40 (1.39-1.41)	0.052
2015	1.46 (1.41-1.51)	1.41 (1.40-1.42)	0.063

Course Completion	WI Cardio (mean score[95%CI])	National Avg Cardio (mean score[95%CI])	p-value (t-test)
2014	1.44 (1.40-1.48)	1.42 (1.41-1.42)	0.265
2015	1.49 (1.44-1.53)	1.45 (1.44-1.46)	0.122

Course Completion	WI Trauma (mean score[95%CI])	National Avg Trauma (mean score[95%CI])	p-value (t-test)
2014	1.46 (1.42-1.51)	1.41 (1.40-1.41)	0.020
2015	1.51 (1.46-1.56)	1.44 (1.43-1.44)	0.006

Course Completion	WI Medical (mean score[95%CI])	National Avg Medical (mean score[95%CI])	p-value (t-test)
2014	1.45 (1.40-1.50)	1.44 (1.43-1.44)	0.714
2015	1.53 (1.48-1.58)	1.44 (1.43-1.44)	<0.001

Course Completion	WI Ops (mean score[95%CI])	National Avg Ops (mean score[95%CI])	p-value (t-test)
2014	1.51 (1.45-1.56)	1.42 (1.41-1.42)	<0.001
2015	1.50 (1.44-1.55)	1.45 (1.45-1.46)	0.119

VOLUNTEER STATUS ANALYSIS

Methods Note: Volunteer status is indicated by a candidate at the time an NREMT profile is established through the website. This may not be updated to reflect current place of practice.

Missing Data Note:

In 2014, 501/1206 (41.5%) of candidates were missing volunteer status data.

In 2015, 561/1154 (48.6%) of candidates were missing volunteer status data.

Table 11. Proportion of Paid and Volunteer WI Candidates

Course Completion Year	Paid	Volunteer
2014	45% (n=320)	55% (n=385)
2015	50% (n=299)	50% (n=294)

Table 12. First-Time Pass Rates for Paid vs. Volunteer WI Candidates

Course Completion Year	Paid 1 st Time Pass Rate	Volunteer 1 st Time Pass Rate	p-value (Chi-square)
2014	70% (225/320)	73% (282/385)	0.388
2015	66% (197/299)	71% (209/294)	0.173

Summary: There was no difference in first-time pass rates for paid and volunteer candidates from WI who graduated in 2014 or 2015.

Table 13. Test Thetas for Paid vs. Volunteer WI Candidates

Course Completion Year	Paid 1 st Time Test Theta	Volunteer 1 st Time Test Theta	p-value (t-test)
2014	1.44 (95% CI: 1.37-1.51)	1.48 (95% CI: 1.42-1.54)	0.396
2015	1.42 (95% CI: 1.34-1.49)	1.49 (95% CI: 1.41-1.57)	0.160

Summary: There was no difference in the overall test thetas for paid vs. volunteer candidates from WI who graduated in 2014 or 2015.

Table 14. Odds Ratios for Passing First Attempt for Volunteer vs. Paid

Course Completion Year	OR (Paid=Referent)	LR p-value
2014	1.16 (0.83-1.61)	0.388
2015	1.27 (0.90-1.80)	0.173

Summary: The odds of WI candidates passing first-attempt did not differ by volunteer status for 2014 or 2015 graduates.

Table 15. Proportion of Paid and Volunteer Candidates that Attended High vs. Low Performing Programs

	High-Performing	Low-Performing	p-value (Chi-square)
Course Completion 2014			0.818
Volunteer	54% (n=206)	46% (n=179)	
Paid	54% (n=174)	46% (n=146)	
Course Completion 2015			0.007
Volunteer	79% (n=231)	21% (n=63)	
Paid	87% (n=260)	13% (n=39)	

Summary: No difference in the proportion of class of 2014 WI candidates that attended high vs. low performing programs by volunteer states. For class of 2015, a significantly greater proportion of paid candidates attended high-performing programs.

Table 16. First-Time Pass Rates among High-Performing Programs by Paid/Volunteer Status

	Paid	Volunteer	p-value (Chi-square)
2014	79% (138/174)	81% (167/206)	0.668
2015	69% (179/260)	77% (178/231)	0.042

Summary: Among WI candidates that attended high-performing programs, for 2014 graduates there was no difference in first-time pass rates. For 2015 graduates, the volunteers at high-performing programs had a significantly higher first-time pass rate.

Table 17. First-Time Pass Rates among Low-Performing Programs by Paid/Volunteer Status

	Paid	Volunteer	p-value (Chi-square)
2014	60% (87/146)	64% (115/179)	0.389
2015	46% (18/39)	49% (31/63)	0.764

Summary: Among those who attended low-performing programs, there was no difference in first-time pass rates for WI candidates by volunteer status for 2014 or 2015 graduates.

Table 18. Multivariable Odds Ratio for First Attempt Pass after Controlling for High Performing Program Status

Course Completion Year	OR* (Paid=Referent)	LR p-value
2014	1.17 (0.84-1.64)	0.353
2015	1.43 (1.00-2.05)	0.051

*Controlling for high-performing program status.

Summary: After controlling for high-performing program status, there was no difference in odds of passing first attempt for volunteer compared to paid candidates from WI graduating in 2014 or 2015.