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So, How's it Going?

Update on the NREMT CBT Transition

Gregg S. Margolis, PhD, NREMT-P

- It has been an “exciting” couple of months
- December was one of our busiest paper-and-pencil months in history
- January required managing a dual system



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Thank You!!!!

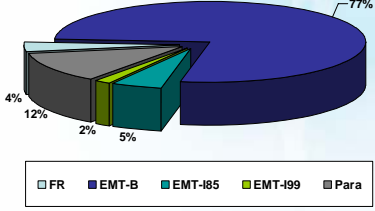
For all of your support
and patience!!!



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Jan-June 2007

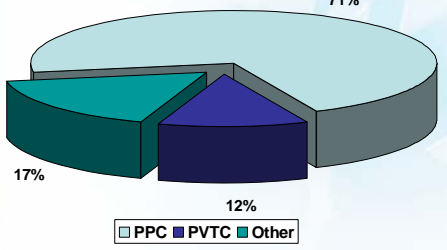
- 34,914 exams delivered



Level	Percentage
FR	4%
EMT-B	12%
EMT-I&S	5%
EMT-I99	2%
Para	77%

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Exam Locations




Location	Percentage
PPC	17%
PVTC	12%
Other	71%

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Results Delivery

- Exam results have been available to >99% of candidates within 2 business days.
- Credentials are sent to passes
- Failure letter provides detailed feedback to assist in preparation for retesting



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Item Response Theory (IRT)

A statistical way to determine ability based on the fact that the probability you will answer a question correctly is related to your ability and the difficulty of that question.



Dilemma...

Percent of items correct is no longer a meaningful number.

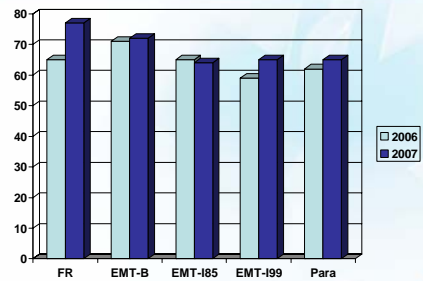


Reports

- We are committed to providing *meaningful data* to individuals and educational programs so they can *improve performance*
- Current reports are working, but we will evaluate and modify



Pass Rates



Pass Rates

	Paper and Pencil Pass Rate ¹	National CBT Pass Rate ²
EMT-Basic	71%	72%
Paramedic	62%	64%

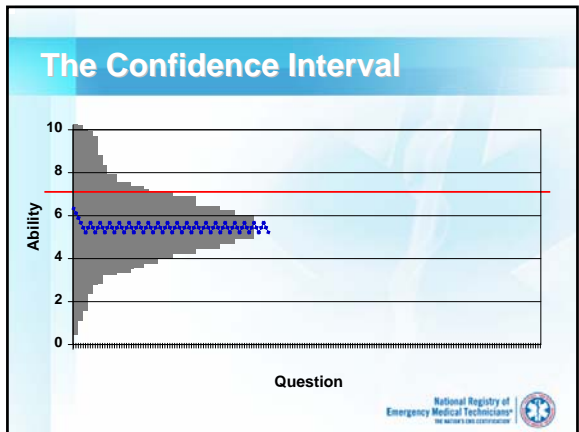
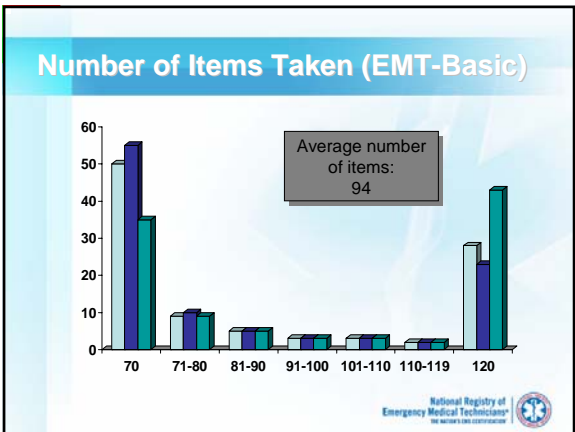
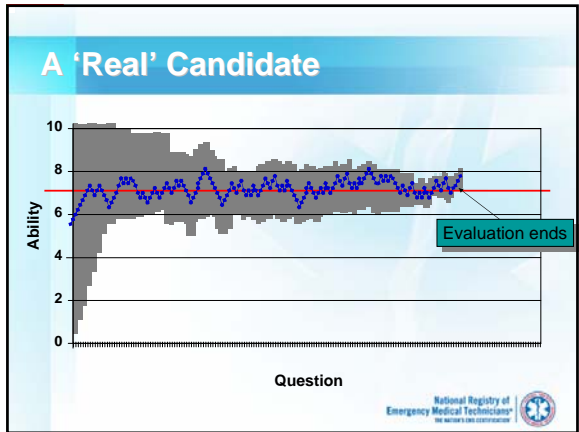
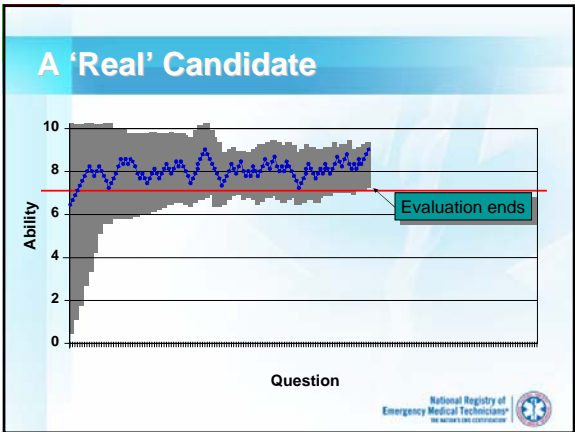
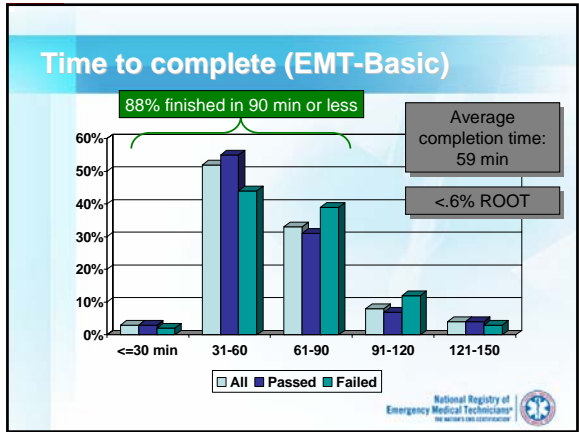
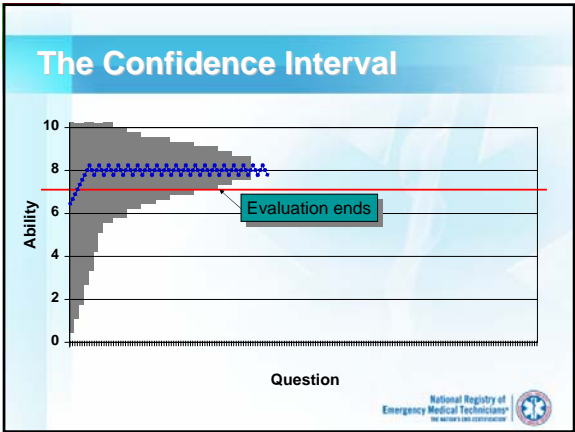
¹ 2006 Annual Report
² National Data: Jan1-May 31, 2007

When is the test over?

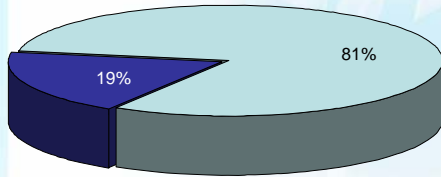
- The computer determines with at least 95% certainty that the candidate's ability is either above or below the passing standard, OR
- The candidate receives a maximum number of items, OR
- The candidate runs-out-of-time*.

*=infrequent





Candidates who took 70 Items



Passed Failed

Trouble Spots

Level	Area (% Below the passing standard)
EMT-Basic	
Paramedic	

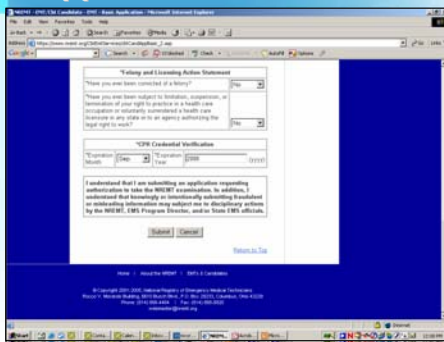
Trouble Spots

Level	Area (% Below the passing standard)
EMT-Basic	Trauma (27.4%) OB/Gyn & Peds (26.3%)
Paramedic	OB/Gyn & Peds (36.3%) Airway (35.5%) Cardiology (35.1%)

The Application



The Application

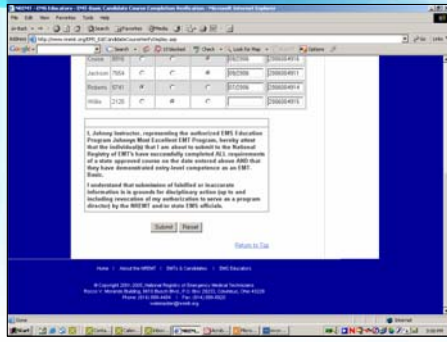


Candidate Satisfaction-Application

% who rated the on-line application as easy or very easy	91%
% able to complete the application in <20 min	89%
% who understood the directions for completing the application	93%
% who rated the application as good or excellent	83%
% who rated the ATT as good or excellent	81%



Verifying student graduation



Candidate Satisfaction-Scheduling

% who rated the phone service as good or excellent	90%
% who rated the process of scheduling the exam as easy or very easy	82%
% satisfied with the date of their appointment	95%



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Candidate Satisfaction-Access

% able to test on their preferred day	55%
% able to test within 2 weeks of their preferred day	89%
% able to test at their preferred testing center	94%
% able to test on their preferred day of the week	90%
% able to test at their preferred time of day	90%



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Candidate Satisfaction-Access

% who drove 25 miles or less to test	48%
% who drove more than 100 miles to test	5%



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Candidate Satisfaction-Exam Experience

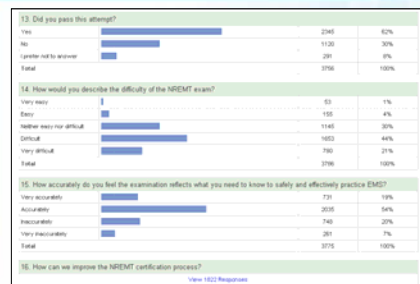
% that rated the verification of identity as good or excellent	94%
% that rated the knowledge of staff as good or excellent	91%
% that rated the professionalism of staff/proctors as good or excellent	94%
% that rated the testing environment as good or excellent	91%



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Candidate Satisfaction Survey



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Candidate Satisfaction Survey

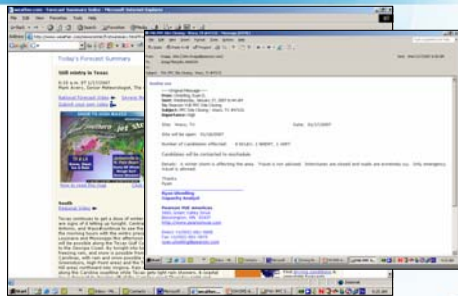
	Total	How would you describe the difficulty of the NREMT exam?				What level NREMT Exam did you take?				Did you pass this attempt?		
		Pass	Diff. to pass	Diff. to pass	Diff. to pass	Basic	Intermediate	Advanced	Paramedic	Yes	No	Unable to answer
Very easy	3700	128	2730	150	150	49	227	2340	1117	217	1	217
Easy	35	2	40	22	22	4	49	41	1	1	1	1
Neither easy nor difficult	1105	4	124	71	71	22	11	142	6	1	1	1
Difficult	6176	320	4576	876	876	103	225	1776	6176	118	118	118
Very difficult	1148	10	974	70	70	10	124	940	10	10	10	10
Total	16648	484	13291	1171	1171	186	302	1432	484	132	132	132
Very easy	6176	34.6%	44.2%	40.2%	40.2%	11.5%	13.7%	10.6%	34.6%	20.5%	20.5%	20.5%
Easy	35	0.2%	0.2%	0.2%	0.2%	0.1%	0.3%	0.1%	0.2%	0.1%	0.1%	0.1%
Neither easy nor difficult	1105	6.6%	8.1%	7.5%	7.5%	3.1%	1.3%	1.1%	6.6%	0.7%	0.7%	0.7%
Difficult	6176	37.2%	54.7%	51.3%	51.3%	6.3%	15.1%	11.6%	37.2%	7.6%	7.6%	7.6%
Very difficult	1148	6.9%	16.2%	9.5%	9.5%	1.5%	3.2%	2.2%	6.9%	1.3%	1.3%	1.3%

Lessons Learned

- We are, or have, managed about 250 "incidences" from the first 5 months (35,000 exams)
- This is *no more than* occurred with paper and pencil exams
- We expect our incident rate will decrease with experience



Stuff Happens



Lessons Learned

- During the first week of launch, a few questions with "old CPR standards terminology" were in the live pool
 - Items were immediately identified and "masked"
 - Our psychometric team performed a detailed analysis
 - No passing candidate failed
 - Three candidates who were informed they failed were offered no-cost retests since removal of those questions resulted in insufficient data to definitively determine competency.



Lessons Learned

- Army testing site at Ft. Sam Houston admitted and tested two soldiers who had the same name as civilian candidates.
- Both passed
- NREMT certification was issued to two unmeasured individuals
- Corrective action:
 - Both are relinquishing all credentialing materials and will be retested
 - Counseling of Army test administrators
 - Possible programming solution enabling the Army to only "see" military candidates



Lessons Learned

- Two situations in which unqualified candidates were authorized to test and/or tested:
 - MI: An instructor's certification expired during the course
 - FL: Approximately 20 candidates tested without state office approval



Lessons Learned

- Report for second time failures was a duplicate of first attempt report (approx 10).



Lessons Learned

- Some people don't trust computers
- We have developed a CBT Score Verification Report
- \$30.00 processing and handling fee



Lessons Learned

- Candidates recollection of the details of their exam is horrible
 - Number of questions
 - Duplicate questions



Other issues

PPCs
VS.
PVTCs



Testing Locations

- 314 Testing Locations Nationwide
 - 198 Pearson Professional Centers
 - 116 Pearson VUE Testing Centers
 - 24 "new" sites
 - 29 leads in progress



Those pesky green dots



2.6.2006

Other issues

- Case of twins taking exams
- IDs/name changes
- Passwords/logins
- Assessment exams
- Cancellations/refunds



Telephone calls

- We are fielding more phone calls than ever
- By far, the most common issue...



“I forgot my password ...”



The future of testing in EMS

**This is an
exciting time
to be in EMS!**

- Communication
- Research
- Data
- Expandability (eventually will incorporate EMS agencies, training officers, and medical directors)
- Future testing methodologies



**Thank you for all you did to
make this transition a success!!!**

