

# CTR Exam Passing Rate

GAYLE G. CLUTTER, R.T., CTR

## NCRA'S COUNCIL ON CERTIFICATION ADMINISTRATOR

There has been discussion recently about the percentage of candidates passing the CTR examination. A Council on Certification article in the spring 2005 issue of *The Connection* reported that in 2004, overall, 63% of candidates passed the exam. A graph presented at the April NCRA Annual Conference indicated a steady decline in the percentage of candidates who have passed the exam since it was first given in 1983. In 1983, the percent passing was close to 90%. The percent passing had declined over the years and in 1994 there was about 75% passing rate. If you look at the last 10 years (1995-2004), the average percent passing the examination is 65% (Fig. 1).

Further, a CDC statistician ran a test of linear regression on the 10 years of passing rates to see if the year-to-year fluctuations were statistically significant.

The conclusion of data analysis showed those passing the national exam had remained consistent over the past 10 years. The line is essentially flat with a p-value of .087. There is also no decrease in the percent passing between the first five-year period and the second five years, with the average percent passing of 65% between 1995 and 1999 and 64% between 2000 and 2004.

NCRA has ensured continuity in the testing process over the years by maintaining the same testing company, Professional Testing Corporation (PTC), since 1985. The exam content has been similar to those in previous years. In addition, PTC assigns a "degree of difficulty" rating to each question that has been used previously, based on how often it has been answered correctly. This allows PTC to ensure each test has an overall difficulty rating equal to previous examinations.

The first computer-based examination was given in 2004, and it is encouraging to see that the average passing percentage did not change. In addition, in 2004, the Council completed a Job Task Analysis (JTA) survey to ensure that the certification examination content

remains valid and applicable to the Registry field—in other words, that we are testing at the right level on the right topics. The survey results showed that the content and the current weighting of the examination is appropriate.

The number of candidates retaking the national exam has a negative affect on the total passing percentage, because those who have to retake the national exam more than once versus those who pass the first time (fig. 2.) The average percent for those candidates who pass the first time in the past 10 years is 74%. When the national exam was introduced in 1983, it was initially offered once a year. Because of a one year delay in re-taking the exam for those who did not initially pass, they were able to have more time to study and continue with hands-on experience. This method was used for five years before NCRA decided to offer the exam twice a year.

It has been suggested that the percent passing rate may be influenced by number of changing standards added to examinations. In 2004, the AJCC 6th Edition was added, and it is interesting to note that candidates scored slightly higher in the staging category in 2004 than they had in the previous three years (Fig. 3). Also in 2004, the exam included the new FORDS standards. Again, scores in the Registry Operations category, which included FORDS questions, remained stable. For March 2005, Collaborative Staging scheme was added to the examination. Amongst 2005 exam candidates, there was a 73% passing rate in the Staging category. Since the Collaborative Staging scheme is a new addition, it will take some time to see how the staging category passing rate will be affected. What is interesting is that Anatomy and Physiology category which has not changed, has one of the lowest scores, second only to Statistics and Epidemiology category.

The question has also been raised as to whether having a higher educational background might improve a candidate's ability to pass the certification examination. From 1983 to 1992, approximately 40% of the candidates indicated that high school was the highest academic level they completed. Between 1993 and 1997, high school represented approximately 30% of the candidates. However, in 1998, the category of "some college" was added, and the percentage for high school only dropped to approximately 10%, where it has remained. For the first 10 years, an average of 52% of the candidates indicated that they had an Associate's Degree or higher. In the past 12 years, that average percentage has been 58%. This has not changed when looking at the past five years.

There may be many reasons why we see a decrease in the passing rate between the first 10 years and the last 10 years. One reason might be that the candidates who took the first examinations included Registrars with many years of experience who had waited a long time for

the exam. NCRA does not have information readily available on the number of years of experience for the candidates in the early years of the examination, but the pattern for the past four years has remained stable (Fig. 4). Candidates with less than one year of experience come from the formal education programs.

NCRA's Council on Certification will continue to monitor the passing rates to assist in identifying trends and needs of the CTR Exam candidates. ●

Fig. 1: Average Passing Percentage, 1995-2004

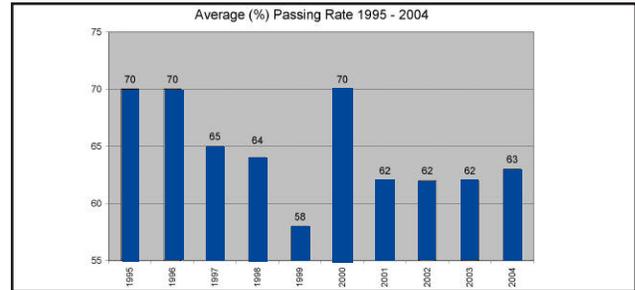


Fig. 2: Average Passing Percentages by First-time and Repeat Candidates

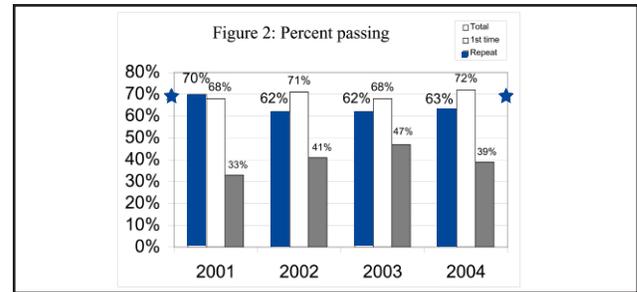


Fig. 3: Average Percent Correct by Subject Category

	2001	2002	2003	2004
<b>Reg Ops</b>	76%	77%	77%	77%
<b>Computer</b>	76%	80%	79%	79%
<b>A &amp; P</b>	76%	71%	72%	71%
<b>Abstracting</b>	76%	73%	74%	74%
<b>Stats</b>	65%	65%	63%	61%
<b>ICDO</b>	77%	74%	72%	76%
<b>Staging</b>	76%	75%	72%	77%
	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>

Fig. 4: Percentage of Candidates by Years of Experience

	2001	2002	2003	2004
<1	9%	6%	9%	8%
1 - 2	<b>39%</b>	<b>41%</b>	<b>40%</b>	<b>36%</b>
3 - 5	29%	34%	30%	37%
6 - 10	17%	12%	12%	11%
>10	8%	9%	10%	10%