

Operator Licensing Examination Performance Trends between Fiscal Years 2013 - 2022

The following 15 graphs illustrate the results of the initial operator licensing examinations (applicants taking retake exams are excluded). The graphs provide historical data of the performance of reactor operator (RO) and senior reactor operator (SRO) license applicants in both the written examination and the operating test. The graphs are presented based on the fiscal year (FY) in which the examination was administered for each of the last 10 FYs.

Reactor operator pass rates have remained consistent over the past decade (Figure 9), whereas senior reactor operator pass-rates have steadily increased (Figure 10), which is primarily caused by better SRO performance on the operating test portion of the examination (Figure 8). Many factors may cause a change in applicant performance, including changes to examination standards (NUREG-1021) and to the facility licensee's initiative to have more selective and stringent training programs. Yet the performance of the RO and SRO applicants have still displays relatively consistent characteristics. For ROs, in recent years, their overall pass-rate is generally around 90% or better (Figure 9) and their average grades are between 84% and 92% (Figure 1).

For SROs, Figure 2 and Figure 3 show that SRO applicants perform slightly better on the overall written examination (i.e., driven by the reactor operator section) than they perform on SRO-only section of the examination by a few percentage points. Figure 5 and Figure 6 indicate that the overall SRO written examination pass-rate is driven by the SRO-only section pass-rate.

The operating test pass-rate is approximately 98% to 100% for RO license applicants (Figure 7) and approximately 96% to 100% for SRO license applicants (Figure 8).

For each FY, Figures 11 and 12 show the percentage of the total number of examinations that had zero failures, one failure, two failures, etc. The charts illustrate that 70% or more of the RO and SRO written examinations over the past 10 years have had zero failures. Overall, over 90% of written examinations result in two or fewer failures.

Figure 13 shows the number of written examinations authored by NRC (N) or the facility licensee (F) per FY and shows the pass-rates based on examination author.

Figure 14 provides written examination failure rate, operating test failure rate, and the overall failure rate for SRO and RO applicants combined over the past 10 fiscal years.

As shown in Figure 15, since 2007, RO and SRO license applicants fail the written examination portion more commonly than the operating test.

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Figure 1. Reactor Operators Written Exam Average Grades

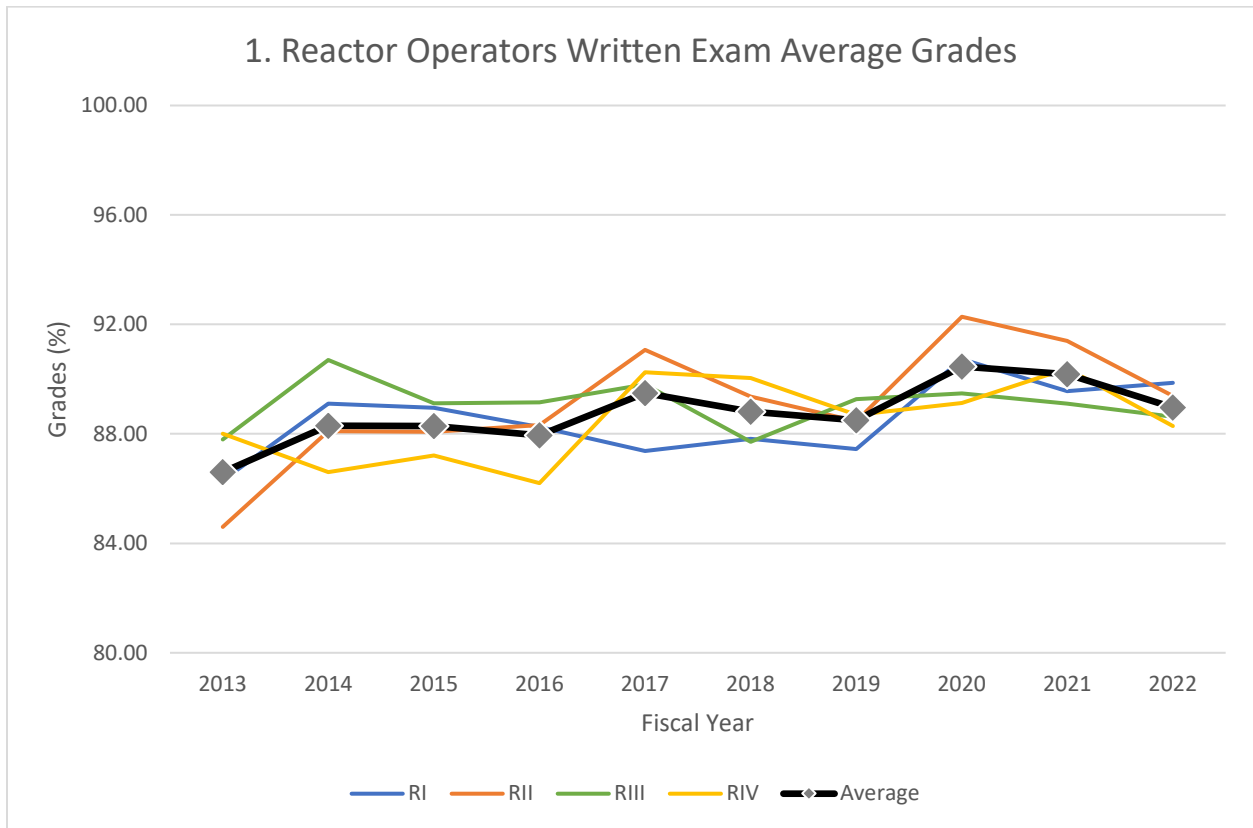


Figure 2. Senior Reactor Operators Written Examination Overall Average Grades

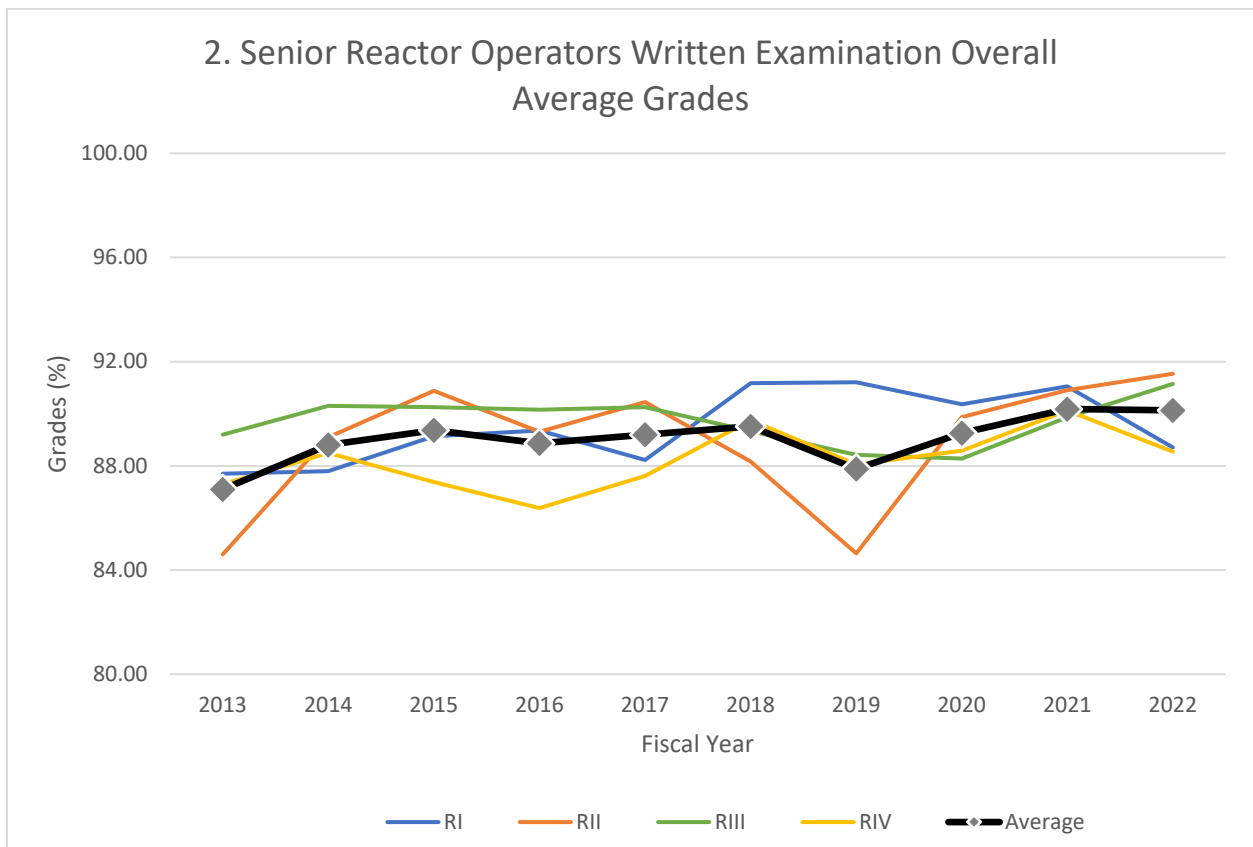


Figure 3. Senior Reactor Operators Written Examination, SRO-Only Section Average Grades

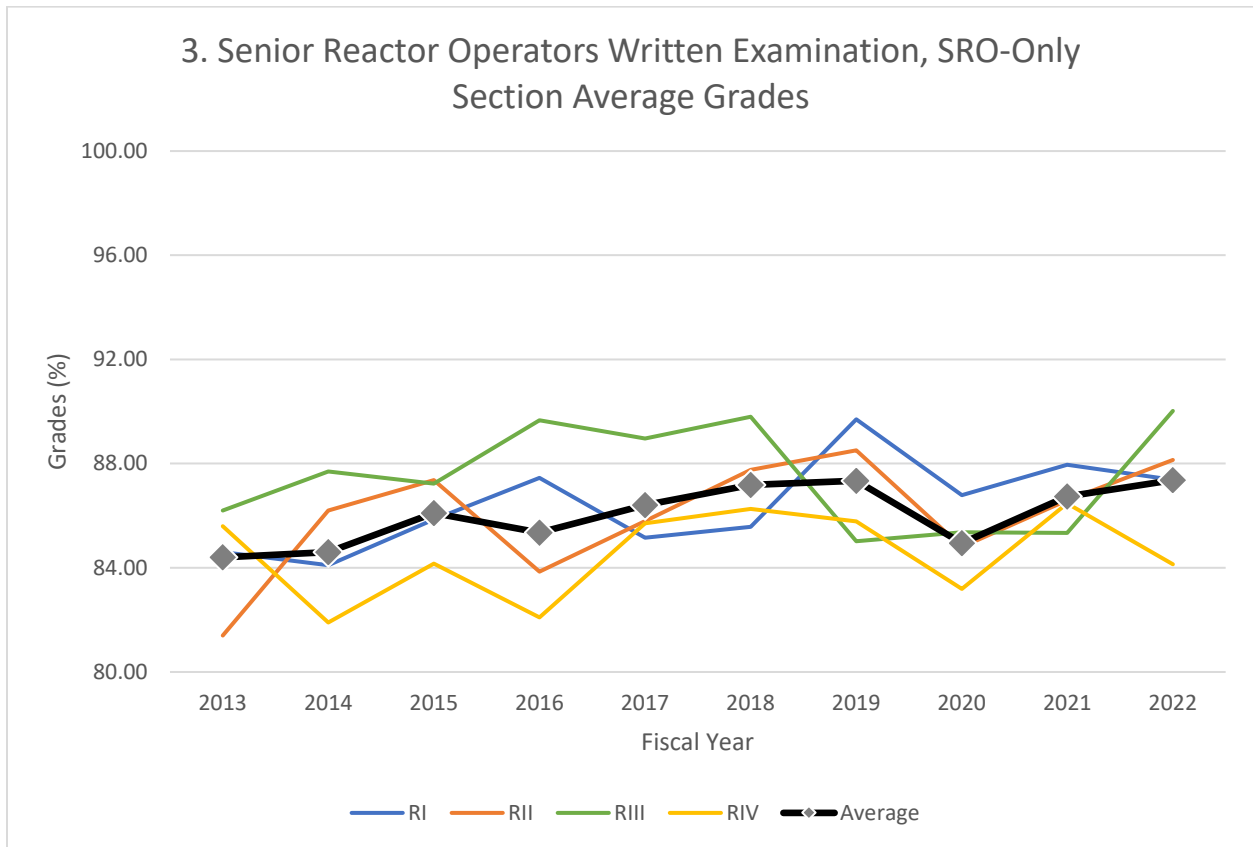


Figure 4. Reactor Operators Written Examination Pass-Rates

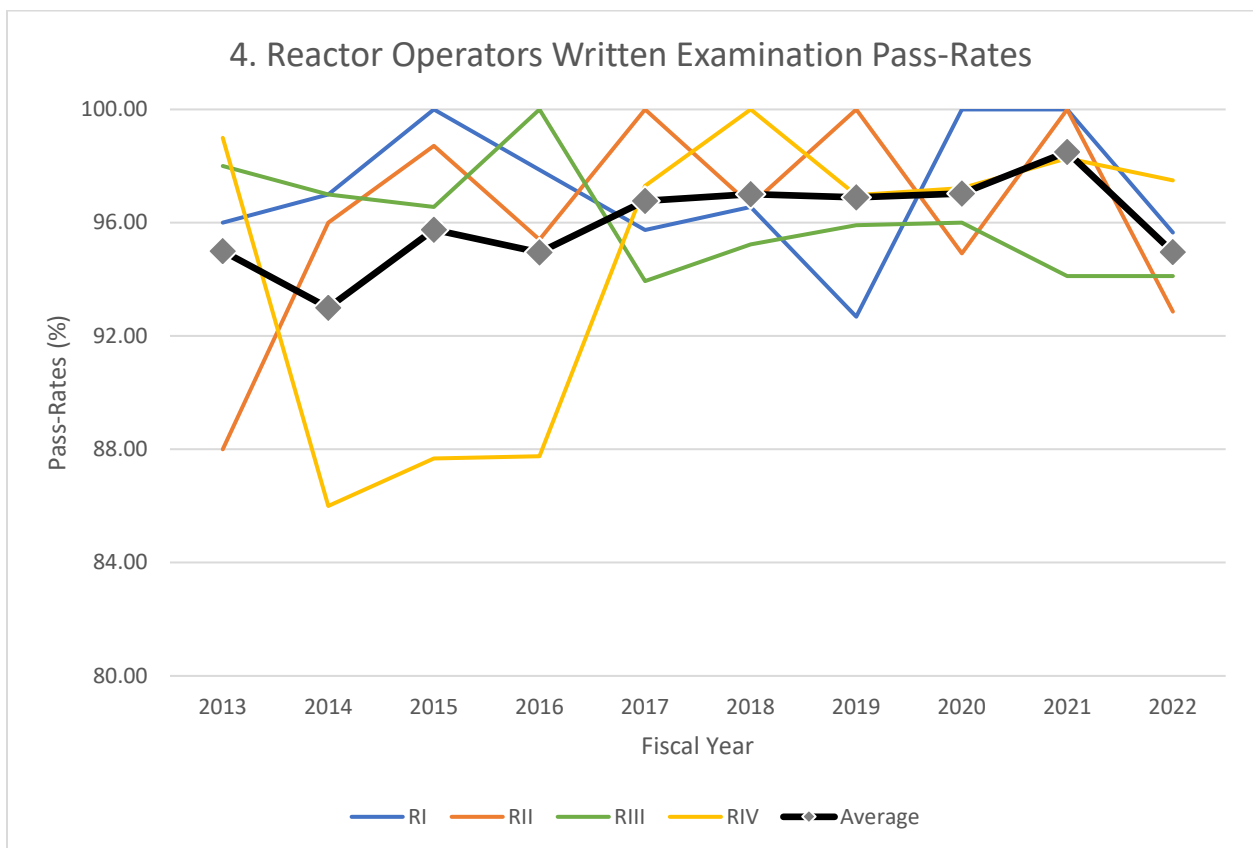


Figure 5. Senior Reactor Operators Written Examination Overall Pass-Rates

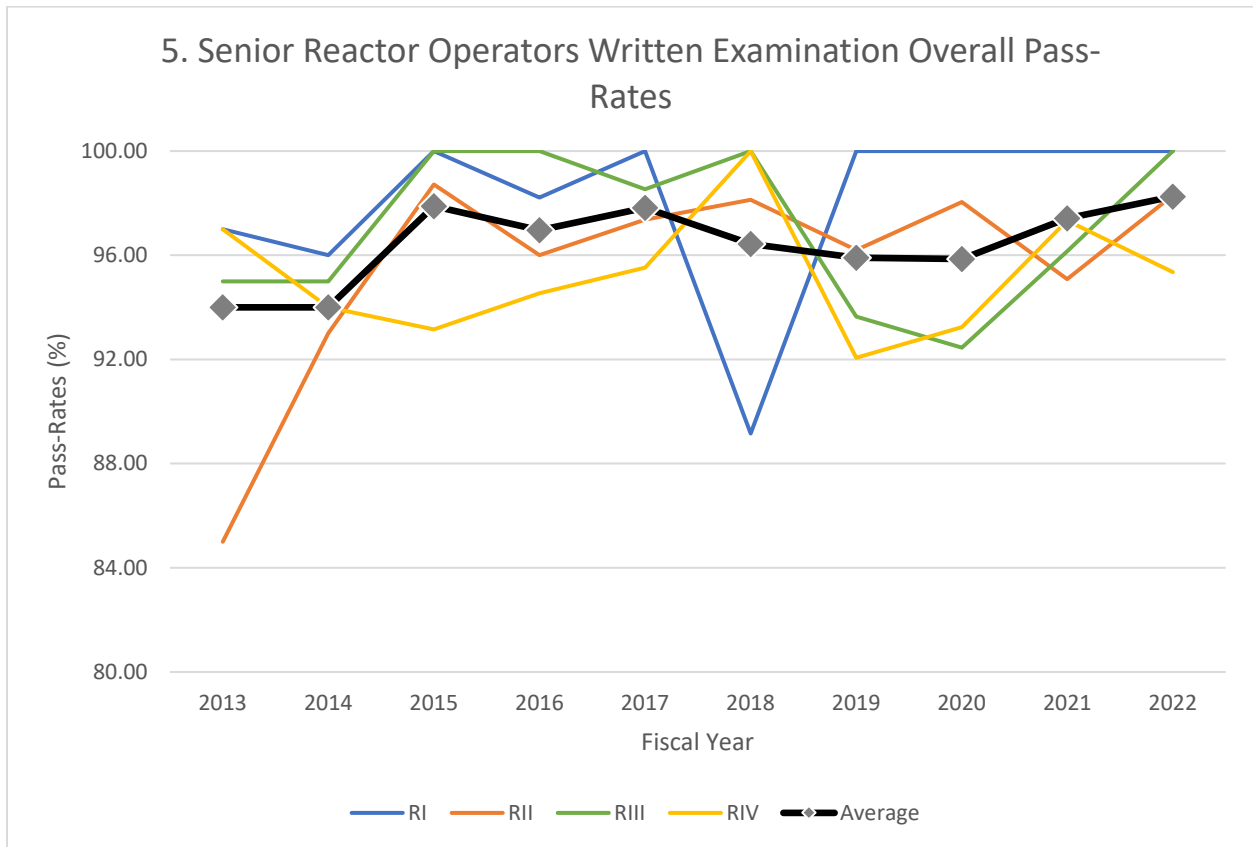


Figure 6. Senior Reactor Operators Written Examination, SRO-only Section Pass-Rates

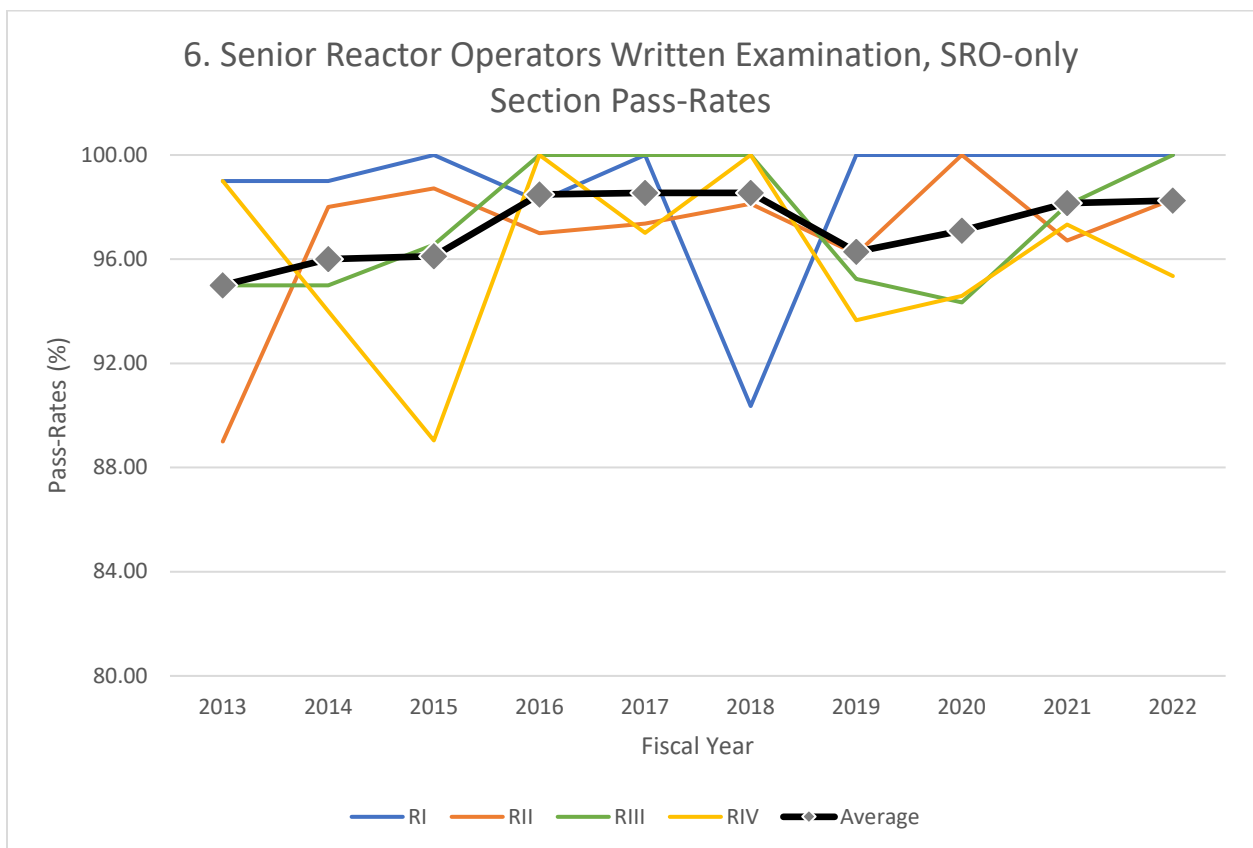


Figure 7. Reactor Operators Operating Test Pass-Rates

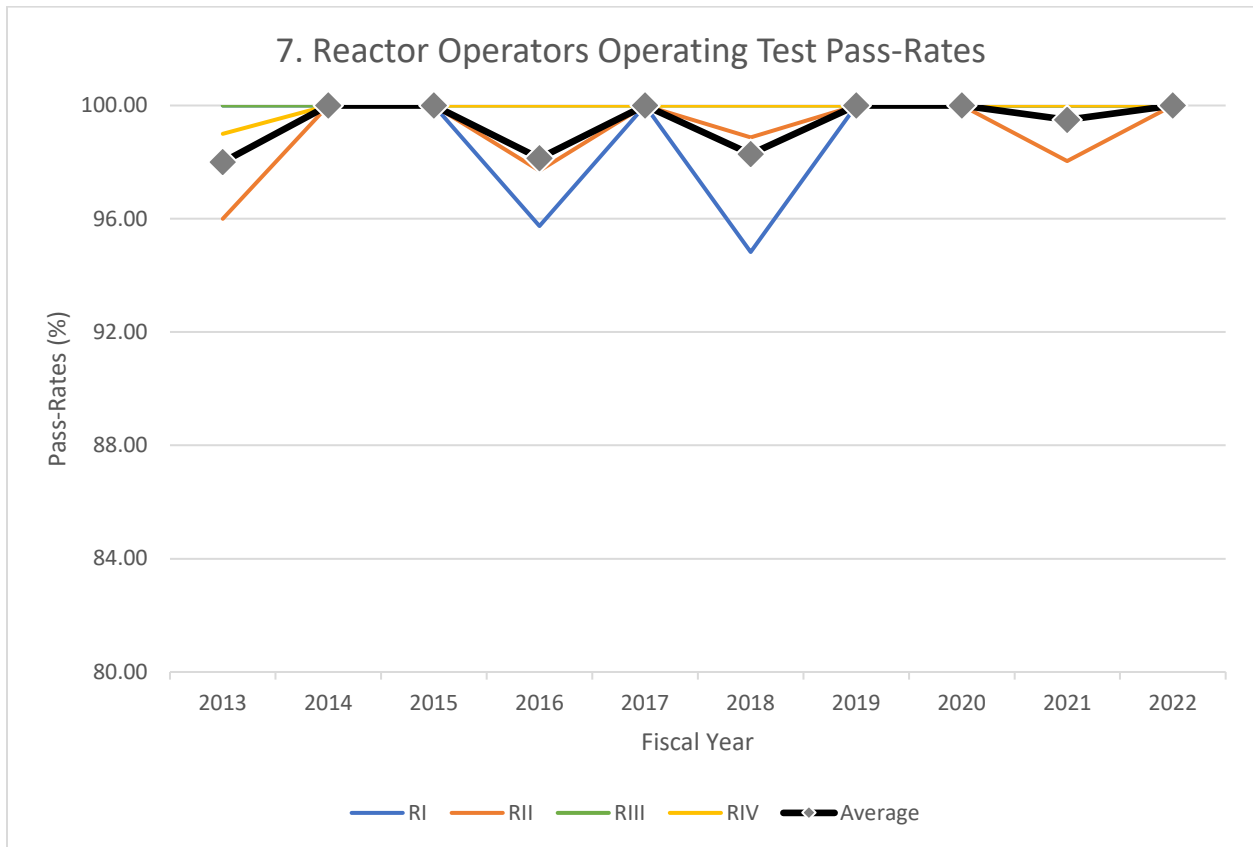


Figure 8. Senior Reactor Operators Operating Test Pass-Rates

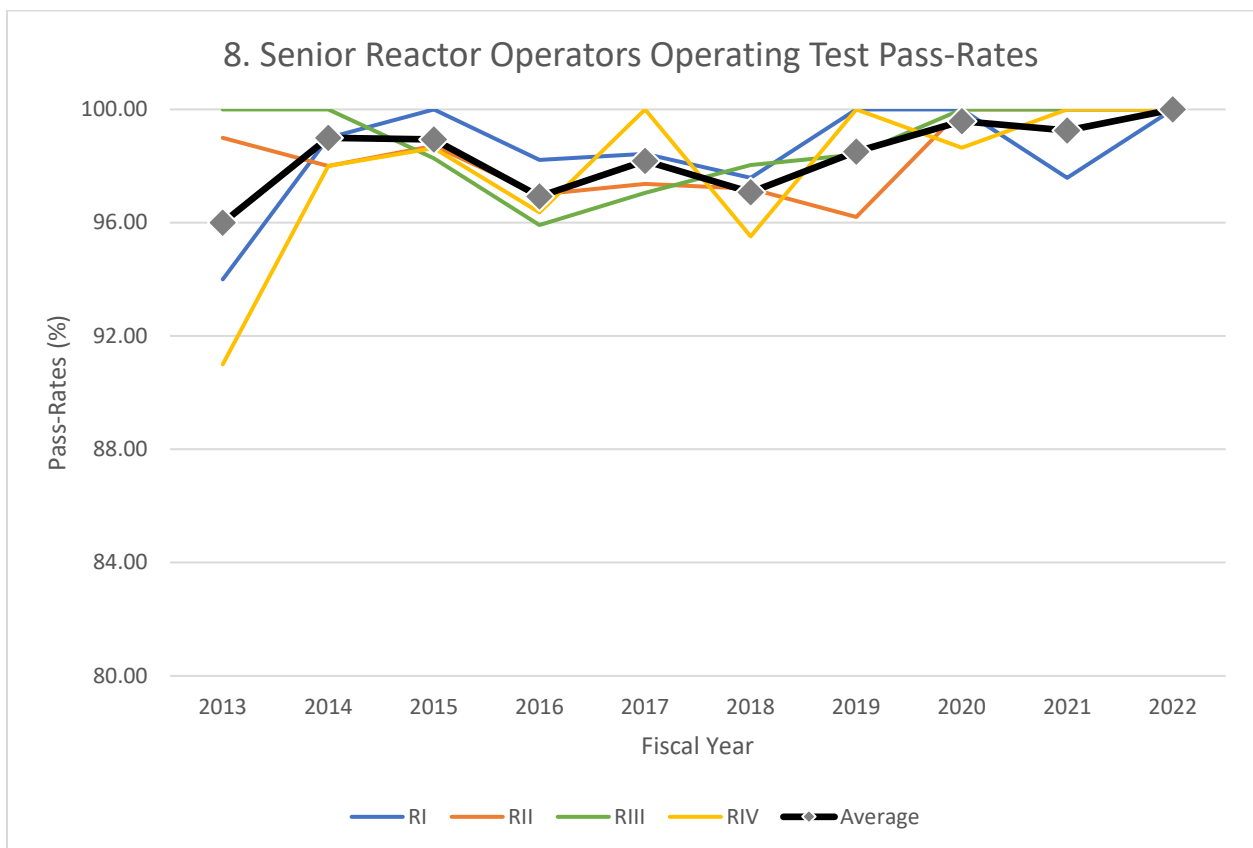


Figure 9. Reactor Operators Overall Pass-Rates

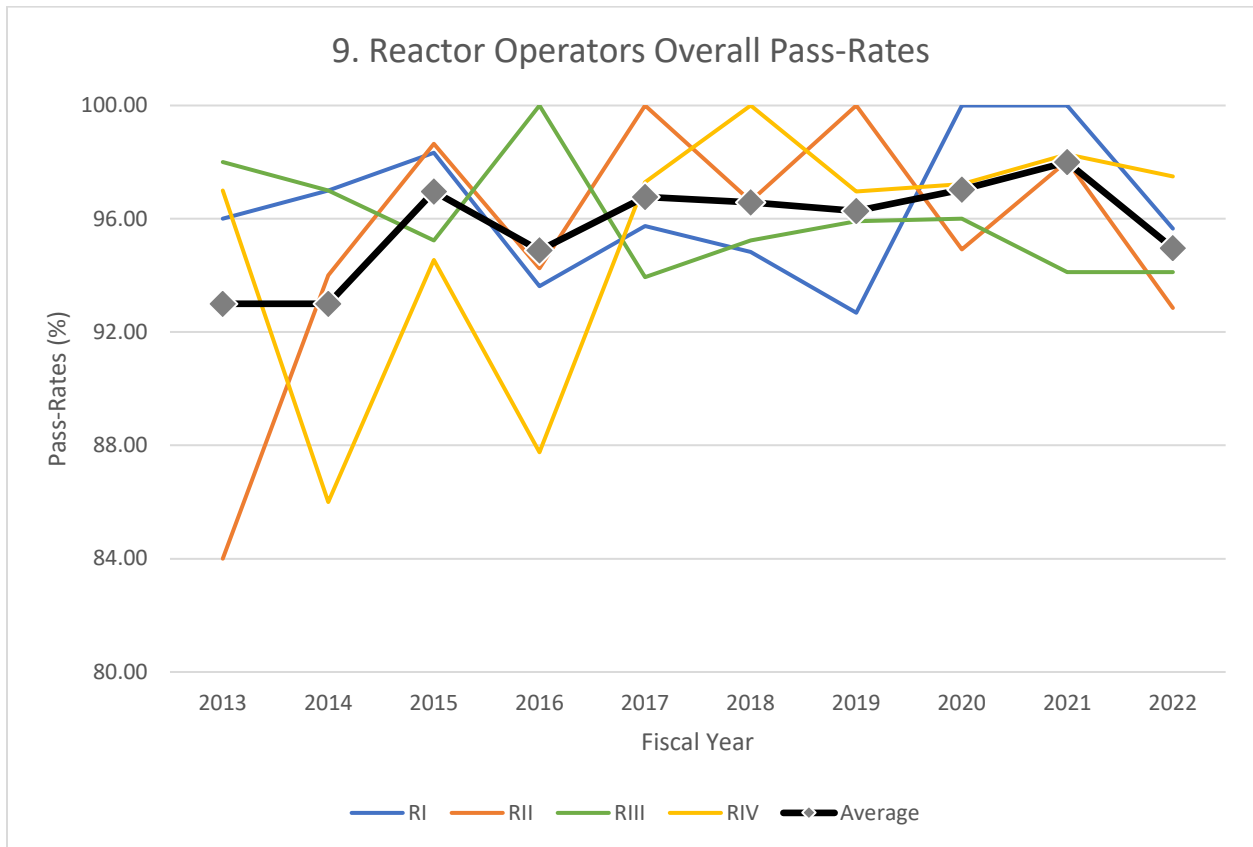


Figure 10. Senior Reactor Operators Overall Pass-Rates

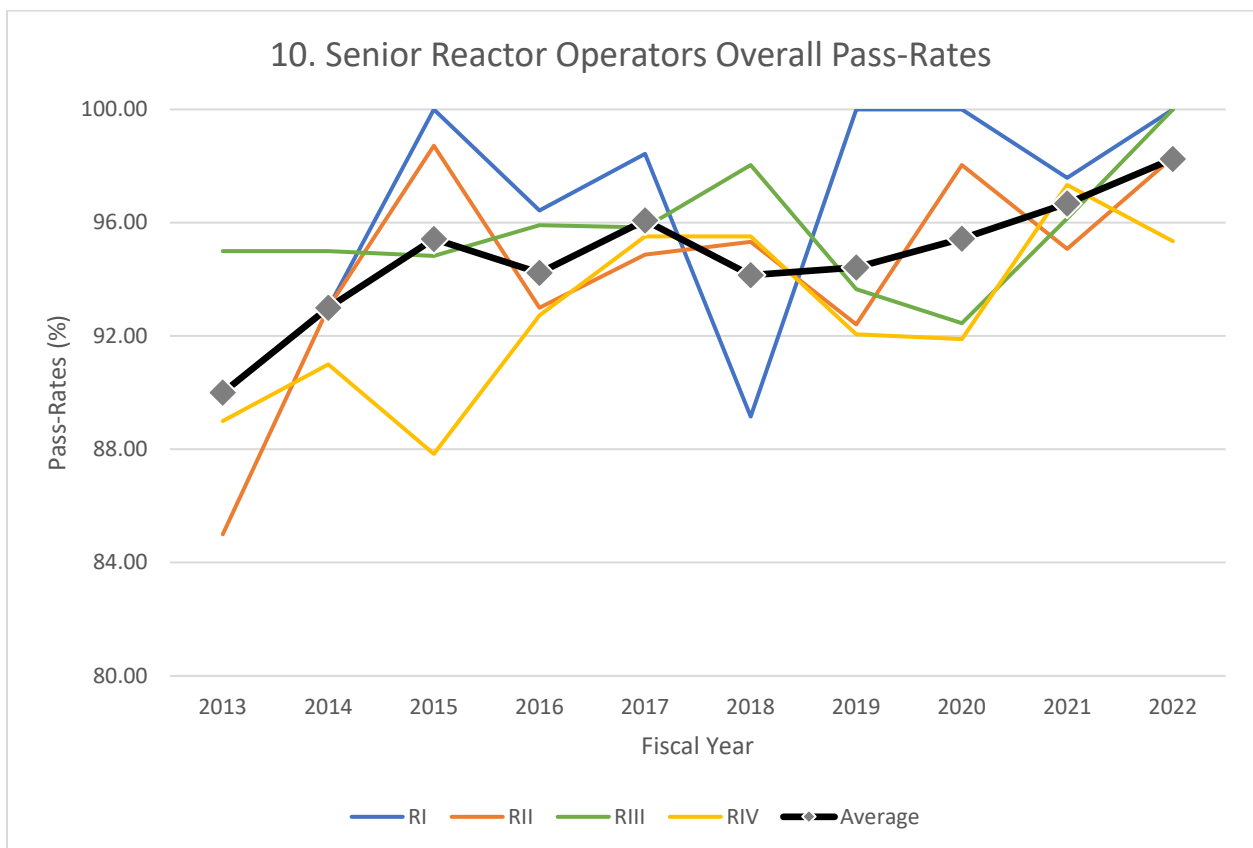


Figure 11. Reactor Operators Written Examination Historical Performance

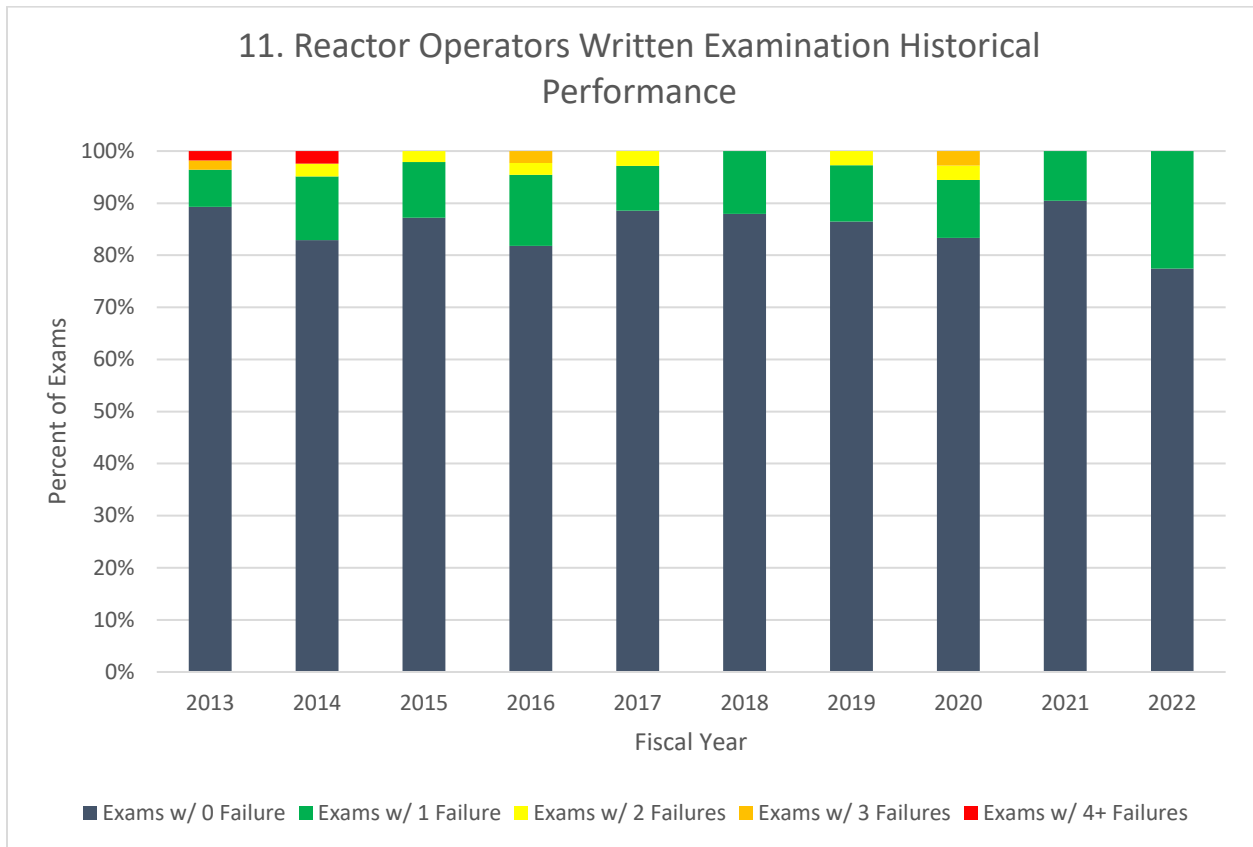


Figure 12. Senior Reactor Operators Written Examination Historical Performance

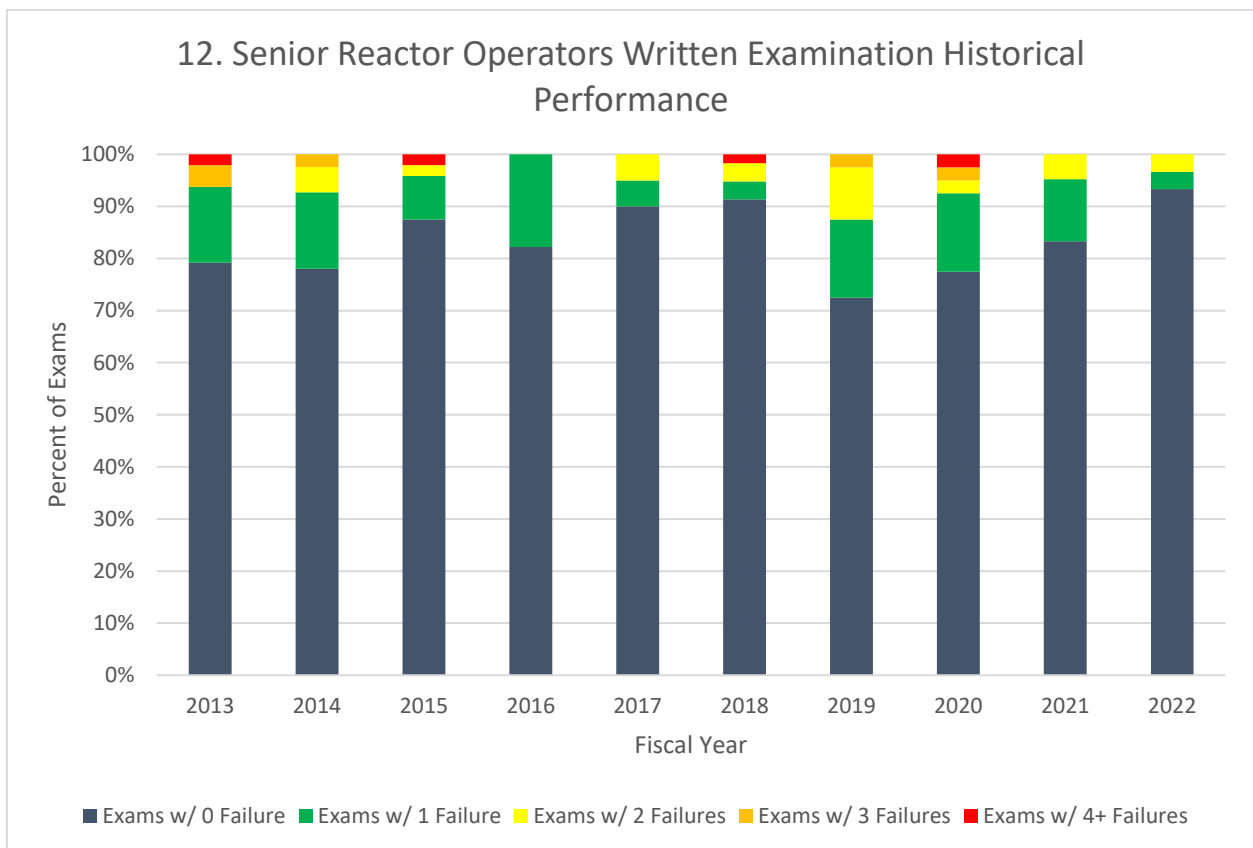


Figure 13. Initial Licensing Examination Performance Over Past 10 years: Facility-Developed vs. NRC-Developed

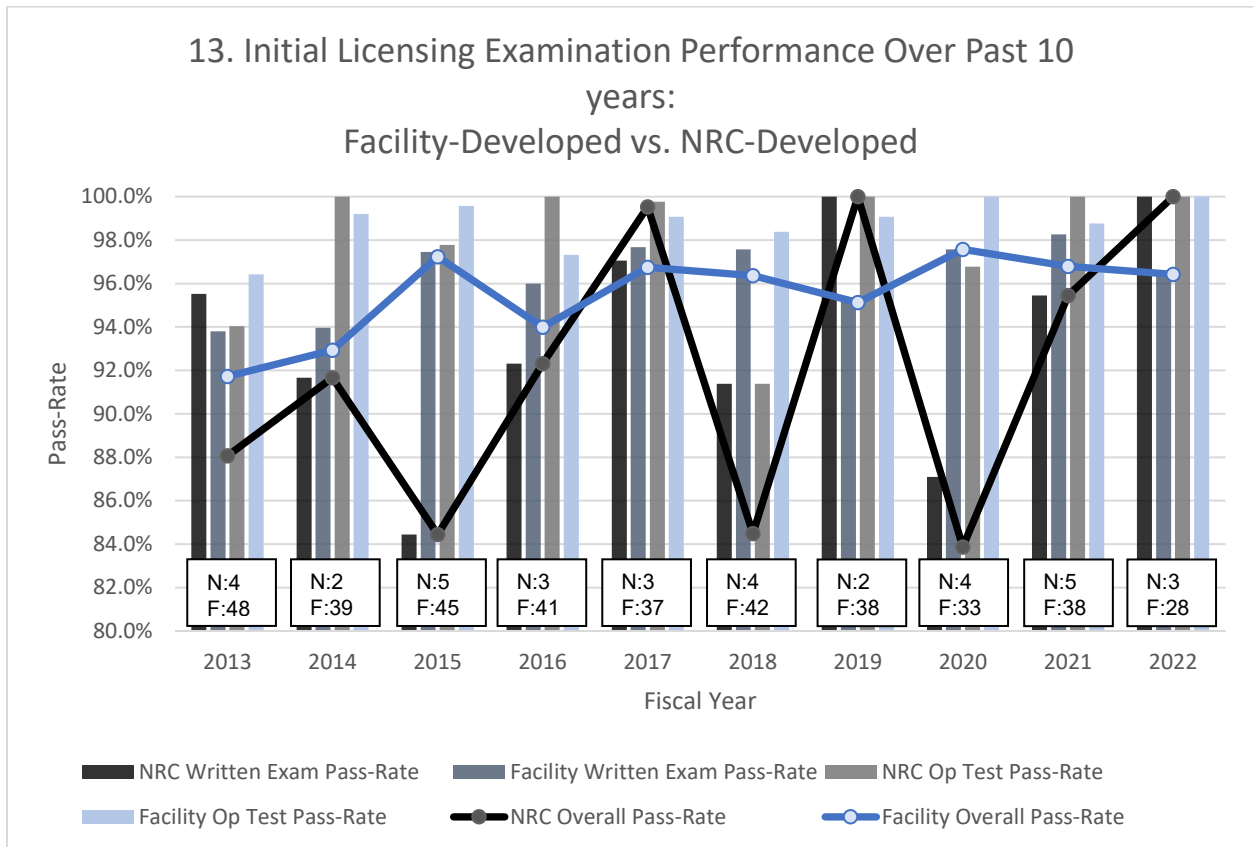


Figure 14. Overall Failure Rates

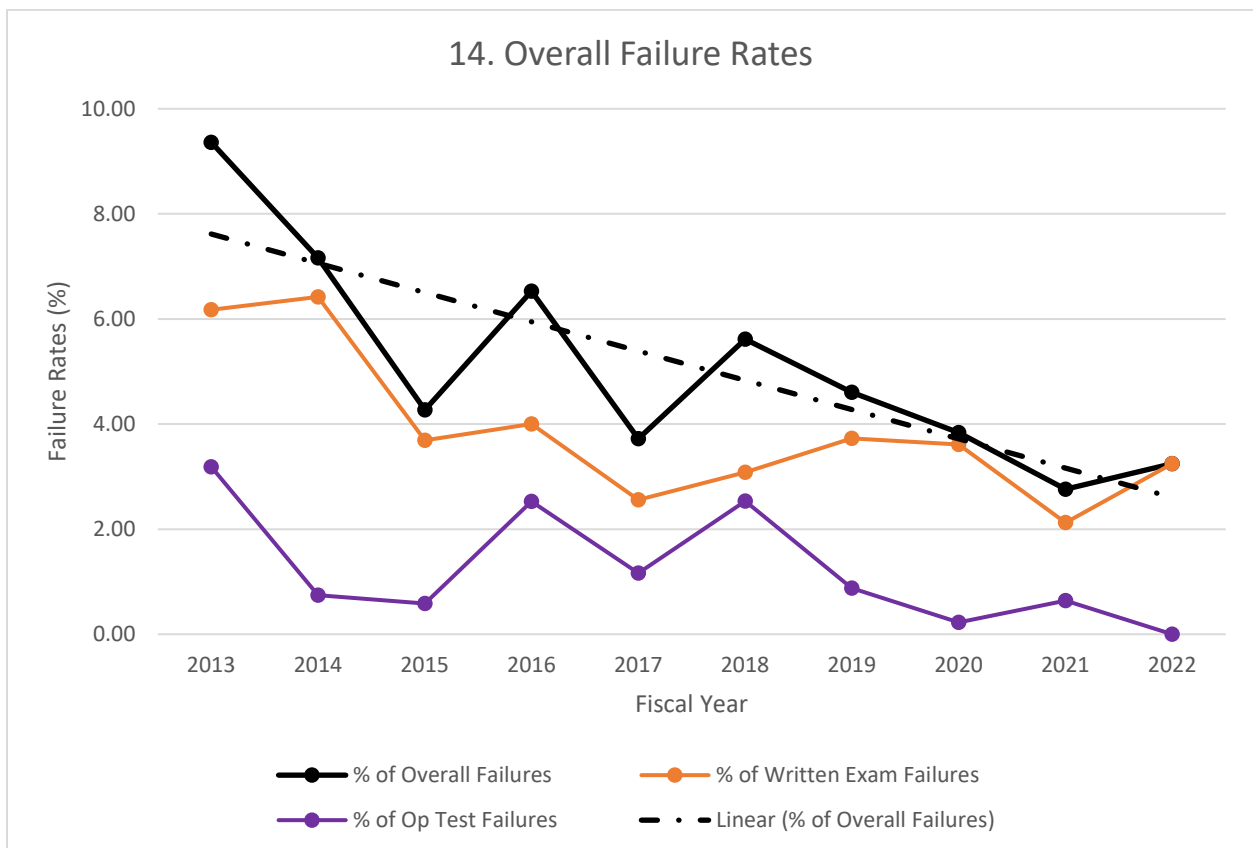


Figure 15. Initial Licensing Examination Performance Since 2007: Failures of Written Examination vs. Operating Test

