

Program Outcome Studies for Radiologic Technology at Cabrillo Community College District

--In Preparation for the Re-accreditation Studies for JRCERT
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INTRODUCTION

The following study examined the outcomes of the Radiologic Technology Program at Cabrillo College in the following areas as specified by JRCERT (Joint Review Committee on Education in Radiologic Technology) under Standard 11:

Program Outcomes:

- Program Attrition Rate
- Program Persistence Rate
- Program Graduation Rate

Individual Course Outcomes:

- Course Completion Rate
- Course Retention Rate

Student Follow-up:

- Credentialing Examination Pass Rate in ARRT and CRT
- Job Placement Rate

Data was collected from students who enrolled in the program (RT 51) starting in Fall 2000, Fall 2001, Fall 2002, Fall 2003, and Fall 2004.

Graduating Class: To convert the above into class of graduates, they become Class of 2002, Class of 2003, Class of 2004, and Class of 2005.

Program Attrition: Students were tracked for 22.5 months for Program Attrition. In other words, those enrolled in RT 51 in Fall 2002 were tracked in their enrollment RT 83 in spring 2004. For those enrolled in RT 51 in fall 2002, their enrollment in RT 82 in spring 2002 was examined. This is because RT 83 was not offered for that term.

Program Persistence: It is simply the flip side of Program Attrition.

Graduation Rates: Students were tracked since their enrollment in the RT 52 class to see if they receive a degree of Radiologic Tech.

In addition, individual course completion rates and retention rates have been analyzed and presented using the following formulae:

Course Completion Rate = $[(A+B+C+CR)*100]/(A+B+C+D+F+IF+CR+NC+W)$

Course Retention Rate =

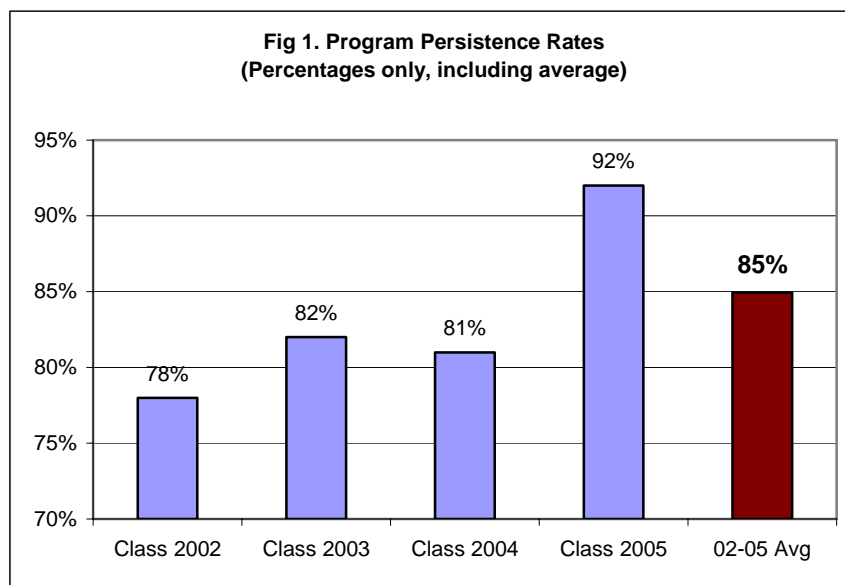
$[(A+B+C+CR+D+F+IF+NC)*100]/(A+B+C+D+F+IF+CR+NC+W)$

The Radiologic Technology Program staff provided important assistance in collecting Credentialing Exam Pass Rate and Job Placement Rate data. The college data warehouse was instrumental in identifying the longitudinal performance outcome indicators of all students under study.

PROGRAM OUTCOMES

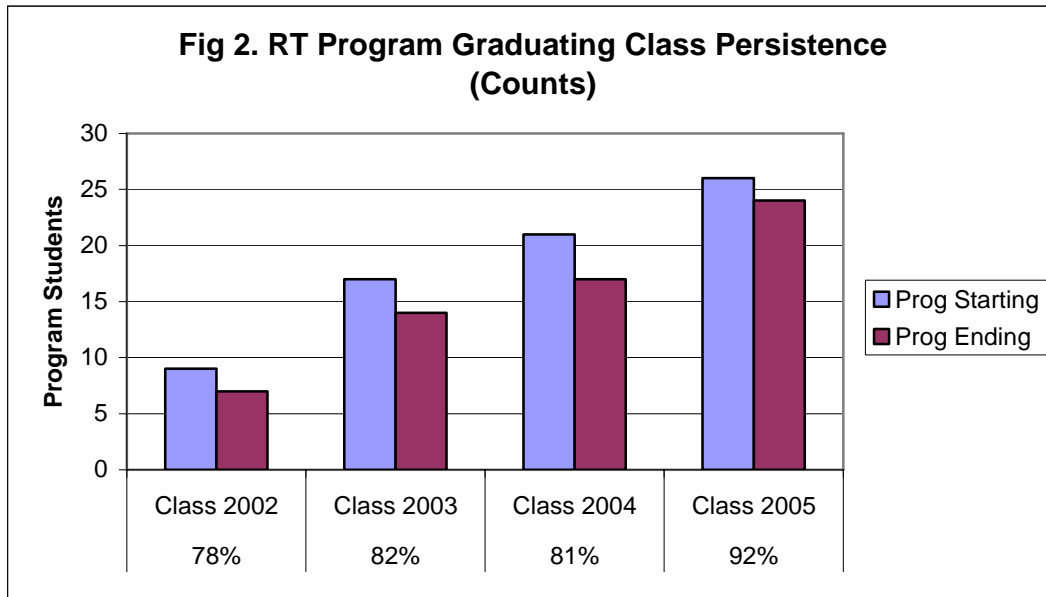
Data were obtained for four (4) Graduating Classes enrolled in the Radiologic Technology Program defined as Class of 2002, Class of 2003, Class of 2004 and Class of 2005. Each class was examined two academic years back (see definition for Program Attrition in Introduction section). For instance, the entire enrollment of Class of 2002 minus those who did not successfully complete RT51 in fall 2000 will be tracked starting from their enrollment in fall 2000 and treated as the denominator for calculating program completion/attrition. In other words, extract students enrolled in RT51 in fall 2000, treat them as the Class of 2002, compare the number of students in RT 51 to their number in RT83 in Spring 2002. Perform this type of analysis for four (4) separate fall semesters from 2000 to 2004.

The following figure, Figure 1, details program outcomes.



Observations: Overall, the program persistence rate is 85% for the four (4) graduating classes. Class 2005 had the highest persistence rate of 92% and Class 2002 the lowest (78%). The trend appears to be improving from each graduating class.

Figure 1 contains percentages and Figure 2 contains raw counts. In addition, enrollment at the beginning of the Graduating Class is presented next to the final enrollment in the end of the Graduating Class. Raw counts presented as such would provide good sense of the real magnitude of change. For example, Figure 2 shows that the size of the classes has been increasing over the years, as well, the persistence rate has stayed high.



According to Table 1, taken all graduating classes under study as a whole, a total of 73 students started their program study and 62 of them persisted in their program of study (**85% Program Persistence Rate**) and almost all of those who persisted in their program received degrees or certificates by the end of their program of study (**average 84% Program Graduation Rate**). The data also showed that the Program Attrition Rate was an average of 15%.

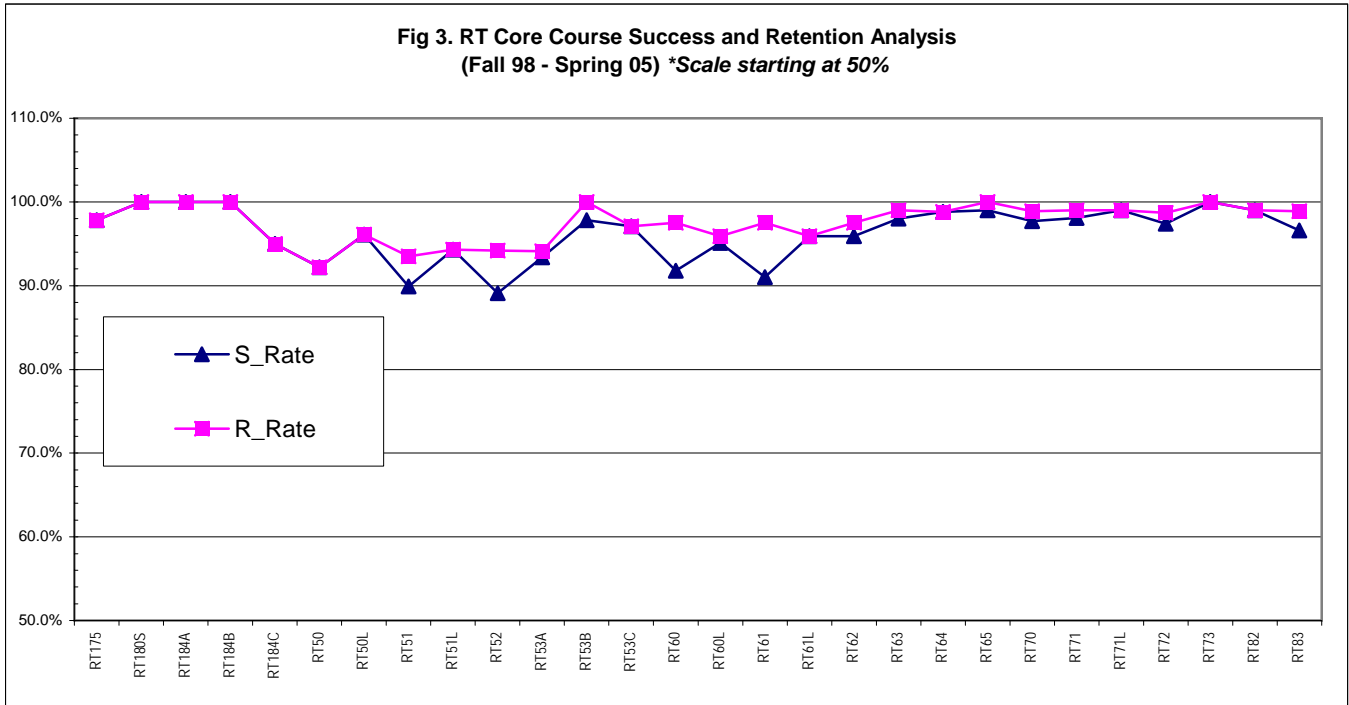
Table 1: The Program Outcome of Four Graduating Classes in Radiological Technology.

	Class 2002	Class 2003	Class 2004	Class 2005	Avg/Total
Beginning of Grad Class	9	17	21	26	73
End of Grad Class	7	14	17	24	62
Class Persistence Rate	78%	82%	81%	92%	85%
Class Attrition Rate	22%	18%	19%	8%	15%
Class Graduation Rate	78%	82%	81%	88%	84%

*Class of 2002 = the Graduating Class of 2002 = RT51 Enrollment in fall 2000.

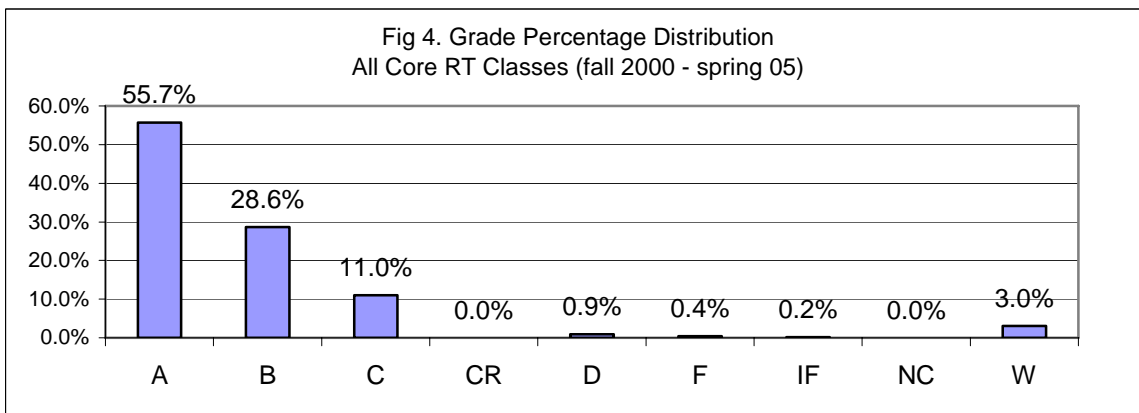
INDIVIDUAL COURSE OUTCOMES

All courses as specified in the Radiologic Technology Program had exceptionally high Course Successful Completion Rates. According to Figure 3, of the 28 courses tracked, 4 courses had 100% Course Completion Rates, and 6 courses had 100% retention rates. On average, the Course Completion Rate was 95.4% and Course Retention Rate was 97.0%.



Note: The following courses are not included for the analysis in Figure 3 and Figure 4: RT185, RT185C, RT185L, RT189A, RT189AL and RT80S, because they are not core courses. The following course are not included for the analysis in Figure 3 and Figure 4: RT70A, RT70B, RT70L, because they are open to students from outside the program.

Figure 4 contains percentage distribution of grades. The majority grade was A (55.7%), followed by 28.6% of Bs. A total of 3.0% of the grades was withdrawals (Grade of Ws) from classes.



CREDENTIALING EXAMS

The graduates from the Radiologic Technology Program at Cabrillo College have performed very well on two major credentialing examinations required for their line of work. The passing rate for the American Registry of Radiology Technologists (ARRT) shown below has been consistently 100% from 2002 to 2005 (Table 2).

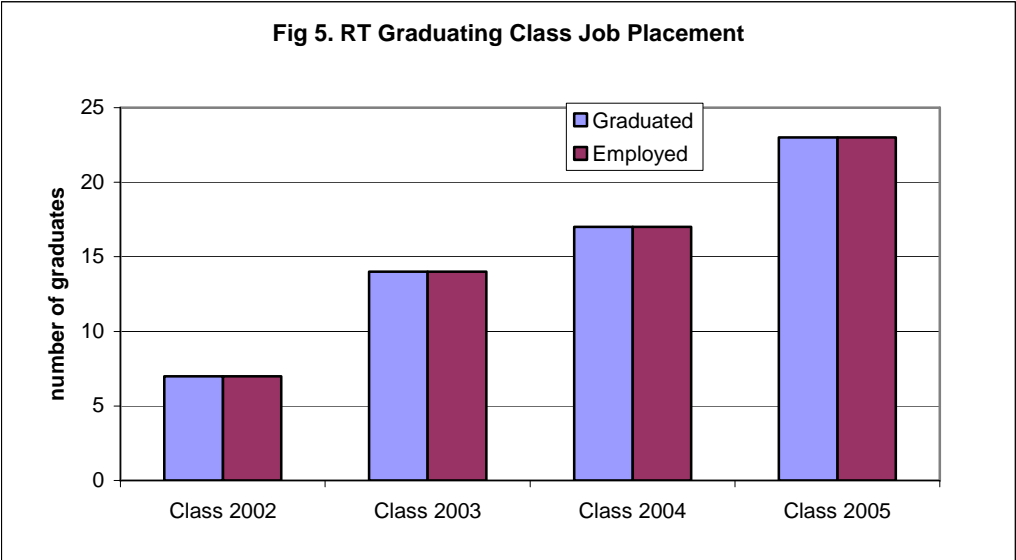
Table 2. Credentialing Exam Passing Rate for the American Registry of Radiology Technologists (ARRT)

	Jan-02	Jan-03	Jan-04	Jan-05
Radiation Protection	9.2	8.9	8.9	8.9
Equipment Oper. & Mntn	8.7	8.9	8.5	8.7
Image Production & Evaluation	8.7	8.5	8.8	8.9
Radiographic Procedures	8.8	8.8	8.9	8.7
Patient Care	8.9	9.1	8.9	9.1
Number of Examinees	7	13	18	24
Total/Mean Scoring:	88.1	87.8	88	88.5
Passing Rate:	100%	100%	100%	100%

Data from the Examinations in Radiologic Technology (usually the ARRT Exam Summary Results) sent by The American Registry of Radiologic Technologies annually.

JOB PLACEMENT RATE

Based on information from the Radiologic Technology department, the Job Placement Rate (Figure 5) for the 61 graduates from the four (4) RT graduating classes at Cabrillo College has been 100% and remained stable.



* no differentiation of job types and employment recency.
** Method of Data Collection: Student Self-reporting provided by the RT department.