



STATE OF ILLINOIS

OFFICE OF THE AUDITOR GENERAL

**PERFORMANCE AUDIT OF THE
DEPARTMENT OF
CENTRAL MANAGEMENT SERVICES
MULTIPLE CHOICE EXAMS**

DECEMBER 2019

FRANK J. MAUTINO

AUDITOR GENERAL

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OFFICE OF THE AUDITOR GENERAL
FRANK J. MAUTINO

*To the Legislative Audit Commission, the Speaker
and Minority Leader of the House of Representatives,
the President and Minority Leader of the Senate, the
members of the General Assembly, and the
Governor:*

This is our report of the performance audit to review and assess the Department of Central Management Services' automated multiple choice exams.

The audit was conducted pursuant to House Resolution Number 816 which was adopted May 10, 2018. This audit was conducted in accordance with generally accepted government auditing standards and the audit standards promulgated by the Office of the Auditor General at 74 Ill. Adm. Code 420.310.

The audit report is transmitted in conformance with Section 3-14 and 3-15 of the Illinois State Auditing Act.

SIGNED ORIGINAL ON FILE

FRANK J. MAUTINO
Auditor General

Springfield, Illinois
December 2019



STATE OF ILLINOIS OFFICE OF THE AUDITOR GENERAL

Frank J. Mautino, Auditor General

REPORT DIGEST

PERFORMANCE AUDIT

**Release Date:
December 2019**

Audit performed in
accordance with
House Resolution 816

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EXECUTIVE SUMMARY

CMS Multiple Choice Exams

On May 10, 2018, the Illinois House of Representatives adopted House Resolution Number 816 which directed the Auditor General to conduct a performance audit of the Department of Central Management Services (CMS) to review and assess the Department's automated multiple choice exams for specific position titles listed in the audit resolution. All of the 75 position titles listed in the audit resolution fall under automated testing, Group A titles, or titles that are continuously tested. The resolution specified that the audit include a review of whether those automated multiple choice exams are biased against minority exam takers, either in their content or in their results.

Key findings of the audit include the following:

- Only a small percentage of applicants who apply are hired. During calendar years 2015 through 2018, 226,229 applicants took exams. Of these exams, only 2,585 (1.1%) resulted in an applicant being hired (during the same time period).
- To determine if the automated multiple choice exams are biased against minority exam takers, we examined the process CMS uses to establish and monitor the exams. Bias as it relates to exams and testing is difficult to define and quantify. CMS generally follows the *Uniform Guidelines on Employee Selection Procedures* (29 CFR 1607), which are designed to prevent discriminatory practices, in conducting content validity studies on exams. CMS also conducts thorough statistical analyses to ensure an exam is testing the items it is intended to test. The statistical analyses include reliability testing, correlation analysis, and discrimination index analysis to identify potentially ineffective questions.
- Despite these efforts to ensure tests are fair and afford all applicants an equal opportunity to compete for State jobs, there is a disparity in test grades among different races and ethnic groups for reasons unknown.
- Compared to their ratio of applications and passing grades, White applicants had a high ratio of A grades while Black or African American applicants had a low ratio of A grades. State agencies are required to hire from the group of candidates that received the highest passing grade. If a certain ethnic group is receiving less A grades than other ethnic groups, that ethnic group will not be represented as well in the hiring pool.
- CMS officials could not easily identify which position titles had received a content validity study and could not provide the content validity study for one of ten titles tested. Content validity studies are one of the three types of validity studies outlined in the *Uniform Guidelines* which employers can use to validate employment tests.
- The CMS Test Development Section does not have written policies or procedures for developing exams or for conducting validity studies and statistical analyses of these exams.

The audit contains a total of four recommendations to CMS.

AUDIT SUMMARY AND RESULTS

On May 10, 2018, the Illinois House of Representatives adopted House Resolution Number 816 which directed the Auditor General to conduct a performance audit of the Department of Central Management Services (CMS) to review and assess the Department’s automated multiple choice exams for specific position titles listed in the audit resolution. All of the 75 position titles listed in the audit resolution fall under automated testing, Group A titles. Group A titles are continuously tested titles where anyone can walk in anytime to be tested. The resolution specified that the audit include a review of **whether those automated multiple choice exams are biased against minority exam takers, either in their content or in their results.** (See Appendix A.) Only a small percentage of applicants who apply are hired. During calendar years 2015 through 2018, 226,229 applicants took exams. Of the 226,229 examinations taken, only 2,585 (1.1%) of these resulted in an applicant being hired during calendar years 2015 through 2018.

CMS generally follows the *Uniform Guidelines on Employee Selection Procedures* and conducts thorough statistical analyses of exams. Despite these efforts, there is a disparity in test grades among different races and ethnic groups for reasons unknown.

To determine if the automated multiple choice exams are biased against minority exam takers, we examined the process CMS uses to establish and monitor the exams. Bias as it relates to exams and testing is difficult to define and quantify. CMS generally follows the *Uniform Guidelines on Employee Selection Procedures* (29 CFR 1607), which are designed to prevent discriminatory practices, in conducting content validity studies on exams. CMS also conducts thorough statistical analyses to ensure an exam is testing the items it is intended to test. The statistical analyses include reliability testing, correlation analysis, and discrimination index analysis to identify potentially ineffective questions. Despite these efforts to ensure tests are fair and afford all applicants an equal opportunity to compete for State jobs, there is a disparity in test grades among different races and ethnic groups for reasons unknown. According to a CMS official, this disparity is not new and, many years ago, Test Development staff attempted to find the reason for the disparity in test grades among different race/ethnic groups. Test Development staff found that the groups that attained lower overall test grades typically had significantly less formal education. The official added that this finding, coupled with socioeconomic factors and less opportunity, may contribute to the disparity. (pages 14-21, 30-33)

Auditors identified the following issues:

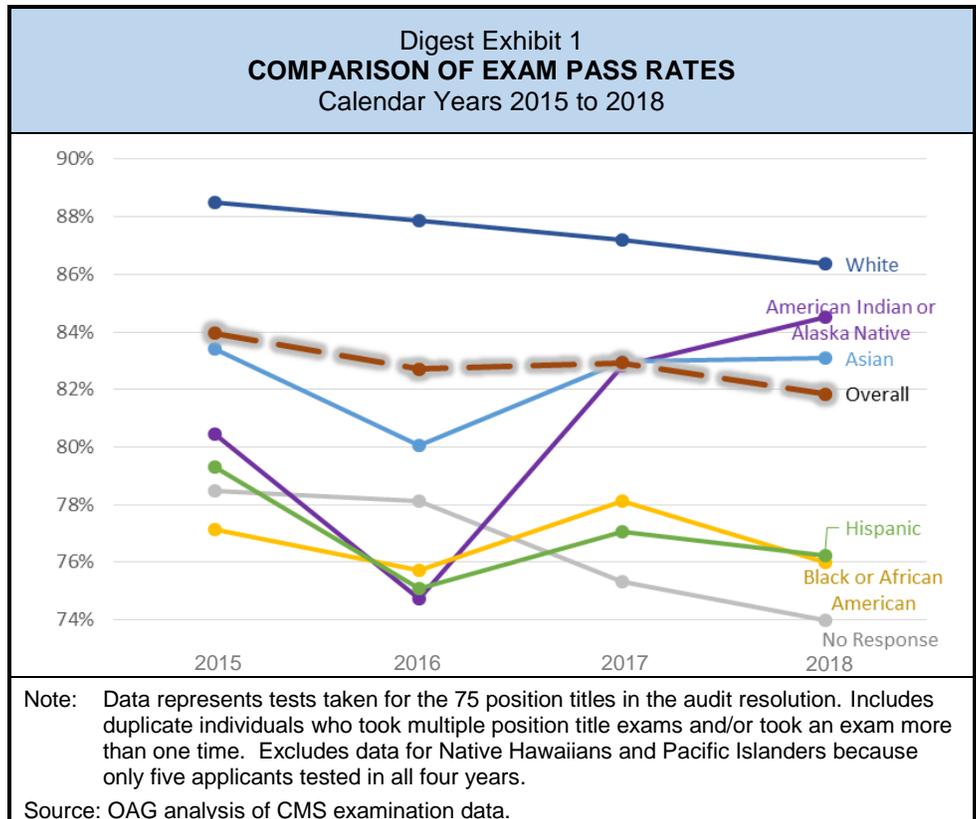
CMS officials could not easily identify which position titles received a content validity study and could not provide the content validity study for one of ten titles tested.

- CMS officials could not easily identify which position titles had received a content validity study. Content validity studies are one of the three types of validity studies outlined in the *Uniform Guidelines* which employers can use to validate employment tests.
- The validity studies conducted by CMS generally followed the *Uniform Guidelines*. However, CMS could not provide the content validity study for one of ten titles tested. CMS officials could not provide the exact date the original exam was implemented, but said it was implemented at some point prior to 1989. (pages 16-18)

- The CMS Test Development Section does not have written policies or procedures for developing exams or for conducting validity studies and statistical analyses of these exams. (pages 21-22)
- Six post-exam survey responses (out of 6,300 survey responses over four calendar years) that are applicable to exam content were not provided to the Test Development Section. (pages 23-24)
- Sixty-four applicants consisting of 127 entries (out of 226,229 examinations over four calendar years) were allowed to retake exams within 30 days, which is a violation of the Illinois Personnel Rules. (pages 24-25)

Applicant Demographics

CMS provided data on applicants that sat for exams during calendar years 2015 through 2018 for the 75 position titles in the audit resolution. Over the four calendar years, the proportion of applicants in each ethnicity category remained approximately the same. The overall pass rate ranged from a high of 84.0 percent in 2015 to a low of 81.8 percent in 2018, with an average of 82.9 percent. The pass rate for White test takers was consistently above the overall pass rate, with an average of 87.6 percent, while the remaining ethnicity categories were generally below the overall pass rate. However, for 2018, the pass rates for both Asian applicants (83.1%) and American Indian or Alaska Native applicants (84.5%) also rose above the overall pass rate. The 2018 pass rates ranged from 86.4 percent (White applicants) to 76.0 percent (Black or African American applicants).



Compared to their ratio of applications and passing grades, White applicants had a high ratio of A grades while Black or African American applicants had a low ratio of A grades.

If a certain ethnic group is receiving less A grades than other ethnic groups, that ethnic group will not be represented as well in the hiring pool.

White applicants had a high ratio of A grades compared to their ratio of applications and passing grades. Conversely, Black or African American applicants had a low percentage of A grades compared to their ratio of applications and passing grades. State agencies are required to hire from the group of candidates that received the highest passing grade. Therefore, if a certain ethnic group is receiving less A grades than other ethnic groups, that ethnic group will not be represented as well in the hiring pool. (pages 28-33)

| Digest Exhibit 2 PASSING GRADE PERCENTAGES BY ETHNICITY CATEGORY Calendar Years 2015 to 2018 | | | | | |
|---|---------|---------|---------|---------------------------|-----------------------|
| Ethnicity Category | % of As | % of Bs | % of Cs | % of Total Passing Grades | % of Total Applicants |
| White | 71.4% | 59.9% | 42.0% | 58.8% | 55.7% |
| Black or African American | 12.2% | 21.1% | 31.2% | 21.1% | 22.8% |
| Hispanic or Latino | 4.7% | 7.1% | 10.2% | 7.2% | 7.7% |
| Asian | 2.3% | 2.4% | 3.0% | 2.5% | 2.5% |
| American Indian or Alaska Native | 0.4% | 0.4% | 0.4% | 0.4% | 0.4% |
| No Response | 9.0% | 9.2% | 13.1% | 10.1% | 10.9% |
| Note: Data represents tests taken for the 75 position titles in the audit resolution. Includes duplicate individuals who took multiple position title exams and/or took an exam more than one time. Excludes data for Native Hawaiians and Pacific Islanders because only five applicants tested in all four years. | | | | | |
| Source: OAG analysis of CMS examination data. | | | | | |

RECOMMENDATIONS

The audit report contains four recommendations to the Department of Central Management Services. The Department agreed with the recommendations. Appendix E to the audit report contains the agency responses.

This performance audit was conducted by staff of the Office of the Auditor General.

SIGNED ORIGINAL ON FILE

JOE BUTCHER
Division Director

This report is transmitted in accordance with Section 3-14 and 3-15 of the Illinois State Auditing Act.

SIGNED ORIGINAL ON FILE

FRANK J. MAUTINO
Auditor General

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| TABLE OF CONTENTS | | |
|---|---|---|
| | Auditor General’s Transmittal Letter Report Digest Table of Contents | i |
| Chapter One INTRODUCTION AND BACKGROUND | Report Conclusions Introduction Background Agency Information House Resolution Number 816 | 1 2 3 3 6 |
| Chapter Two EXAM VALIDATION | Chapter Conclusions Uniform Guidelines on Employee Selection Procedures Industry Standards Validity Studies <ul style="list-style-type: none"> • Recommendation 1: Retention of Appropriate Validation Documentation CMS Test Analysis Policies and Procedures <ul style="list-style-type: none"> • Recommendation 2: Policies and Procedures Position Titles and Adverse Impact <ul style="list-style-type: none"> • Recommendation 3: Review of Survey Responses Applicable to Exam Content Other Issues <ul style="list-style-type: none"> • Recommendation 4: Retesting Within 30 Days | 9 10 12 14 18 18 21 22 22 24 24 25 |
| Chapter Three APPLICANT AND HIRING DEMOGRAPHICS | Chapter Conclusions Applicant Demographic Information Applicant Hiring Information Comparison of Applicants to Hirees | 27 28 34 37 |
| APPENDICES | | |
| Appendix A Appendix B | House Resolution Number 816 Audit Scope and Methodology | 41 45 |

| | | |
|------------|--|----|
| Appendix C | Implementation and Review Dates of Group A Position Title Exams | 51 |
| Appendix D | Pass Rates by Position Title and Ethnicity Category | 61 |
| Appendix E | Agency Responses | 75 |

Chapter One

INTRODUCTION AND BACKGROUND

REPORT CONCLUSIONS

On May 10, 2018, the Illinois House of Representatives adopted House Resolution Number 816 which directed the Auditor General to conduct a performance audit of the Department of Central Management Services (CMS) to review and assess the Department's automated multiple choice exams for specific position titles listed in the audit resolution. All of the 75 position titles listed in the audit resolution fall under automated testing, Group A titles. Group A titles are continuously tested titles where anyone can walk in anytime to be tested. The resolution specified that the audit include a review of **whether those automated multiple choice exams are biased against minority exam takers, either in their content or in their results.** (See Appendix A.) Only a small percentage of applicants who apply are hired. Of the 226,229 examinations taken, only 2,585 (1.1%) of these resulted in an applicant being hired during calendar years 2015 through 2018.

To determine if the automated multiple choice exams are biased against minority exam takers, we examined the process CMS uses to establish and monitor the exams. Bias as it relates to exams and testing is difficult to define and quantify. CMS generally follows the *Uniform Guidelines on Employee Selection Procedures* (29 CFR 1607), which are designed to prevent discriminatory practices, in conducting content validity studies on exams. CMS also conducts thorough statistical analyses to ensure an exam is testing the items it is intended to test. The statistical analyses include reliability testing, correlation analysis, and discrimination index analysis to identify potentially ineffective questions. Despite these efforts to ensure tests are fair and afford all applicants an equal opportunity to compete for State jobs, there is a disparity in test grades among different races and ethnic groups for reasons unknown. According to a CMS official, this disparity is not new and, many years ago, Test Development staff attempted to find the reason for the disparity in test grades among different race/ethnic groups. Test Development staff found that the groups that attained lower overall test grades typically had significantly less formal education. The official added that this finding, coupled with socioeconomic factors and less opportunity, may contribute to the disparity.

Issues Identified

Auditors identified the following issues:

- CMS officials could not easily identify which position titles had received a content validity study. Content validity studies are one of the three types of validity studies outlined in the *Uniform Guidelines* which employers can use to validate employment tests.
- The validity studies conducted by CMS generally followed the *Uniform Guidelines*. However, CMS could not provide the content validity study for one of ten titles

tested. CMS officials could not provide the exact date the original exam was implemented, but said it was implemented at some point prior to 1989.

- The CMS Test Development Section does not have written policies or procedures for developing exams or for conducting validity studies and statistical analyses of these exams.
- Six post-exam survey responses (out of 6,300 survey responses over four calendar years) that are applicable to exam content were not provided to the Test Development Section.
- Sixty-four applicants consisting of 127 entries (out of 226,229 examinations over four calendar years) were allowed to retake exams within 30 days, which is a violation of the Illinois Personnel Rules.

Applicant Demographics

CMS provided data on applicants that sat for exams during calendar years 2015 through 2018 for the 75 position titles in the audit resolution. Over these four calendar years, the proportion of applicants in each ethnicity category remained approximately the same. The overall pass rate ranged from a high of 84.0 percent in 2015 to a low of 81.8 percent in 2018, with an average of 82.9 percent. The pass rate for White test takers was consistently above the overall pass rate, with an average of 87.6 percent, while the remaining ethnicity categories were generally below the overall pass rate. However, for 2018, the pass rates for both Asian applicants (83.1%) and American Indian or Alaska Native applicants (84.5%) also rose above the overall pass rate. The 2018 pass rates ranged from 86.4 percent (White applicants) to 76.0 percent (Black or African American applicants).

White applicants had a high ratio of A grades compared to their ratio of applications and passing grades. Conversely, Black or African American applicants had a low percentage of A grades compared to their ratio of applications and passing grades. State agencies are required to hire from the group of candidates that received the highest passing grade. Therefore, if a certain ethnic group is receiving less A grades than other ethnic groups, that ethnic group will not be represented as well in the hiring pool.

INTRODUCTION

On May 10, 2018, the Illinois House of Representatives adopted House Resolution Number 816 which directed the Auditor General to conduct a performance audit of the Department of Central Management Services to review and assess the Department's automated multiple choice exams for specific position titles listed in the audit resolution. The resolution specified that the audit include a review of **whether those automated multiple choice exams are biased against minority exam takers, either in their content or in their results.** (See Appendix A.)

BACKGROUND

Employers often use tests to screen applicants for hire and to determine promotions for employees. The use of tests and other selection procedures can be a very effective means of determining which applicants or employees are most qualified for a particular job. However, use of these tools can violate the federal anti-discrimination laws if an employer intentionally uses them to discriminate based on race, color, sex, national origin, religion, disability, or age (40 or older). Use of tests and other selection procedures can also violate the federal anti-discrimination laws if they disproportionately exclude people in a particular group by race, sex, or another covered basis, unless the employer can justify the test or procedure under the law.

Title VII of the Civil Rights Act of 1964 (42 USC Chapter 21), as well as the Illinois Human Rights Act (775 ILCS 5), prohibit employment discrimination based on race, color, religion, sex, or national origin. Title VII permits employment tests as long as they are not designed, intended, or used to discriminate. Title VII prohibits both “disparate treatment” and “disparate impact” discrimination:

- **Disparate treatment** means a person was intentionally treated differently compared to others and the different treatment was based on the individual’s inclusion in a protected class. This could occur during testing if applicants of different races or national origins were treated differently compared to their counterparts. An example is testing the reading ability of one race or national origin but not all races and national origins.
- **Disparate impact** is the adverse effect of a practice that is likely non-discriminatory in its intention but, nonetheless, disproportionately affects individuals in a protected class. This could occur during testing if a neutral test has the effect of disproportionately excluding persons based on race, color, religion, sex, or national origin, where the test is not “job related and consistent with business necessity.”

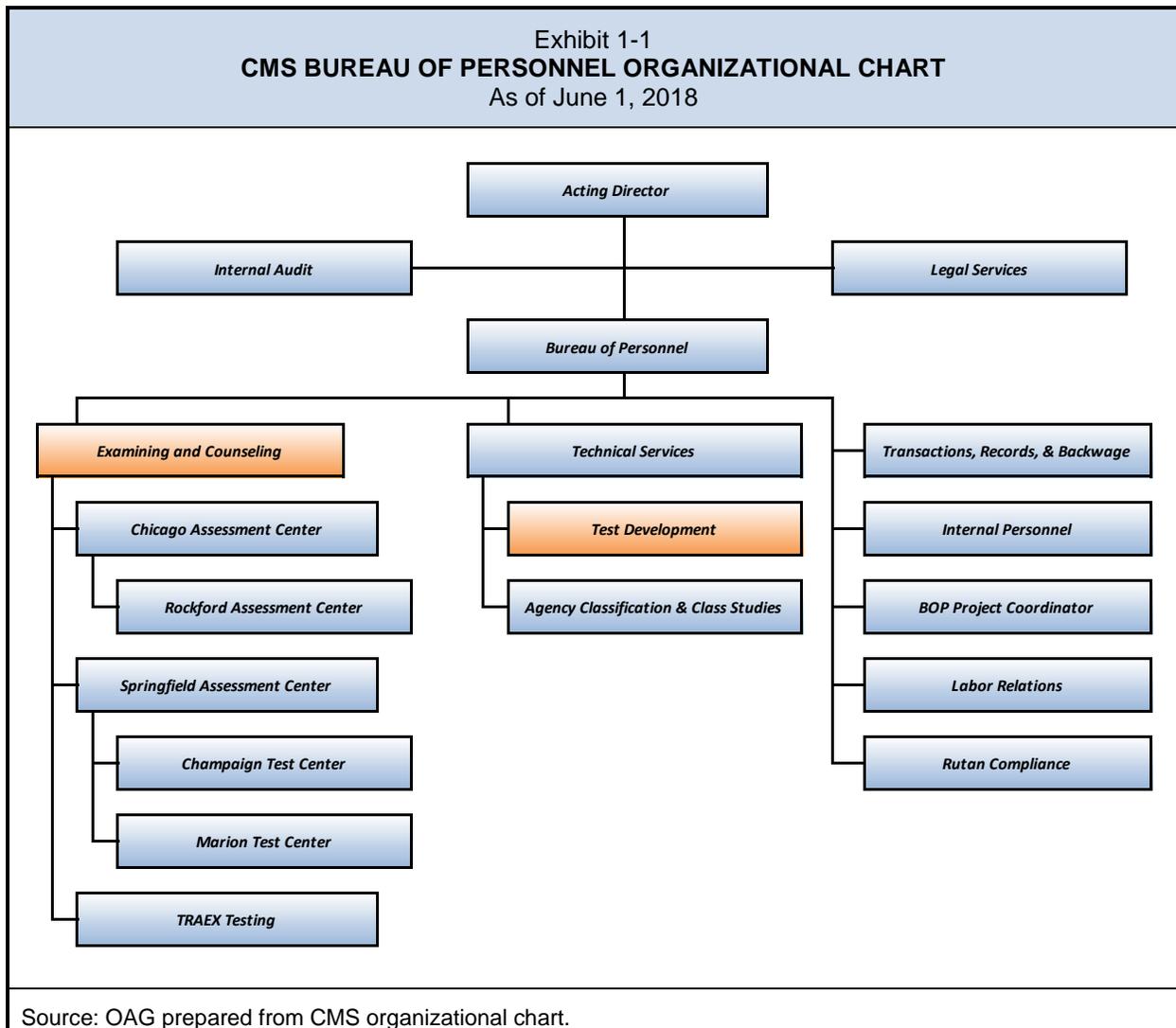
Disparate impact is often referred to as unintentional discrimination, whereas disparate treatment is intentional.

In 1978, the U.S. Equal Employment Opportunity Commission adopted the *Uniform Guidelines on Employee Selection Procedures*. The *Uniform Guidelines* provide uniform guidance for employers about how to determine if their tests are lawful for purposes of Title VII disparate impact theory. The *Uniform Guidelines* outline three different types of validity studies employers can use to validate their employment tests. The type of validity study used by CMS is called a content validity study.

AGENCY INFORMATION

The Department of Central Management Services oversees the State’s personnel and hiring system. The Bureau of Personnel is responsible for the development and administration of the state’s merit employment system in accordance with the Illinois Personnel Code and Personnel Rules in addition to the current collective bargaining agreements and applicable laws. In addition, the Bureau of Personnel is responsible for the recruitment and counseling of potential State employees as well as the administration of grading, testing, classification, and

compensation standards of current and new positions. The organizational chart for the Bureau of Personnel is shown in Exhibit 1-1. Orange shading indicates the division and section which this audit dealt with primarily.



Division of Examining and Counseling

The Division of Examining and Counseling is responsible for providing career counseling services and examining applicants in over 950 job titles. Career counseling services are available at the five testing centers located in Springfield, Chicago, Champaign, Marion, and Rockford. Counselors at these locations explain the State of Illinois’ hiring process and provide examination information and qualification information for certain career titles.

| Assessment Center Locations |
|---|
| Springfield – Capital City Training Center – 130 W. Mason St. |
| Chicago – James R. Thompson Center – 100 W. Randolph St. |
| Champaign – State Regional Office Building – 2125 S. First St. |
| Marion – State Regional Office Building – 2309 W. Main St. |
| Rockford – E.J. “Zeke” Giorgi Center – 200 S. Wyman St. |

Depending on the position title, applicants are generally evaluated through either training and experience (TRAEX) or automated testing through the Windows Computer Assisted Testing System (WinCATS).

TRAEX Examining Section

This section evaluates qualifications of applicants based on education, training, and experience for over 700 job titles. An application form, called the CMS100 or the CMS100B promotional application, must be submitted to the Bureau of Personnel to begin this process. The TRAEX section uses grading scales to evaluate an applicant's entire application. These scales are developed by coordinating with job experts in agencies that utilize the specific job titles.

Automated Testing Section

Automated tests are conducted on over 300 different job titles at the five testing centers. Applicants wishing to take these exams must complete a CMS100 for each title for which they want to test. Applicants are not allowed to test for the same position title within 30 days of the last time tested per Illinois Personnel Rules (80 Ill. Adm. Code 302.60(a)).

WinCATS is available at all five assessment centers. The applicant is given on-screen instructions on how to take the exam. After the exam, incorrect answers are shown but the correct answer is not shown. The applicant has 15 minutes to review the scored tests and can comment on specific questions. Comments are reviewed at a later date by Test Development staff in the Division of Technical Services. Applicants are also presented with an optional survey screen that allows the applicant to rate predefined categories of services and also provides an area for comments.

Position titles are also classified as either Group A titles or Group B titles. Group A titles are continuously tested titles where anyone can walk in anytime to be tested. These include both automated testing and TRAEX. Group B titles are scheduled as needed. All of the 75 position titles listed in the audit resolution fall under automated testing, Group A titles.

Division of Technical Services

The Division of Technical Services includes the Test Development Section which is responsible for developing tests for various job classifications and evaluating the effectiveness of the tests. The Test Development Section consists of three employees. According to a systems narrative provided by CMS, one or more of the following may trigger test development and validation studies:

- work plans established by the section to review exams on a recurring basis and/or the development of new classes or modifications to existing class standards;
- concerns expressed by agencies regarding the quality of eligible candidates or an insufficient applicant pool; and
- repeated inquiries from applicants regarding the suitability or job-relatedness of exam material.

In developing the structured employment tests used for the various position titles, the Test Development Section:

- conducts a job analysis on specified classes to understand work behaviors;
- designs test plans to identify test components and choose the appropriate format;
- develops test materials for review by agency personnel which are developed using stipulations from the federal *Uniform Guidelines on Employee Selection Procedures*;
- works closely with the Division of Examining and Counseling to implement test materials in an automated and manual form; and
- conducts statistical analysis of applicant test performance to measure the effectiveness of the procedures as a selection tool and revise exams as needed.

The Test Development Section develops the employment tests and then evaluates the effectiveness of the tests. It is not responsible for administering or grading the tests.

HOUSE RESOLUTION NUMBER 816

House Resolution Number 816 asks us to determine whether the automated multiple choice exams administered by CMS are biased against minority exam takers. The audit resolution lists 75 position titles to examine (see Exhibit 1-2). Many of the titles have different options. For example, Automotive Mechanic consists of two options: option 1 for light duty vehicles and option 2 for medium/heavy trucks. Accounting for all of the different options, there are a total of 112 tests for the 75 position titles.

| Exhibit 1-2 POSITION TITLES LISTED IN AUDIT RESOLUTION | | | |
|---|---|----------------|---|
| Position Title | | Position Title | |
| 1 | Account Clerk I | 39 | Insurance Performance Examiner I ¹ |
| 2 | Account Clerk II | 40 | Intermittent Clerk ¹ |
| 3 | Account Technician I | 41 | Intermittent Laborer (Maintenance) |
| 4 | Accountant | 42 | Laboratory Assistant |
| 5 | Accountant Advanced | 43 | Maintenance Equipment Operator |
| 6 | Accountant Supervisor | 44 | Maintenance Worker |
| 7 | Administrative Services Worker Trainee | 45 | Meat & Poultry Inspector Trainee |
| 8 | Automotive Mechanic ¹ | 46 | Natural Resources Technician I |
| 9 | Building/Grounds Laborer | 47 | Office Administrative Specialist ¹ |
| 10 | Building/Grounds Maintenance Worker | 48 | Office Administrator I ¹ |
| 11 | Clerical Trainee | 49 | Office Administrator II ¹ |
| 12 | Corrections Food Service Supervisor I | 50 | Office Administrator III ¹ |
| 13 | Data Processing Administrative Specialist | 51 | Office Administrator IV ¹ |
| 14 | Data Processing Assistant ¹ | 52 | Office Administrator V ¹ |
| 15 | Data Processing Specialist | 53 | Office Aide |
| 16 | Data Processing Technician | 54 | Office Assistant ¹ |
| 17 | Data Processing Technician Trainee | 55 | Office Associate ¹ |
| 18 | Dietitian | 56 | Office Clerk ¹ |
| 19 | Disability Claims Adjudicator Trainee | 57 | Office Coordinator ¹ |
| 20 | Electronic Equipment Installer/Repairer | 58 | Office Specialist ¹ |
| 21 | Employment Security Program Representative | 59 | Pharmacy Technician |
| 22 | Employment Security Program Rep. - Intermittent | 60 | Public Aid Eligibility Assistant |
| 23 | Employment Security Service Representative | 61 | Rehabilitation Case Coordinator I |
| 24 | Executive Secretary I ¹ | 62 | Residential Care Worker Trainee |
| 25 | Executive Secretary II ¹ | 63 | Revenue Tax Specialist Trainee |
| 26 | Executive Secretary III ¹ | 64 | Security Therapy Aide Trainee |
| 27 | Firearms Eligibility Analyst Trainee | 65 | Site Security Officer |
| 28 | Forensic Scientist Trainee ¹ | 66 | Site Technician II |
| 29 | Guard II | 67 | Social Services Career Trainee |
| 30 | Highway Maintainer | 68 | Stores Clerk |
| 31 | Human Resources Assistant ¹ | 69 | Support Service Worker |
| 32 | Human Resources Associate ¹ | 70 | Switchboard Operator I |
| 33 | Human Rights Investigator Trainee | 71 | Telecommunicator Trainee |
| 34 | Information Systems Analyst I ¹ | 72 | Unemployment Insurance Revenue Analyst I |
| 35 | Information Systems Analyst II ¹ | 73 | Unemployment Insurance Revenue Analyst II |
| 36 | Information Systems Analyst III ¹ | 74 | Unemployment Insurance Revenue Specialist |
| 37 | Insurance Analyst I ¹ | 75 | Veterans Employment Representative I ¹ |
| 38 | Insurance Analyst II ¹ | | |

¹ This position title has more than 1 test option. There are a total of 112 tests for the 75 position titles. See Appendix D for a complete list of position titles and options.

Source: House Resolution Number 816.

Race and Ethnicity Categories

According to Equal Employment Opportunity terminology at the National Archives and Records Administration, a minority is defined as follows:

The smaller part of a group. A group within a country or state that differs in race, religion or national origin from the dominant group.

CMS uses race and ethnicity categories that are very similar to categories established by the federal Equal Employment Opportunity Commission. Exhibit 1-3 shows the categories used by CMS, which appear in an optional section of the CMS100 Examining/Employment Application. The Equal Employment Opportunity Commission categories differ slightly in that they include the phrase “Not Hispanic or Latino” within each category compared to the CMS100 which includes “Not of Hispanic Origin” for only two categories. The Equal Employment Opportunity Commission also includes one additional category:

Two or More Races (Not Hispanic or Latino) - All persons who identify with more than one of the above five races.

| Exhibit 1-3 ETHNICITY CATEGORIES USED BY CMS | | |
|--|-------------------------------|---|
| <u>The following section is optional.</u> | | |
| The State of Illinois is an Equal Opportunity Employer. To assist in the accomplishment of Affirmative Action goals, we invite you to complete the following information. Completion of this information is not required. Check ONE box and, if applicable, check the appropriate Disability box. | | |
| Female | Male | Ethnicity |
| <input type="checkbox"/> A | <input type="checkbox"/> G | White not of Hispanic Origin. A person having origins in any of the original peoples of Europe, North Africa or the Middle East. |
| <input type="checkbox"/> B | <input type="checkbox"/> H | Black or African American not of Hispanic Origin. A person having origins in any of the black racial groups of Africa. |
| <input type="checkbox"/> C | <input type="checkbox"/> J | American Indian or Alaska Native. A person having origins in any of the original peoples of North and South America, including Central America, and who maintains tribal affiliation or community attachment. |
| <input type="checkbox"/> D | <input type="checkbox"/> K | Asian. A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, including, but not limited to, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. |
| <input type="checkbox"/> E | <input type="checkbox"/> L | Hispanic or Latino. A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish Culture or origin, regardless of race. |
| <input type="checkbox"/> P | <input type="checkbox"/> Q | Native Hawaiian or Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. |
| Are you an Individual with a Disability? Yes <input type="checkbox"/> No <input type="checkbox"/> | | |
| Source: CMS100 Examining/Employment Application. | | |

Chapter Two

EXAM VALIDATION

CHAPTER CONCLUSIONS

Auditors asked CMS staff to provide a list of content validity studies for each of the Group A titles and when each study was conducted. CMS officials noted that they could potentially provide the information requested through a search of electronic and paper files, but it would be unduly burdensome and time consuming given the number of exams, limited staff resources, and other pressing projects. If management cannot easily identify which titles have received a content validity study, then CMS could have a difficult time demonstrating that an exam's content has been validated and therefore would be at a greater risk of a lawsuit on the basis of discrimination. Auditors recommended that CMS ensure a system is in place to track when validity studies were conducted and retain appropriate validation documents to confirm that each examination has been properly validated.

Auditors tested 10 Group A automated testing position title files to determine if a content validity study was conducted for each. Auditors found that the validity studies tested generally met the standards provided in the *Uniform Guidelines on Employee Selection Procedures* (29 CFR 1607); however, CMS officials could not provide documentation related to the validity of the content of one position title's exam. This position title had not received a test analysis (statistical analysis of exam performance) since 2008, and the test analysis did not mention a review of class specifications or position descriptions or the use of job experts, which are an important part of ensuring the test content accurately reflects job duties. This position title has been flagged the last three years as being a priority to review, has been indicated as demonstrating adverse impact, and the number tested and hired was on the rise from 2015 to 2017. Adverse impact represents a numerical differentiation of hiring rates and does not automatically imply discrimination or discriminatory intent. A position title may indicate adverse impact one year but not the next and vice versa.

Auditors examined the test analyses conducted for 12 Group A automated testing position titles and found them to be thorough. The test analysis included statistical support, source data, and a comprehensive summary of the analysis. When resources allow, CMS' Test Development Section analyzes the previous year's examination data and develops a list of position title examinations that will be the primary focus of review and analysis for the coming year. In 2018, 7 position titles/options from the 2018 priority list were reviewed compared to the 20 identified as being a priority in 2018. Two additional position titles were reviewed in 2018: 1 position title from the 2017 priority list and 1 not identified on a priority list. According to CMS officials, given the volume of multiple-choice exams and limited staff resources, only a limited number of exams can be reviewed in a given calendar year.

The CMS Test Development Section does not have policies or procedures for developing tests or conducting validity studies and test analyses. Auditors recommended that CMS should draft policies and procedures for these important tasks.

Test Development staff did not receive post-exam survey responses that are applicable to exam content. Auditors recommended that the CMS Division of Examining and Counseling should create a policy to ensure that any survey responses related to exam content are provided to the Test Development Section.

Of the 75 Group A position titles included in the audit resolution, an annual report created by the Illinois Department of Innovation and Technology (DoIT), indicated adverse impact based on race for 28 of these titles in 2017. Of the 28 titles, 6 of these position titles received a test analysis in 2018 or early 2019, and 7 had been reviewed in recent years (2 in 2017 and 5 in 2016). The remaining 15 were last reviewed between 1999 and 2014, but had a small number of hires, which increases the likelihood that the difference in hiring rates could have occurred by chance.

Some applicants were allowed to retake examinations within 30 days, which is a violation of the Illinois Personnel Rules. Auditors found that 64 applicants consisting of 127 entries (out of 226,229 examinations over four calendar years) were allowed to take multiple tests for the same position title within 30 days.

UNIFORM GUIDELINES ON EMPLOYEE SELECTION PROCEDURES

The *Uniform Guidelines on Employee Selection Procedures (1978)* (29 CFR 1607) are federal guidelines designed to assist employers in complying with federal law prohibiting discriminatory employment practices. They are designed to provide a framework for determining the proper use of tests and other selection procedures. The *Uniform Guidelines* were jointly adopted in 1978 by four federal agencies: the Equal Employment Opportunity Commission; Civil Service Commission; Department of Labor; and Department of Justice. In 1979 and 1980, these federal agencies and the Department of Treasury adopted over 90 questions and answers intended to interpret and clarify the provisions of the *Uniform Guidelines*.

The *Uniform Guidelines* apply to tests and other selection procedures which are used as a basis for any employment decision. The use of any selection procedure which has an **adverse impact** on the hiring of members of any race or ethnic group will be considered to be discriminatory and inconsistent with the *Uniform Guidelines*, unless the procedure has been validated in accordance with the *Uniform Guidelines*.

Adverse Impact

- A substantially different rate of selection in hiring, promotion, or other employment decision, which works to the disadvantage of members of a race, sex, or ethnic group

Adverse Impact

A selection procedure is generally considered to have adverse impact if it fails the “four-fifths rule” according to the *Uniform Guidelines*. Adverse impact is determined by calculating the rate of selection for each group (number of hires divided by number of applicants) then dividing each selection rate by the selection rate for the highest group. The four-fifths rule says that the selection rate for any race, sex, or ethnic group should at least equal four-fifths or 80

percent of the selection rate of the group with the highest rate. Any value less than four-fifths, or 80 percent, generally indicates adverse impact. Exhibit 2-1 shows a simplistic example of a four-fifths (or 80 percent) calculation.

| Exhibit 2-1 EXAMPLE OF HOW TO CALCULATE THE FOUR-FIFTHS RULE | | | |
|---|------------|-------|---------------------|
| Race | Applicants | Hires | Selection Rate |
| White | 80 | 48 | $48 \div 80 = 60\%$ |
| Black | 40 | 12 | $12 \div 40 = 30\%$ |
| $30\% \div 60\% = 50\%$ | | | |
| Since 50% is less than 80% (four-fifths), adverse impact is indicated | | | |
| Source: OAG summary of <i>Uniform Guidelines on Employee Selection Procedures (1978)</i> Questions and Answers. | | | |

Adverse impact calculations incorporate the results of employment decisions, which may be influenced in part by a test or by a number of other factors including hiring practices. CMS officials noted some factors beyond the examination process: absolute veterans preference hiring stipulations; agency hiring practices; interview bias; final interview results from a structured interview process; a low number of eligible job applicants for a position; or a low number of actual job hires for a position.

Validity Studies

If adverse impact exists for a specific selection procedure, the selection procedure must be **validated**, which means being able to demonstrate that one or more validity studies have been conducted. The *Uniform Guidelines* recognize three acceptable types of validity studies:

- A **content validity study** should consist of data showing that the content of the exam is **representative of important aspects of performance** on the job. This is the type of validity study used by CMS' Test Development Section.
- A **criterion-related validity study** should consist of empirical data demonstrating that the exam is **predictive of important elements of job performance**. It is a statistical demonstration of a relationship between scores on an exam and job performance of a sample of workers.
- A **construct validity study** should consist of data showing that the exam measures the degree to which **candidates have identifiable characteristics** important to successful job performance. It is a demonstration that an exam measures a construct (something believed to be an underlying human trait or characteristic, such as honesty) and the construct is important for successful job performance.

The CMS Test Development Section uses content validity studies to validate its multiple choice exams. To demonstrate content validity of an exam, the behaviors and/or work products measured by the exam should be shown to be a representative sample of behaviors or work

products of the job. It should also be shown that the selection procedure measures and is a representative sample of the knowledges, skills, and abilities necessary for the job (29 CFR 1607.14C(4)).

The closer the content of an exam is to work samples or work behaviors, the stronger the basis is for showing content validity. As the content of an exam less resembles a work behavior, the less likely the exam is to be content valid, and the greater the need for other evidence of validity.

The *Uniform Guidelines* contain standards for conducting validity studies and outline the corresponding documentation requirements. Content validity reports should include the following information:

- Users, locations, and dates of study;
- Problem and setting;
- Job analysis;
- Selection procedure and its content;
- Relationship between the selection procedure and the job;
- Alternative procedures investigated;
- Uses and applications;
- Contact person; and
- Accuracy and completeness (29 CFR 1607.15C).

While the *Uniform Guidelines* do not provide a number of years at which a validity study is outdated, the guidelines acknowledge that validity studies could still be current if all circumstances remain the same and the validation strategy and relevant labor market are considered.

The *Uniform Guidelines* state that employment agencies, including State employment agencies, should follow the standards in the *Uniform Guidelines* for determining adverse impact. If adverse impact exists, the agency should comply with the guidelines. These guidelines do not require a user to conduct validity studies of selection procedures where no adverse impact results. However, all users are encouraged to use selection procedures which are valid, especially users operating under merit principles (29 CFR 1607.10(A) and 1607.1(B)).

The *Uniform Guidelines* discuss the concepts of **bias** and **fairness**; however, it is within the context of technical standards for a criterion-related validity study, which is not the type used by CMS. A test or other selection procedure would be **biased** or **unfair** when members of one race, sex, or ethnic group characteristically obtain lower scores than members of another group and the differences in scores are not reflected in differences in job performance. Similar to adverse impact, an investigation into fairness would include a review of the evidence of validity.

INDUSTRY STANDARDS

There are two primary professional standards designed to provide guidance for the evaluation of tests and testing practices.

- *Standards for Educational and Psychological Testing (Standards)* – First published in 1966, the most recent edition of these standards was issued jointly in 2014 by: 1) the American Educational Research Association; 2) the American Psychological Association; and 3) the National Council on Measurement in Education. The purpose of the *Standards* is to provide criteria for the development and evaluation of tests and testing practices and to provide guidelines for assessing the validity of interpretations of test scores for the intended test uses.
- *Principles for the Validation and Use of Personnel Selection Procedures (Principles)* – The fourth edition of the *Principles* was issued in 2003, and during the course of this audit, a fifth edition was issued (August 2018). The *Principles* are issued by the Society for Industrial and Organizational Psychology. They provide principles regarding the conduct of selection and validation research and the application and use of selection procedures. The *Principles* are intended to be consistent with the *Standards*. They are intended as an informational document and does not mandate specific approaches or actions.

Fairness and bias are issues to consider when validating a test. However, there are many definitions of fairness and bias presented in the *Standards* and the *Principles*, which makes them less clear and more difficult to define.

Fairness

According to the *Principles* and the *Standards*, there is no single definition of fairness. The *Principles* list four different meanings:

- The first meaning views fairness as requiring equal group outcomes (e.g. equal passing rates for subgroups of interest). This definition is rejected by the *Standards*, although they realize that group differences should be scrutinized for possible bias.
- The second meaning views fairness in terms of equitable treatment of all examinees. Equitable treatment is defined in terms of testing conditions, access to practice materials, performance feedback, retest opportunities, and other features of test administration, including providing reasonable accommodations for test takers with disabilities where appropriate.
- The third meaning views fairness as requiring that examinees have a comparable opportunity to learn the subject matter covered by the test. While the *Standards* note that this perspective is most prevalent in educational achievement testing, there are industry standards for employment testing that say test resources should be available to all applicants, if they are provided at all.
- The fourth meaning views fairness as a lack of predictive bias.

Ultimately, the *Principles* conclude that there is agreement that issues of equitable treatment, predictive bias, and scrutiny for possible bias when subgroup differences are observed, are important concerns in personnel selection; however, there is not agreement on the

definition of fairness. The *Standards* officially define fairness as the validity of test score interpretations for intended uses for individuals from all relevant subgroups.

Bias

The *Standards* discuss bias in testing but use terms that make the concept difficult to understand. The *Standards* define bias as it relates to 1) test fairness and 2) statistics or measurement:

1. *In test fairness, **construct underrepresentation** or **construct-irrelevant** components of test scores that differentially affect the performance of different groups of test takers and consequently the reliability/precision and validity of interpretations and uses of their test scores.*
2. *In statistics or measurement, systematic error in a test score.*

Construct underrepresentation

- The extent to which a test fails to capture important aspects that the test is intended to measure

Construct-irrelevant

- Variance in test scores that is attributable to extraneous factors

The *Standards* note that, in the employment context, evidence of bias or lack of bias generally relies on the analysis of predictive bias. The *Principles* define bias as variance due to contamination or deficiency that differentially affects the scores of different groups of individuals. However, the *Principles* also differentiate between predictive bias and measurement bias:

- Predictive bias is found when, for a given subgroup, consistent nonzero errors of prediction are made for members of the subgroup.
- Measurement bias refers to sources of irrelevant variance that result in systematically higher or lower scores for members of particular groups.

Other sources provide easier to understand definitions of test bias. The Glossary of Education Reform (a service of the Great Schools Partnership, a nonprofit school-support organization) notes that educational tests are considered biased if a test design, or the way results are interpreted and used, systematically disadvantages certain groups over others.

VALIDITY STUDIES

Conducting a validity study is a significant part of documenting that an examination is testing important aspects of a job. The process of validation is the establishment of a clear relationship between a selection procedure and the requirements of successful job performance.

CMS' Process for Conducting Validity Studies

CMS' Test Development Section conducts validity studies of State-administered exams when they are developed, when job duties or requirements are changed significantly for an existing position, or when concerns are expressed by an agency. Exhibit 2-2 provides a generalization of CMS' process for conducting validity studies. Based on need, CMS conducts a comprehensive validity study or a more streamlined validity study, which is a bit narrower in scope.

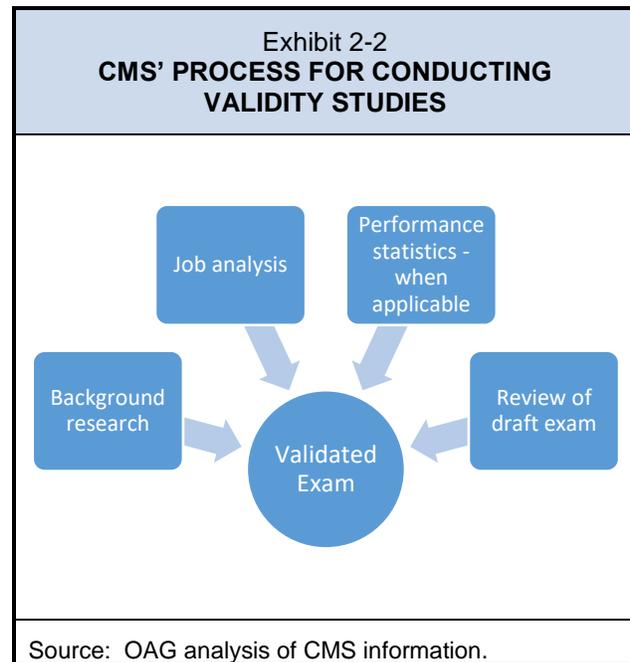
In the case of a newly developed exam, a more comprehensive validity study is typically conducted. The process starts with **background research**, which includes general internet searches and a review of other states' research, professional standards, and a database maintained by the U.S. Department of Labor, Employment and Training Administration (O*NET).

A crucial part of a content validity study is the **job analysis**. A job analysis consists of a review of class specifications and position descriptions and the inclusion of job experts to thoroughly and accurately analyze the job duties and knowledges, skills, and abilities required for the position. Job experts are an important part of ensuring the test content accurately reflects job duties.

According to CMS staff, when an exam exists, but needs to be updated significantly, usually a more streamlined validity study is conducted. It is considered streamlined because much of the same work goes into it, but since an exam already exists, less work is required. Because an exam already exists and has been administered, **performance statistics** can be included. This statistical analysis describes how the exam is performing, such as whether the questions are too easy or too difficult or if the questions show a strong correlation to the job factors identified.

Based on all the information available, questions are compiled, and a **draft exam** is created. This draft exam is reviewed by CMS Test Development staff and job experts and revised as necessary. The final product of the process is a validated exam.

According to CMS officials, the validity study process takes about three to six months. Four of the eight validity studies in the auditors' testing sample took over six months to complete.



Content Validity Study Testing

Auditors tested 10 Group A automated testing position title files to determine if a content validity study was conducted for each. CMS officials were able to provide content validity studies for 8 of the 10 position titles.

The eight validity studies auditors tested took between 41 and 852 days to complete as presented in Exhibit 2-3. The median and average number of days for the validity studies sampled was 156 and 247, respectively. However, the study that took 852 days was an anomaly. When auditors reviewed that study, they found that the user agency, which had initially requested to update the current exam, later determined a new exam should be developed. The user agency also requested postponing development of the new exam by six months in order to be able to devote the appropriate time to the test development. These requests added several months to the process. When the median and average are calculated without the 852 day study, they drop to 104 and 161 days, respectively.

| Exhibit 2-3 CONTENT VALIDITY STUDY TESTING | | | |
|---|-------------------------------------|------------------------|--------------------|
| Position Title | Start Date | End Date | Days to Completion |
| Meat & Poultry Inspector Trainee | Dec. 19, 1997 | Apr. 19, 2000 | 852 |
| Office Assistant ¹ | Jan. 2002 | Nov. 2002 ² | 304 |
| Social Services Career Trainee | Jun. 4, 2014 | Mar. 9, 2015 | 278 |
| Support Service Worker | Oct. 15, 1998 | May 10, 1999 | 207 |
| Highway Maintainer | Sept. 9, 2016 | Dec. 22, 2016 | 104 |
| Unemployment Insurance Revenue Analyst II ¹ | Jan. 1993 | Apr. 13, 1993 | 102 |
| Revenue Tax Specialist Trainee | Oct. 18, 2013 | Jan. 17, 2014 | 91 |
| Public Aid Eligibility Assistant ¹ | Jul. 22, 1987 | Sept. 1987 | 41 |
| Site Technician II | Content Validity Study not provided | | |
| Employment Security Program Representative | Content Validity Study not provided | | |
| Note: ¹ Days to Completion was calculated using the first of the month when a specific date was not available. ² Exam implementation date was used in the absence of a validity study completion date. | | | |
| Source: OAG content validity study testing. | | | |

Auditors' testing showed three of the validity studies provided were conducted during test development and five were conducted after the exam had been administered. These five were triggered by requests from the using agencies to review the current exam, changes to class

specifications, and upon initiation by CMS' Test Development Section due to the age of the exam and the time elapsed since an exam was reviewed by job experts.

Auditors found that the eight validity studies tested generally met the standards provided in the *Uniform Guidelines*. Auditors' testing showed that all eight validity studies, both those labeled by CMS as comprehensive and streamlined, contained evidence of consultation with job experts. Job experts took part in various activities including: reviewing work behaviors and job factors; reviewing existing and newly created exams; and reviewing section weights and grade cutoffs.

CMS officials said it cannot be assumed that validity studies were never conducted for the remaining two titles for which content validity studies were not available. According to CMS officials, most of these exams were originally developed many years ago, perhaps as long as 30 to 40 years, and original paper files may have been purged over the years due to limited filing space as well as the age of the exams and supporting documentation.

For the two titles for which validity studies were not provided, auditors reviewed other available documentation including test analyses and notes in the files. A test analysis is very statistical in nature and measures the performance of a test and whether the test questions are measuring what they are supposed to measure. Due to its statistical nature, a test analysis can only be done properly if an exam has been administered to a sizeable number of applicants. The primary goal of the test analysis is to identify test questions which are ineffective (too easy, too difficult, not reliable, etc.). As part of the test analysis, CMS Test Development officials conduct a comprehensive review of various documents such as job descriptions, class specifications, previous analyses and reports, and test development histories. Reviewing these documents helps staff ascertain whether or not the knowledges, skills, and abilities tested are consistent with current duties, responsibilities, and qualifications of the title in question. Review of these items helps ensure the content of the exam is job related.

Auditors found that the test analysis for one of the two titles discusses examining the class specifications and user-agency position descriptions to determine if the test competency areas and test content are accurate reflections of current duties, responsibilities, and knowledges. Further, notes in the file for this title mention consulting job experts. Job experts play a vital role in the process of reviewing test content and ensuring the knowledges, skills, and abilities tested are those which are job related and critical to job success.

The second position title, however, had not received a test analysis since 2008, and the test analysis did not mention a review of class specifications or position descriptions or the use of job experts. Also, the test analysis notes that the last revisions to test content were minor and were made in 1996 when the exam was placed on the automated testing system. CMS officials could not provide the exact date the original exam was implemented, but said it was implemented at some point prior to 1989. There were no documents in the file other than the test analysis and the accompanying statistics. This position title has been flagged the last three years as being a priority to review, has been indicated as demonstrating adverse impact, and the number tested and hired was on the rise from 2015 to 2017.

Retention of Appropriate Validation Documentation

Auditors asked CMS staff to provide a list of content validity studies for each of the Group A titles and when each study was conducted. CMS officials noted that they could potentially provide the information requested through a search of electronic and paper files, but it would be unduly burdensome and time consuming given the number of exams, limited staff resources, and other pressing projects. Additionally, as noted previously, auditors identified one of ten titles for which CMS could not provide documentation related to validity of the content of the exam. If management cannot easily identify which titles have received a content validity study, then CMS could have a difficult time demonstrating that an exam’s content has been validated and therefore could be at a greater risk of a lawsuit on the basis of discrimination.

| RETENTION OF APPROPRIATE VALIDATION DOCUMENTATION | |
|---|---|
| RECOMMENDATION NUMBER 1 | <i>The Department of Central Management Services should ensure a system is in place to track when a validity study was conducted for each title and retain appropriate documentation to confirm that each exam has been properly validated.</i> |
| DEPARTMENT OF CENTRAL MANAGEMENT SERVICES RESPONSE | We agree. There were some validity studies for titles with missing dates when our system was created in the early 1990’s. This information was not captured in the current system as these validity studies predated its creation. We will continue to keep all of our records up to date as changes occur. |

CMS TEST ANALYSIS

In addition to content validity studies, CMS also conducts test analyses on position titles, which include a comprehensive review of documents such as job descriptions, class specifications, test development history, and previous analyses and test performance. While test analyses might review job descriptions and other content related items, their main purpose is to evaluate if the exam is working the way it should and testing the things it is intended to test. For example, statistics are run for each question to determine if it is too difficult or too easy and if the question is too related to the other questions. Grade cutoff scores are also analyzed and revised if necessary. Position titles that receive these test analyses are selected based upon a prioritization ranking determined by CMS’ Test Development Section.

Auditors requested the most recent test analysis date for all Group A position titles listed in the audit resolution. This can be seen in Appendix C, along with test changes and implementation dates for the original and current exam forms. The audit resolution lists 75 position titles to examine, which results in 112 exams after accounting for all different options within certain position titles (i.e., Automotive Mechanic Option 1 for light duty vehicles and Option 2 for medium/heavy trucks). CMS could not provide dates for the most recent test

analysis for 36 exams (32%), and 46 exams (41%) had an unknown implementation date for the original exam. As of March 2019, for titles for which data was available, approximately 89 percent (68 of 76) received a test analysis since 2007. About 82 percent (92 of 112) of current exam forms were implemented in 2007 or later.

CMS Test Review Prioritization

When resources allow, CMS' Test Development Section analyzes the previous year's examination data and develops a list of position title examinations that will be the primary focus of review and analysis for the coming year. This Test Review and Analysis Report documents the prioritization strategy for review of the CMS examinations. All Group A (continuous testing) multiple choice examinations and Group B (scheduled testing as needed) exams with 20 or more administrations in a year are prioritized for review and analysis based upon seven variables:

- Test Implementation Date: Year in which the test currently in production was developed and implemented.
- Applicant Testing Volume: Number of applicants tested using the exam procedure in the calendar year.
- Applicant Hiring Volume: Number of eligible candidates hired in the title in the calendar year.
- "A" Grade Percentage: Percentage of applicants achieving "A" grades on the exam title in the calendar year.
- Fail Grade Percentage: Percentage of applicants receiving fail grades on the exam title in the calendar year.
- Adverse Impact: Evidence of adverse impact on applicant racial and/or sex subgroups resulting from administration of the test procedure.
- Test Performance Analysis: Year in which applicant test performance was last analyzed using statistical measures.

The exams with the highest number of points are considered the highest priority for review and analysis. According to the Test Review and Analysis Report, tests with higher priority scores tend to be the tests which were developed and implemented several years ago, have larger testing and hiring volumes, exhibit excessively large or small "A" grade proportions or large fail grade proportions, show evidence of adverse impact, and have not recently been analyzed using statistical measures.

Auditors reviewed the 2016, 2017, and 2018 Test Review and Analysis Reports. For 2019, a new report was not created; instead, the Test Development Section chose to continue reviewing tests identified in the 2018 report.

For 2018, 20 Group A exam titles were identified as the highest priority for review based on the Test Review and Analysis Report. In 2018, 7 position titles/options from the 2018 priority list were reviewed compared to the 20 identified as receiving a priority score in 2018. Two additional position titles were reviewed in 2018: 1 position title from the 2017 priority list and 1 not identified on a priority list.

Because some of the related titles take the same exam, reviewing one title sometimes results in coverage of additional titles. For example, the multiple choice examinations for the Office Aide, Office Clerk, and Office Assistant titles are the same. The Office Assistant and Office Clerk titles were both on the 2018 priority list for review. Because the Office Aide examination is the same examination, this title was essentially reviewed, too. Exhibit 2-4 shows the number of position titles that received a priority score and the number that were reviewed for calendar years 2016 through 2018.

| Exhibit 2-4 NUMBER OF TITLES REVIEWED FROM PRIORITY LIST CY2016-CY2018 | | | |
|---|------|------|------|
| Report Year | 2018 | 2017 | 2016 |
| Group A titles receiving a priority score | 20 | 18 | 30 |
| Titles reviewed from current year priority list | 7 | 4 | 8 |
| Source: OAG analysis of CMS Reports. | | | |

Sometimes titles that received a priority ranking might not be analyzed if an exam was developed and/or analyzed within the past three to four years. Also, according to CMS officials, given the volume of multiple-choice exams and limited staff resources, only a limited number of exams can be targeted for review in a given calendar year.

Test Analysis Testing

Auditors sampled 12 position titles that had received a test analysis within the last five years. Within the 12 was a mix of office and non-office positions. Test analyses are statistical analyses run after a test has been administered. The statistical analyses include reliability testing, correlation analysis, and discrimination index analysis to identify potentially ineffective questions. Auditors reviewed the most recent test analyses for these titles.

CMS' 12 test analyses were thorough and included statistical support, source data, and a comprehensive summary of the analysis. Each summary included information about:

- Agency users;
- Issues with the current test (if any);
- A breakdown of areas covered by the test and the number of questions for each area;
- Test performance analysis (i.e., ethnicity and sex of the sample test takers, most challenging section, least challenging section, average test scores);
- Cutoff scores for passing grades;
- Grade distribution; and
- Any test revision or implementation as a result of the test analysis.

The majority of the files sampled contained position descriptions and/or class specifications. CMS officials noted that these items are readily available to them and sometimes not printed and put in the file as a result. Also, many of the summaries noted a review of these items to verify that knowledges, skills, and abilities assessed on the examination were still an overall accurate reflection of current duties, responsibilities, and knowledge for the position title. Many of these summaries also discussed any differences in test scores between white and minority applicants. Half of the test analyses resulted in a new test form, while the other half simply revised and replaced a few questions. The test analyses also resulted in the changing of cutoff scores.

POLICIES AND PROCEDURES

The CMS Test Development Section does not have policies or procedures for developing tests or conducting validity studies and test analyses. Policies and procedures would establish a standard and guidance for systematically accomplishing these important tasks.

CMS officials use the *Uniform Guidelines* and internal checklists for developing position title examinations. The *Uniform Guidelines* provide a framework for determining the proper use of tests and other selection procedures. The Test Development Section also utilizes a checklist for implementing written and automated exams and revising written and automated exams. These checklists are helpful for guiding staff on the steps that need to be accomplished, but the checklist items are fairly technical in nature and do not provide guidance of how to complete them.

CMS officials explained that although their methodologies for validity studies are consistent, how each study is conducted depends on the project. This flexibility allows CMS to customize validity studies to specific position titles. CMS essentially conducts validity studies, or a streamlined version, depending on time constraints, staff resources, prior work done on the position title, and ability of agencies to provide subject matter experts. Policies and procedures would help outline these circumstances and general decision-making while still allowing flexibility. Policies and procedures would also help communicate to CMS employees when a validity test should be conducted and circumstances in which employees should consider conducting another validity study on a position title. This could be especially helpful to new employees.

The CMS Test Development Section utilizes a checklist for conducting job knowledge test analyses, but does not have policies or procedures for conducting test analyses. CMS uses its Test Review and Analysis Report to determine which exams will be the focus of its review (test analyses); however, there is no requirement to produce this report or guidance on how or when the report should be completed. Policies and procedures could help communicate to CMS employees the frequency at which the Test Review and Analysis Report should be completed and other important information about when and why test analyses should be conducted.

There are only three employees in the CMS Test Development Section, all of whom have been doing the work a substantial number of years and collected a large amount of institutional knowledge. As a result, losing one or more of these employees could create a gap in knowledge.

Translating some of that institutional knowledge into policies and procedures could help reduce knowledge lost when employees leave or retire. Policies and procedures could also help in the training of new employees, which according to CMS officials, takes a very long time. Policies and procedures also help to confirm alignment with management’s expectations and reduce the risk of process-related errors.

On November 15, 2019, during review of the draft report, CMS officials provided two policies not previously discussed or provided:

1. Test Development and Validation Handbook (January 1988, revised February 1995); and
2. Item Analysis using SPSS (December 1989).

In June 2018, at the beginning of the audit, auditors requested all relevant policies and procedures. At that time, CMS responded that there were no relevant policies and procedures. Auditors also reviewed the Bureau of Personnel systems narrative for any relevant documents. While there were policies and procedures documents listed for other Bureau of Personnel sections, the Test Development Section listed no policies and procedures. Auditors also met with Test Development officials on multiple occasions to discuss the process for developing tests and conducting validity studies. We were informed that the Test Development Section did not have written procedures. The policies listed above were never mentioned or provided by Test Development officials. Based on the dates of the policies and since the policies were never mentioned during our multiple meetings with the Test Development Section, it is unclear whether the policies provided are representative of present-day practices and currently in use.

| POLICIES AND PROCEDURES | |
|---|---|
| RECOMMENDATION NUMBER 2 | <p><i>The Department of Central Management Services Test Development Section should draft policies and procedures to clarify steps for employees when:</i></p> <ul style="list-style-type: none"> • <i>Developing new examinations;</i> • <i>Conducting validity studies; and</i> • <i>Conducting test analyses.</i> |
| DEPARTMENT OF CENTRAL MANAGEMENT SERVICES RESPONSE | <p>We agree. Due to the employees being in the unit for a long period of time, they did not have their policies readily available. However, the Department will review the policies, make changes if required, and continue to make updates as the operations of the section change.</p> |

POSITION TITLES AND ADVERSE IMPACT

A selection rate for any race, sex, or ethnic group which is less than four-fifths or 80 percent of the rate for the group with the highest rate will generally be regarded as evidence of adverse impact. The *Uniform Guidelines* require adverse impact determinations be made at least

annually for each group which constitutes at least 2 percent of the labor force in the relevant labor area or 2 percent of the applicable workforce. Every January 15th, the Illinois Department of Innovation and Technology (DoIT) provides CMS with a report that notes which position titles demonstrated an adverse impact for the prior year based on the four-fifths rule. A position title may indicate adverse impact one year but not the next and vice versa.

Adverse impact simply represents a numerical differentiation of hiring rates and does not automatically imply discrimination or discriminatory intent. It does, though, indicate the possibility of discrimination and therefore the exam should be validated as required by the *Uniform Guidelines*. However, according to a clarification to the *Uniform Guidelines*, adverse impact is not enough to warrant a validity study if the number of persons and the difference in selection rates are so small that it is likely that the difference could have occurred by chance. According to CMS officials, CMS' Test Development Section generally conducts validity studies of State-administered exams when they are developed; therefore, all examinations should theoretically have been validated at the exam's inception.

CMS Review of Indication of Adverse Impact

According to CMS officials, a title may be “flagged” on the report as demonstrating adverse impact, but it may not be a result of the examination process. Other factors can cause adverse impact such as:

- Absolute veterans preference hiring stipulations;
- Agency hiring practices;
- Interview bias;
- Final interview results from a structured interview process;
- A low number of eligible job applicants for a position; and
- A low number of actual job hires for a position.

CMS considers an indication of adverse impact in its test review prioritization, but an indication of adverse impact alone does not trigger a review of the position title.

Of the 75 Group A position titles in the audit resolution, the report indicated adverse impact based on race for 28 titles in 2017. Six of these position titles received a test analysis in 2018 or early 2019, and 7 had been reviewed in recent years (2 in 2017 and 5 in 2016). The remaining 15 were last reviewed in 1999 through 2014 with the average number of hires for these titles being 6.6 in 2017. This small number of hires increases the likelihood that the difference in hiring rates could have occurred by chance. Only one of these 15 had more than 20 hires in 2017.

OAG Review of Comments and Surveys

Auditors reviewed exam comments and post-exam surveys taken in calendar years 2015 to 2018 for complaints of bias and found only a few instances of test takers that suggested an exam was biased. After taking an exam, the test taker is given the opportunity to provide comments about specific questions and/or take an optional survey. According to CMS, comments on questions are provided to the Test Development Section for review and adjustments to the questions are made when appropriate.

Auditors searched over 6,300 surveys and nearly 12,000 comments for any of 14 search terms (such as bias, discriminatory, culture, or fair) that could suggest bias based on race or sex. We searched for truncated versions of some of the search terms – for example “discr” instead of discriminatory – to help account for misspelled words. Many of the hits obtained in our searches were not applicable. Over the four calendar years, we identified only 6 surveys (0.09%) and 5 comments (0.04%) that we deemed applicable to the audit’s subject matter.

We followed up with Test Development officials regarding comments and surveys. Applicant feedback reports capture applicant comments; while Test Development staff receive and review the applicant comment reports on a daily basis, they do not receive access to the applicant survey results. Surveys are primarily intended to rate the service at the testing center; however, there is also an area for comments, which has, on occasion, been used to communicate additional comments about the overall exam. While these few instances did not identify or suggest a significant trend, it would be in the best interest of exam takers for any surveys that discuss the content of the exam to be provided to the Test Development Section for review.

| REVIEW OF SURVEY RESPONSES APPLICABLE TO EXAM CONTENT | |
|--|--|
| RECOMMENDATION NUMBER 3 | <i>The Department of Central Management Services Division of Examining and Counseling should create a policy to ensure that any survey responses related to exam content are provided to the Test Development Section.</i> |
| DEPARTMENT OF CENTRAL MANAGEMENT SERVICES RESPONSE | We agree. Due to the few instances of comments involving test questions, the Department did not send the survey responses to the Test Development section. We will do so in the future if they pertain to test questions. |

OTHER ISSUES

Some applicants were allowed to retake examinations within 30 days, which is a violation of Illinois Personnel Rules. Illinois Personnel Rules state that, “No applicant shall be permitted to retake a test or tests included within an examination until 30 days have elapsed” (80 Ill. Adm. Code 302.60(a)). According to CMS procedures, the date of an applicant’s last test is verified manually by CMS staff through a “30 Day Verification” tool on the Windows Computer Assisted Testing System, which shows all exams taken within the last 30 days based on the applicant’s social security number.

Auditors conducted an analysis of exam data provided by CMS for calendar years 2015 through 2018 and found that 64 applicants consisting of 127 entries (out of 226,229 examinations) were allowed to take multiple tests for the same position title within 30 days. These 127 entries were sent to CMS for review. They occurred at all testing centers, but the frequency increased during the four-year audit period. A CMS official responded that while specific reasons for these instances could not be found, there have been times when technical issues, such as computers freezing, systems going down, and programs locking up, resulted in

the applicant being allowed to retest and have the 30-day requirement waived. According to a CMS official, allowing an applicant to retest within the 30-day restriction is rare, and an exception, which should not occur unless there were/are some extenuating circumstances. The Personnel Rules state that this 30-day limitation may be waived when the Director deems it in the best interests of the State (80 Ill. Adm. Code 302.60(a)(1)).

Allowing applicants to retest for the same position titles within 30 days without the Director’s approval violates State policy and gives the appearance that some applicants are receiving special treatment.

| RETESTING WITHIN 30 DAYS | |
|---|--|
| RECOMMENDATION NUMBER 4 | <i>The Department of Central Management Services should document all instances in which an applicant is allowed to retake tests for the same position title inside of the 30-day restriction and the reason for the retest. In these instances, when necessary, the Department should seek waivers from the Director to maintain compliance with Illinois Personnel Rules.</i> |
| DEPARTMENT OF CENTRAL MANAGEMENT SERVICES RESPONSE | The Department acknowledges that there were a few applicants, that were able to retake a test within 30 days. We will send out a reminder to all testing centers reminding them of the importance of documenting the reason for retesting and seeking a waiver, when required. |

Chapter Three

APPLICANT AND HIRING DEMOGRAPHICS

CHAPTER CONCLUSIONS

CMS provided data on applicants who sat for exams during calendar years 2015 through 2018 for the 75 position titles in the audit resolution. Over the past four calendar years, the proportion of applicants in each ethnicity category remained approximately the same.

CMS generally follows the *Uniform Guidelines on Employee Selection Procedures* which are designed to prevent discriminatory practices. CMS also conducts thorough statistical analyses to ensure the exam is testing the items it is intended to test. Despite these efforts to ensure tests are fair and afford all applicants an equal opportunity to compete for State jobs, there is a disparity in test grades among different races and ethnic groups for reasons unknown. According to a CMS official, this disparity is not new and, many years ago, Test Development staff attempted to find the reason for the disparity in test grades among different race/ethnic groups. Test Development staff found that the groups that attained lower overall test grades typically had significantly less formal education. The official added that this finding, coupled with socioeconomic factors and less opportunity, may contribute to the disparity.

For calendar years 2015 through 2018, the overall pass rate ranged from a high of 84.0 percent in 2015 to a low of 81.8 percent in 2018, with an average of 82.9 percent. The pass rate for White test takers was consistently above the overall pass rate, with an average of 87.6 percent, while the remaining ethnicity categories were generally below the overall pass rate. However, for 2018, the pass rates for both Asian applicants (83.1%) and American Indian or Alaska Native applicants (84.5%) also rose above the overall pass rate. The 2018 pass rates ranged from 86.4 percent (White applicants) to 76.0 percent (Black or African American applicants).

White applicants had a high ratio of A grades compared to their ratio of applications and passing grades. Conversely, Black or African American applicants had a low percentage of A grades compared to their ratio of applications and passing grades. State agencies are required to hire from the group of candidates that received the highest passing grade. Therefore, if a certain ethnic group is receiving less A grades than other ethnic groups, that ethnic group will not be represented as well in the hiring pool.

CMS provided hiring results for the applicants who tested and were hired during calendar years 2015 through 2018. Only a small percentage of applicants who apply are hired. Of the 226,229 examinations taken, only 2,585 (1.1%) of these resulted in an applicant being hired during calendar years 2015 through 2018. All applicants who were eventually hired were hired based on passing grades, as required by Illinois Personnel Rules.

Of the 2,585 employees hired who tested in calendar years 2015-2018, nearly 28.8 percent were veterans. Veterans comprised about 8.0 percent of all applicants. While only 1.1 percent of all applicants were hired, the hiring rate for veterans was about 4.1 percent.

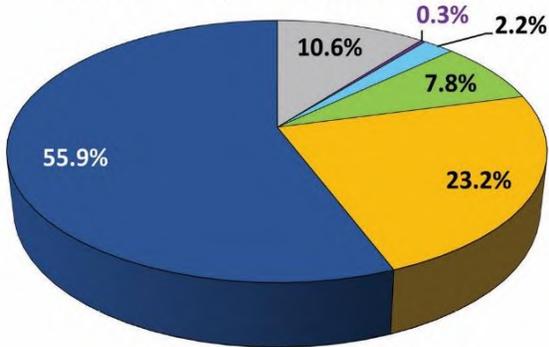
White, Asian, and Hispanic or Latino applicants accounted for a higher percentage of hires than their respective percentage of total applicants. For example, Hispanic or Latino applicants made up 7.7 percent of all applicants, 7.2 percent of all passing grades, and 10.6 percent of all hires. On the other hand, Black or African American applicants made up 22.8 percent of all applicants, 21.1 percent of all passing grades, and about 16.6 percent of hires.

APPLICANT DEMOGRAPHIC INFORMATION

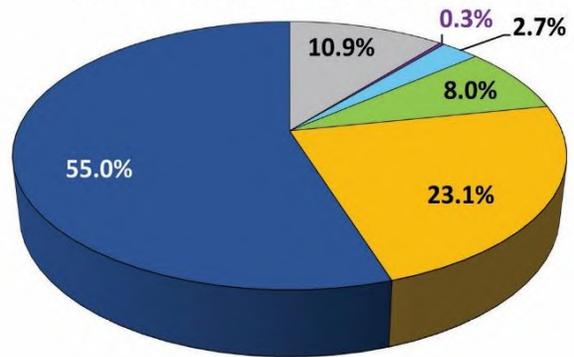
CMS provided data on applicants that sat for exams during calendar years 2015 through 2018 for the 75 position titles in the audit resolution. Over the past four calendar years, the proportion of applicants in each ethnicity category remained approximately the same. Exhibit 3-1 provides a breakdown of applicant demographics by CMS' ethnicity categories and calendar year. Applicants for the 75 titles for the 4-year period dropped from 68,033 in 2015 to 52,082 in 2018. About 11 percent of applicants did not provide a response regarding their ethnicity, which was the third largest group of applicants, following the White and Black or African American ethnicity categories.

Exhibit 3-1
APPLICANT DEMOGRAPHIC INFORMATION
 Calendar Years 2015 to 2018

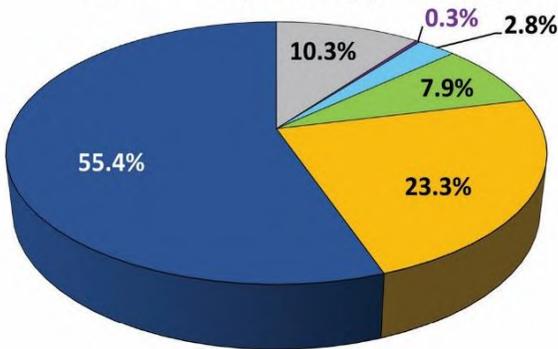
2015 – 68,033 Applicants



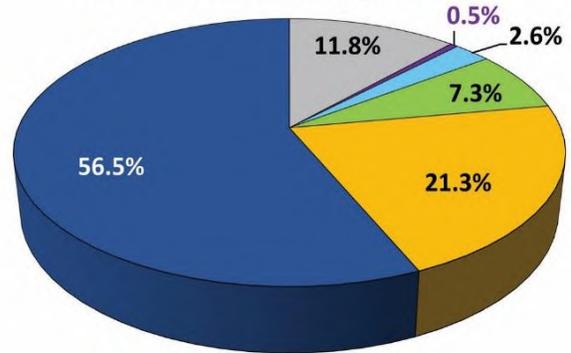
2016 – 54,596 Applicants



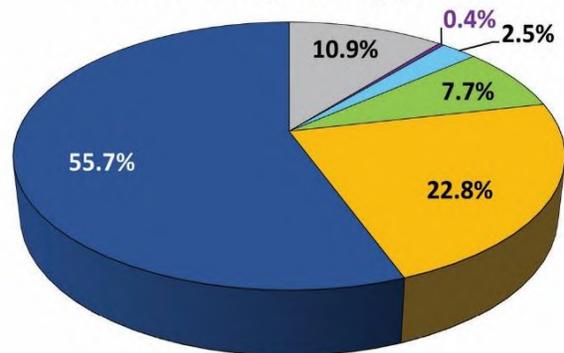
2017 – 51,518 Applicants



2018 – 52,082 Applicants



TOTAL – 226,229 Applicants

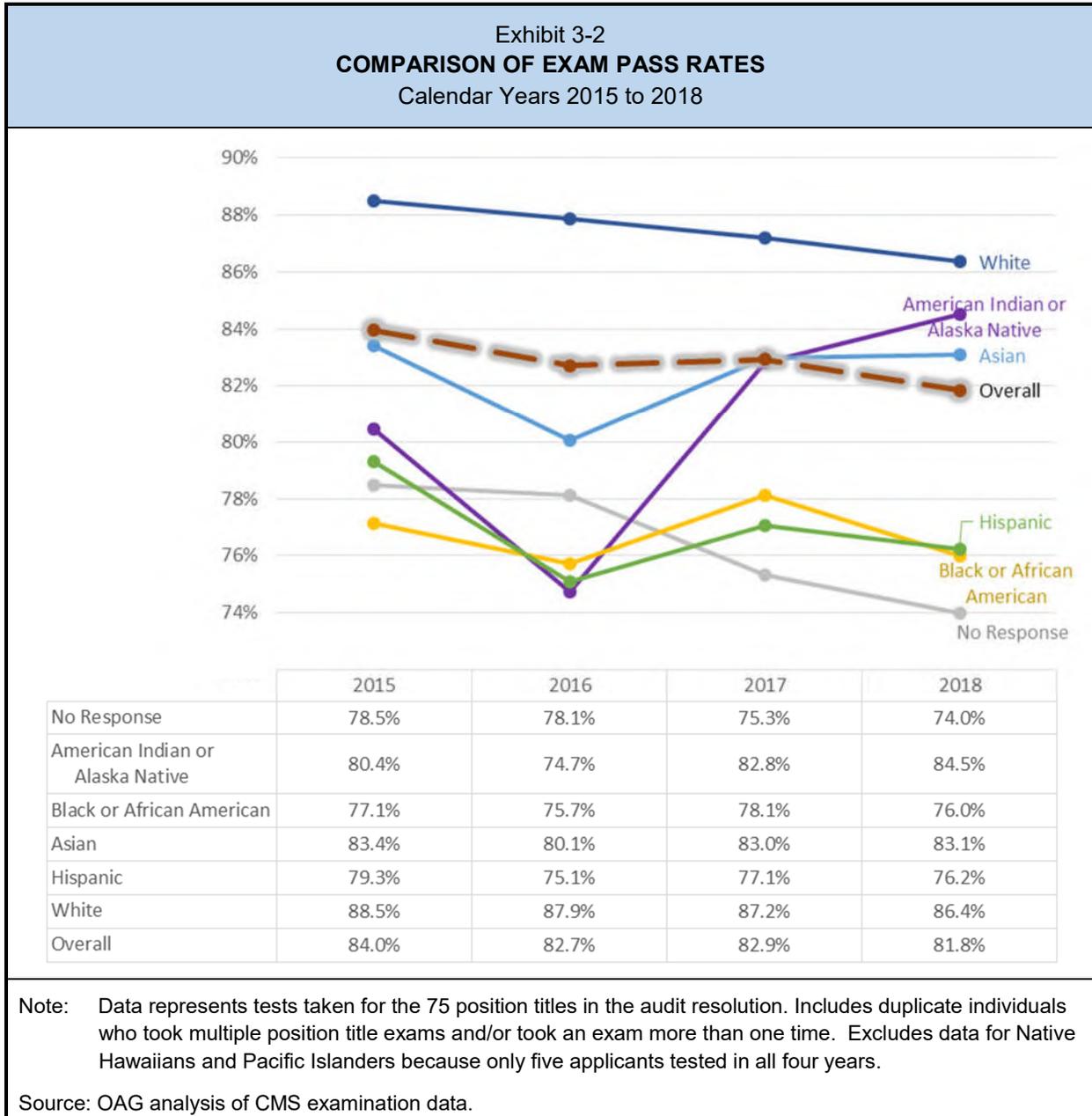


- No Response
- American Indian or Alaska Native
- Asian
- Hispanic or Latino
- Black or African American
- White

Note: The Native Hawaiian and Pacific Islander category is not represented in the charts due to so few applicants (five applicants in all four years).

Source: OAG analysis of CMS examination data.

Exhibit 3-2 shows the overall pass rate and pass rates by ethnicity category. The pass rate is the total number of passing grades (A, B, or C) divided by the number of total applicants. Generally, all ethnicity categories had lower pass rates in 2018 than in 2015. For calendar years 2015 through 2018, the overall pass rate ranged from a high of 84.0 percent in 2015 to a low of 81.8 percent in 2018, with an average of 82.9 percent.



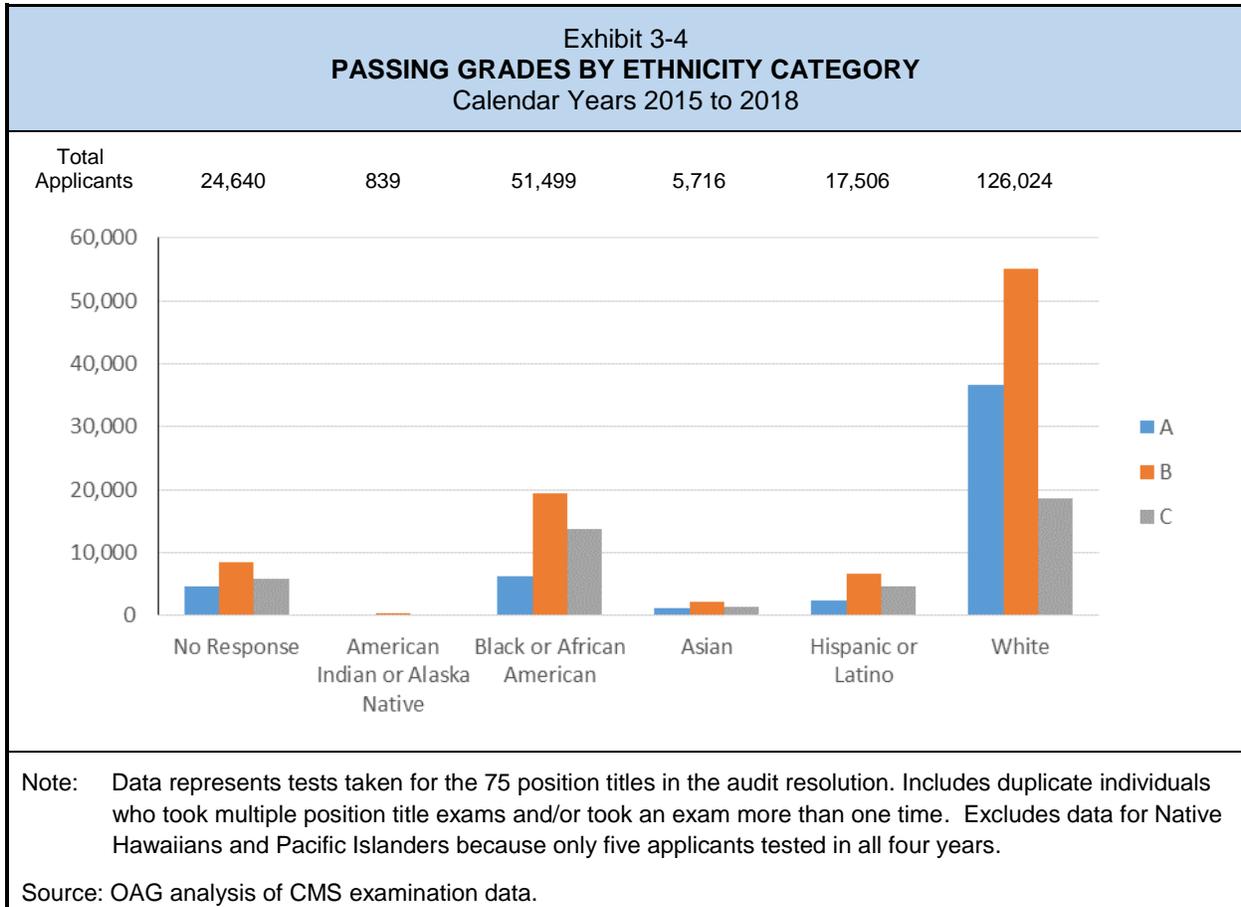
The pass rate for White test takers was consistently above the overall pass rate, with an average of 87.6 percent, while the remaining ethnicity categories were generally below the overall pass rate. However, for 2018, the pass rates for both Asian applicants (83.1%) and American Indian or Alaska Native applicants (84.5%) also rose above the overall pass rate. The 2018 pass rates ranged from 86.4 percent (White applicants) to 76.0 percent (Black or African

American applicants). The applicants who did not provide a response regarding their ethnicity had a pass rate of 74.0 percent.

We also examined passing rates for each individual exam title. Many exams had similar pass rates by ethnicity category while others showed wide disparities. Exhibit 3-3 shows two examples of pass rates by ethnicity. Appendix D contains this information for all of the position titles specified in the audit resolution.

| Exhibit 3-3 EXAMPLES OF POSITION TITLE PASS RATES Calendar Years 2015 to 2018 | | | | | | | | |
|---|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|--|
| Title | Ethnicity Category | | | | | | | |
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response | |
| Employment Security Program Representative (2,677 applicants) | | | | | | | | |
| Pass Rates (%) | 94.2% | 90.7% | 89.1% | 90.5% | 100.0% | 100.0% | 82.4% | |
| Human Resources Associate – Option 1 (2,983 applicants) | | | | | | | | |
| Pass Rates (%) | 86.0% | 59.5% | 62.9% | 70.2% | 83.3% | - | 68.5% | |
| Source: OAG analysis of CMS examination data. | | | | | | | | |

Exhibit 3-4 shows the number of passing grades (A, B, or C) by ethnicity category. Exhibit 3-5 provides the percentage of each of these grades by ethnicity category. Of the passing exams, 51,381 were As, 44,189 were Bs, and 92,059 were Cs. White applicants represented 55.7 percent of applicants and 58.8 percent of passing grades. Black or African American applicants represented 22.8 percent of applicants and 21.1 percent of passing grades. Similarly, Hispanic or Latino applicants represented 7.7 percent of all applicants and 7.2 percent of passing grades. Asian, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander applicants had percentages of passing grades which mirrored their percentages of applications.



| Exhibit 3-5 PASSING GRADE PERCENTAGES BY ETHNICITY CATEGORY Calendar Years 2015 to 2018 | | | | | |
|--|---------|---------|---------|---------------------------|-----------------------|
| Ethnicity Category | % of As | % of Bs | % of Cs | % of Total Passing Grades | % of Total Applicants |
| White | 71.4% | 59.9% | 42.0% | 58.8% | 55.7% |
| Black or African American | 12.2% | 21.1% | 31.2% | 21.1% | 22.8% |
| Hispanic or Latino | 4.7% | 7.1% | 10.2% | 7.2% | 7.7% |
| Asian | 2.3% | 2.4% | 3.0% | 2.5% | 2.5% |
| American Indian or Alaska Native | 0.4% | 0.4% | 0.4% | 0.4% | 0.4% |
| No Response | 9.0% | 9.2% | 13.1% | 10.1% | 10.9% |
| Note: Data represents tests taken for the 75 position titles in the audit resolution. Includes duplicate individuals who took multiple position title exams and/or took an exam more than one time. Excludes data for Native Hawaiians and Pacific Islanders because only five applicants tested in all four years. Source: OAG analysis of CMS examination data. | | | | | |

White applicants also had a high ratio of A grades compared to their ratio of applicants and passing grades. Conversely, Black or African American applicants had a low percentage of A grades compared to their ratio of applicants and passing grades. As shown in Exhibit 3-5, White applicants received 71.4 percent of A grades while comprising only 55.7 percent of total applicants. Black or African American applicants received 12.2 percent of A grades while comprising 22.8 percent of total applicants. State agencies are required to hire from the group of candidates that received the highest passing grade. Therefore, if a certain ethnic group is receiving less A grades than other ethnic groups, that ethnic group will not be represented as well in the hiring pool.

CMS generally follows the *Uniform Guidelines on Employee Selection Procedures* which are designed to prevent discriminatory practices. CMS also conducts thorough statistical analyses to ensure the exam is testing the items it is intended to test. Despite these efforts to ensure tests are fair and afford all applicants an equal opportunity to compete for State jobs, there is a disparity in test grades among different races and ethnic groups for reasons unknown. According to a CMS official, this disparity is not new and, many years ago, Test Development staff attempted to find the reason for the disparity in test grades among different race/ethnic groups. Test Development staff found that the groups that attained lower overall test grades typically had significantly less formal education. The official added that this finding, coupled with socioeconomic factors and less opportunity, may contribute to the disparity.

APPLICANT HIRING INFORMATION

CMS provided hiring results for the applicants that tested and were hired during calendar years 2015 through 2018. Exhibit 3-6 presents the number of hires per year by ethnicity category. Only a small percentage of applicants who apply are hired. Of the 226,229 examinations taken, only 2,585 (1.1%) of these resulted in an applicant being hired. However, the exhibit does not include employees that tested in 2018, but were not hired until 2019. The exhibit also does not reflect employees that tested in 2014 or before and were not hired until 2015. Individuals with veteran status accounted for nearly 29 percent of all hires.

All applicants who were eventually hired were hired based on passing grades. Illinois Personnel Rules state that, “When an appointment to a position is made from an eligible list resulting from an open competitive or promotional examination, such appointment shall be made of the person standing among those who are available within the 3 highest grades...” (80 Ill. Adm. Code 302.110). These grades are coded as A, B, and C. Auditors compared hire data to applicant grades and confirmed that all hirees received passing grades.

| Exhibit 3-6 HIREE DEMOGRAPHIC INFORMATION Calendar Years 2015 to 2018 | | |
|---|--------------|---------|
| Ethnicity Category | Total | Percent |
| White | 1,529 | 59.1% |
| Black or African American | 430 | 16.6% |
| Hispanic or Latino | 273 | 10.6% |
| Asian | 88 | 3.4% |
| American Indian or Alaska Native | 11 | 0.4% |
| Native Hawaiian or Other Pacific Islander | 0 | 0.0% |
| No Response | 254 | 9.8% |
| Total | 2,585 | |
| Notes: Data represents hires that took tests, during calendar years 2015 to 2018, for the 75 position titles in the audit resolution. Applicants who tested in 2014, but were hired in 2015 or later are not reflected in this exhibit. Source: OAG analysis of CMS hire data. | | |

The same 10 position titles have had the 10 highest number of examinations administered during calendar years 2015 through 2018. Exhibit 3-7 provides a list of these 10 position titles, the number of exams administered, and the number of applicants hired. The top 10 position titles based on examinations administered represent 67.0 percent of all examinations.

Exhibit 3-8 presents the 10 position titles with the highest number of hires, as well as the number of exams administered. The 4 shaded position titles indicate titles that appear on both top 10 lists. The top 10 position titles based on the number of hires account for 78.8 percent of all hires.

| Exhibit 3-7 TOP 10 POSITION TITLE EXAMS ADMINISTERED Calendar Years 2015 to 2018 | | |
|---|--------------------|------------------|
| Position Title | Exams Administered | Applicants Hired |
| Office Assistant | 35,052 | 100 |
| Office Clerk | 33,637 | 0 |
| Office Associate | 19,311 | 221 |
| Office Aide | 14,370 | 0 |
| Office Coordinator | 12,551 | 49 |
| Office Specialist | 12,169 | 0 |
| Social Services Career Trainee | 6,759 | 467 |
| Public Aid Eligibility Assistant | 6,119 | 79 |
| Human Resources Associate | 5,759 | 0 |
| Human Resources Assistant | 5,746 | 1 |
| Note: Shaded position titles indicate titles that appear on both top 10 lists. | | |
| Source: OAG analysis of CMS examination data. | | |

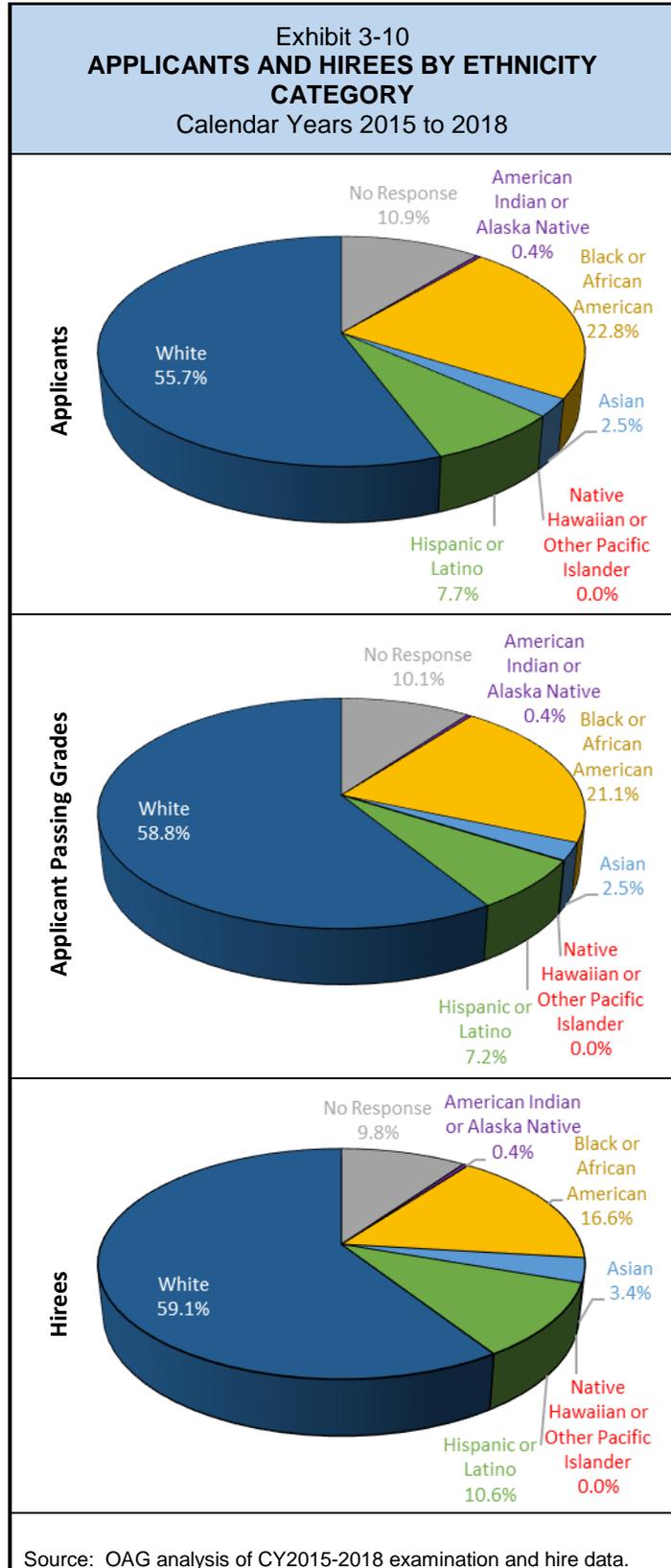
| Exhibit 3-8 TOP 10 POSITION TITLE HIRES FOR EXAMINATIONS ADMINISTERED Calendar Years 2015 to 2018 | | |
|--|--------------------|------------------|
| Position Title | Exams Administered | Applicants Hired |
| Social Services Career Trainee | 6,759 | 467 |
| Highway Maintainer | 4,054 | 421 |
| Revenue Tax Specialist Trainee | 1,592 | 241 |
| Office Associate | 19,311 | 221 |
| Support Service Worker | 4,355 | 176 |
| Security Therapy Aide Trainee | 2,774 | 150 |
| Employment Security Program Representative | 2,677 | 101 |
| Office Assistant | 35,052 | 100 |
| Account Technician I | 2,127 | 80 |
| Public Aid Eligibility Assistant | 6,119 | 79 |
| Note: Shaded position titles indicate titles that appear on both top 10 lists. | | |
| Source: OAG analysis of CMS hire data. | | |

Of the 2,585 employees hired who tested in calendar years 2015-2018, 28.8 percent were veterans. Veterans comprised about 8.0 percent of all applicants. While only 1.1 percent of all applicants were hired, the hiring rate for veterans was about 4.1 percent. Exhibit 3-9 provides data on veteran applicants and hires by ethnicity category.

| Exhibit 3-9 VETERAN APPLICANTS AND HIRES Calendar Years 2015 to 2018 | | | | |
|---|--------------------|-------------------------------|---------------|---|
| Ethnicity Category | Veteran Applicants | % of Total Veteran Applicants | Veteran Hires | % of Veteran Applicants that were Hired |
| White | 11,599 | 63.8% | 503 | 4.3% |
| Black or African American | 3,321 | 18.3% | 111 | 3.3% |
| Hispanic or Latino | 1,097 | 6.0% | 34 | 3.1% |
| Asian | 243 | 1.3% | 8 | 3.3% |
| American Indian or Alaska Native/ Native Hawaiian or Other Pacific Islander | 89 | 0.5% | 5 | 5.6% |
| No Response | 1,821 | 10.0% | 83 | 4.6% |
| Total | 18,170 | | 744 | 4.1% |
| Note: Data represents tests taken for the 75 position titles in the audit resolution. Includes duplicate individuals who took multiple position title exams and/or took an exam more than one time. Source: OAG analysis of CMS examination and hire data. | | | | |

COMPARISON OF APPLICANTS TO HIREES

Exhibit 3-10 shows a comparison of the breakdown by ethnicity category for the applicants in the audit period, the percentage of applicants receiving passing grades, and the hiring results for those applicants. White, Asian, and Hispanic or Latino applicants accounted for a higher percentage of hires than their respective percentage of total applicants. For example, Hispanic or Latino applicants made up 7.7 percent of all applicants, 7.2 percent of all passing grades, and 10.6 percent of all hires. On the other hand, Black or African American applicants made up 22.8 percent of all applicants, 21.1 percent of all passing grades, and about 16.6 percent of hires.



APPENDICES

APPENDIX A
HOUSE RESOLUTION NUMBER 816

STATE OF ILLINOIS
HOUSE OF REPRESENTATIVES
100TH GENERAL ASSEMBLY

HOUSE RESOLUTION NO. 0816

OFFERED BY REPRESENTATIVES LA SHAWN K. FORD-AL RILEY-CAMILLE Y. LILLY

WHEREAS, The Department of Central Management Services conducts testing in the form of an automated multiple choice exams for multiple positions, including, but not limited to: Account Clerk I & II; Account Technician I; Accountant/Accountant Advanced/Accountant Supervisor; Administrative Services Worker Trainee; Automotive Mechanic Options 1 & 2; Building/Grounds Laborer; Building/Grounds Maintenance Worker; Clerical Trainee; Corrections Food Service Supervisor I; Data Processing Administrative Specialist; Data Processing Assistant, Options 1 & 2; Data Processing Specialist; Data Processing Technician; Data Processing Technician Trainee; Dietitian; Disability Claims Adjudicator Trainee; Electronic Equipment Installer/Repairer; Employment Security Program Representative; Employment Security Program Representative - Intermittent; Employment Security Service Representative; Executive Secretary I, II, & III, Options 2 & 3; Firearms Eligibility Analyst Trainee; Forensic Scientist Trainee, Options A, B & C; Guard II; Highway Maintainer; Human Resources Assistant, Options 1 & 2; Human Resources Associate, Options 1 & 2; Human Rights Investigator Trainee; Information Systems Analyst I, II, & III; Insurance Analyst I & II, Option 2; Insurance Performance Examiner I - Options 1 & 2; Intermittent Clerk, Options 1 & 2; Intermittent Laborer - Maintenance; Laboratory Assistant; Maintenance Equipment Operator; Maintenance Worker; Meat & Poultry Inspector Trainee; Natural Resources Technician I; Office Administrator I, II, III, IV, V, Options 1, 2, & 3; Office Aide/Office Clerk/Office Assistant, Options 1, 2, & 3; Office Assistant/Office Clerk, Option 5; Office Associate, Options 1, 2, & 3; Office Coordinator/Office Specialist, Options 1, 2, & 3; Office Coordinator/Office Specialist, Option 4; Office Administrative Specialist, Option 4; Pharmacy Technician; Public Aid Eligibility Assistant; Rehabilitation Case Coordinator I; Residential Care Worker Trainee-Cook/Morgan County; Revenue Tax Specialist Trainee; Security Therapy Aide Trainee; Site Security Officer; Site Technician II; Social Services Career Trainee; Stores Clerk; Support Service Worker; Switchboard Operator I; Telecommunicator Trainee; Unemployment Insurance Revenue Analyst I; Unemployment Insurance Revenue Analyst II; Unemployment Insurance Revenue Specialist; and Veterans Employment Representative I, Option 2; and

WHEREAS, Minority populations, historically, have been under-represented as new hires for employment by the State of Illinois; and

WHEREAS, There are ongoing concerns about whether the automated multiple choice exams conducted by the Department of Central Management Services, knowingly or unknowingly, could be biased against minority populations; therefore, be it

RESOLVED, BY THE HOUSE OF REPRESENTATIVES OF THE ONE HUNDREDTH GENERAL ASSEMBLY OF THE STATE OF ILLINOIS, that the Auditor General is directed in accordance with Section 3-2 of the Illinois State Auditing Act to conduct a performance audit of the Department of Central Management Services to review and assess the Department's automated multiple choice exams for the above-listed positions; and be it further

RESOLVED, That the audit include a review of whether those automated multiple choice exams are biased against minority exam takers, either in their content or in their results; and be it further

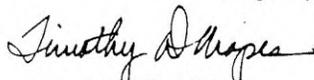
RESOLVED, That the Auditor General compile a detailed report that includes a full summary of the results of that review; and be it further

RESOLVED, That the Department of Central Management Services cooperate fully and promptly with the Auditor General in the conduct of this audit; and be it further

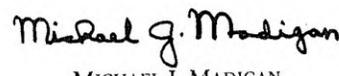
RESOLVED, That the Auditor General commence this audit as soon as possible and submit his report, including his findings and recommendations, upon completion in accordance with the provisions of Section 3-14 of the Illinois State Auditing Act, and also provide a copy of the report to the Director of Central Management Services; and be it further

RESOLVED, That a copy of this resolution be delivered to the Auditor General and the Department of Central Management Services.

Adopted by the House of Representatives on May 10, 2018.


TIMOTHY D. MAPES
CLERK OF THE HOUSE




MICHAEL J. MADIGAN
SPEAKER OF THE HOUSE

APPENDIX B

AUDIT SCOPE AND METHODOLOGY

Appendix B

AUDIT SCOPE AND METHODOLOGY

This performance audit was conducted in accordance with generally accepted government auditing standards and the audit standards promulgated by the Office of the Auditor General at 74 Ill. Adm. Code 420.310. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The objectives of the audit were identified in House Resolution Number 816 (see Appendix A), which directs the Auditor General to conduct a performance audit of the Department of Central Management Services' (CMS) automated multiple choice exams for specific position titles for bias against minorities, either in their content or in their results. The audit resolution lists 75 position titles to examine, many of which have different options. Accounting for all of the different options, there are a total of 112 tests for the 75 position titles. House Resolution Number 816 was adopted on May 10, 2018.

In conducting the audit, we reviewed applicable federal regulations, State statutes, administrative rules, and industry standards. We reviewed compliance with those laws, rules, and standards to the extent necessary to meet the audit's objectives. We reviewed policies and procedures relevant to the audit areas. We reviewed the previous compliance examination of the Department of Central Management Services released by the Office of the Auditor General. We also reviewed internal controls and assessed risk related to the audit's objectives. A risk assessment was conducted to identify areas that needed closer examination. Any significant weaknesses in those controls are included in this report.

We conducted interviews with officials from CMS' Test Development Section and Division of Examining and Counseling (both are within the Bureau of Personnel). We reviewed a systems narrative prepared by CMS' Bureau of Personnel. We also reviewed the African American, Asian American, and Hispanic Employment Plans, created by CMS' Office of Diversity and Inclusion, for reporting years 2014 through 2019; we discussed these plans and their relation to our audit objectives with the Office of Diversity and Inclusion.

We requested examination data for calendar years 2015 through 2018. To assess the reliability of the data, we reviewed the data for reasonableness including obvious inconsistency errors and completeness. We also talked with CMS officials about data quality control procedures and any issues with the data. In trying to report an unduplicated number of examinations administered, we found entries that appeared to be duplicates and other issues. When an applicant takes an exam, an entry is created for every beginning date, every expiration date, every change associated with that exam (such as a change of county or an appealed grade), and every option within a position title. For our audit purposes, this created entries that inflated

the number of true examinations taken. Therefore we removed the duplicate entries. We also found entries with unidentified codes due to typos or unknown reasons. We discussed these with CMS officials and deleted these entries when appropriate. We also removed any position titles and options that were not in the audit resolution. After removing these entries, we determined that the data was sufficiently reliable for the purposes of this report. Our final population was 226,229 examinations. Demographic information on this data is presented in Chapter Three.

We requested hire data for calendar years 2015 through 2018. To assess the reliability of the data, we reviewed the data for reasonableness, including obvious inconsistency errors and completeness. We also talked with CMS officials about data quality control procedures and any issues with the data. For example, the data did not appear to contain all hires. However, upon discussion with CMS officials, we discovered that the data contained hires in 2015 with a corresponding test in 2015. Therefore, the data did not include employees that tested in 2014 or before and were not hired until 2015. We determined that the data was sufficiently reliable for the purposes of this report. We removed entries with position titles that were not in the audit resolution. Our final population was 2,604 hirees. However, because the hire data parameters included applicants hired based on exams taken between January 1, 2015, and December 31, 2018, the population included applicants that were hired in early 2019 for exams taken in 2018. These have been removed in this report, bringing the final population to 2,585 hirees. Demographic information on this data is presented in Chapter Three.

We used the examination data to find applicants who took multiple exams for the same position titles within a 30 day period, which violates Illinois Personnel Rules. The results of this analysis are presented in Chapter Two.

We used both the examination data and the hire data to ensure that hirees had received passing grades. Our analysis showed that all hirees had a passing grade for the position title examination for which they were hired which is presented in Chapter Three.

We selected a sample of 10 (out of 75) position titles to determine if a content validity study was conducted for each. Validity studies are a comprehensive process of ensuring the knowledges, skills, and abilities tested are those most critical to job success. The sample included a mix of office and non-office position titles that had a large number of hires in 2017. We tested the validity studies provided to determine if they followed the requirements of the *Uniform Guidelines on Employee Selection Procedures (Uniform Guidelines)*. The sample was not selected using a statistically valid method utilizing confidence intervals and confidence levels; therefore, results in this audit have not been, and should not be, projected to the population. Results of this testing are presented in Chapter Two.

We selected a sample of 12 position titles that had received a test/review analysis within the last five years and represented a mix of office and non-office positions. Test item analyses are statistical analyses run after a test has been administered. We requested and tested the most recent test/item analyses for these titles. The sample was not selected using a statistically valid method utilizing confidence intervals and confidence levels; therefore, results in this audit have not been, and should not be, projected to the population. Results of this testing are presented in Chapter Two.

A draft report was sent to the Department of Central Management Services and an exit conference was held. The date of the exit conference, along with the principal attendees, are noted below:

Date: November 26, 2019

Agency

Department of Central Management Services

Name and Title

- Anthony Pascente, Chief of Staff
- Mark Mahoney, Chief Administrative Officer
- Jack Rakers, Chief Internal Auditor
- Amy Lange, Audit Liaison
- Brittany Hendricks, Personnel Audit Liaison
- Karen Siciliano, Manager, Test Development Section

Office of the Auditor General

- Tricia Wagner, Audit Manager
 - Megan Chrisler, Audit Staff
 - Adam Hulskotter, Audit Staff
-

APPENDIX C
IMPLEMENTATION AND REVIEW DATES
OF GROUP A POSITION TITLE EXAMS

Appendix C
IMPLEMENTATION AND REVIEW DATES OF GROUP A POSITION TITLE EXAMS
As of March 2019

| Position Title | Implementation Date of: | | | | Changes Made as a Result of Most Recent Test Analysis |
|---|-------------------------|---------------------|--|---------------------------|--|
| | Original Exam Form | Current Exam Form | Most Recent Changes to Test Questions ¹ | Most Recent Test Analysis | |
| Account Clerk I | 11/1/1980 | Jul. 2007 (Form N) | 7/1/2018 ² | | |
| Account Clerk II | 11/1/1980 | Jul. 2007 (Form N) | 7/1/2018 ² | | |
| Account Technician I | 11/1/1980 | Oct. 2006 (Form R) | 7/1/2018 ² | | |
| Accountant | 4/1/2004 | May 2013 (Form B) | 7/1/2014 | Apr. 2013 (Form A) | • Questions replaced, revised, deleted |
| Accountant Advanced | 4/1/2004 | May 2013 (Form B) | 7/1/2014 | Apr. 2013 (Form A) | • Questions replaced, revised, deleted |
| Accountant Supervisor | 4/1/2004 | May 2013 (Form B) | 7/1/2014 | Apr. 2013 (Form A) | • Questions replaced, revised, deleted |
| Administrative Services Worker Trainee | Unknown | Sept. 1995 (Form B) | 9/1/2010 | Oct. 1997 (Form B) | • None |
| Automotive Mechanic – Option 1 | 11/1/2014 | Nov. 2014 (Form G) | | | |
| Automotive Mechanic – Option 2 | 11/1/2014 | Nov. 2014 (Form G) | | | |
| Building/Grounds Laborer | Unknown | Jun. 2007 (Form C) | | | |
| Building/Grounds Maintenance Worker | Unknown | Jun. 2007 (Form C) | | | |
| Clerical Trainee | Unknown | Jan. 2008 (Form C) | | | |
| Corrections Food Service Supervisor I | Unknown | Dec. 2016 (Form D) | | Nov. 2016 (Form C) | • Modified cutoff scores • Questions replaced, revised, deleted |
| Data Processing Administrative Specialist | Unknown | Dec. 2007 (Form C) | 7/1/2018 ² | | |
| Data Processing Assistant – Option 1 | Unknown | Nov. 2017 (Form D) | 7/1/2018 ² | Oct. 2017 (Form C) | • Modified cutoff scores • Questions replaced, revised, deleted |
| Data Processing Assistant – Option 2 | Unknown | Jun. 2013 (Form B) | 7/1/2018 ² | May 2013 (Form A) | • Modified cutoff scores • Questions replaced, revised, deleted |
| Data Processing Specialist | Unknown | Dec. 2007 (Form C) | 7/1/2018 ² | | |

Appendix C
IMPLEMENTATION AND REVIEW DATES OF GROUP A POSITION TITLE EXAMS
As of March 2019

| Position Title | Implementation Date of: | | | Most Recent Test Analysis | Changes Made as a Result of Most Recent Test Analysis |
|---|-------------------------|--------------------|--|---------------------------|--|
| | Original Exam Form | Current Exam Form | Most Recent Changes to Test Questions ¹ | | |
| Data Processing Technician | Unknown | Dec. 2007 (Form C) | 7/1/2018 ² | | |
| Data Processing Technician Trainee | Unknown | Dec. 2007 (Form C) | 7/1/2018 ² | | |
| Dietitian | Unknown | Dec. 1993 (Form C) | | May 2017 (Form C) | <ul style="list-style-type: none"> • Questions replaced, revised, deleted |
| Disability Claims Adjudicator Trainee | 5/1/2012 | May 2012 (Form A) | | Dec. 2012 (Form A) | <ul style="list-style-type: none"> • None |
| Electronic Equipment Installer/Repairer | Unknown | Apr. 1997 (Form E) | | Sept. 2012 (Form E) | <ul style="list-style-type: none"> • Modified cutoff scores |
| Employment Security Program Representative | Unknown | Apr. 2008 (Form C) | 8/1/2018 ² | | |
| Employment Security Program Representative – Intermittent | Unknown | Apr. 2008 (Form C) | 8/1/2018 ² | | |
| Employment Security Service Representative | Unknown | Oct. 2012 (Form C) | | | |
| Executive Secretary I – Option 2 | 4/1/1989 | Mar. 2014 (Form B) | | Feb. 2014 (Form A) | <ul style="list-style-type: none"> • Modified cutoff scores • Questions replaced, revised, deleted |
| Executive Secretary I – Option 3 | 4/1/1989 | Mar. 2014 (Form B) | | Feb. 2014 (Form A) | <ul style="list-style-type: none"> • Modified cutoff scores • Questions replaced, revised, deleted |
| Executive Secretary II – Option 2 | 4/1/1989 | Mar. 2014 (Form B) | | Feb. 2014 (Form A) | <ul style="list-style-type: none"> • Modified cutoff scores • Questions replaced, revised, deleted |
| Executive Secretary II – Option 3 | 4/1/1989 | Mar. 2014 (Form B) | | Feb. 2014 (Form A) | <ul style="list-style-type: none"> • Modified cutoff scores • Questions replaced, revised, deleted |

Appendix C
IMPLEMENTATION AND REVIEW DATES OF GROUP A POSITION TITLE EXAMS
As of March 2019

| Position Title | Implementation Date of: | | | Most Recent Test Analysis | Changes Made as a Result of Most Recent Test Analysis |
|---|-------------------------|---------------------|--|---------------------------|--|
| | Original Exam Form | Current Exam Form | Most Recent Changes to Test Questions ¹ | | |
| Executive Secretary III – Option 2 | 4/1/1989 | Mar. 2014 (Form B) | | Feb. 2014 (Form A) | <ul style="list-style-type: none"> Modified cutoff scores Questions replaced, revised, deleted |
| Executive Secretary III – Option 3 | 4/1/1989 | Mar. 2014 (Form B) | | Feb. 2014 (Form A) | <ul style="list-style-type: none"> Modified cutoff scores Questions replaced, revised, deleted |
| Firearms Eligibility Analyst Trainee | 7/1/2016 | Jul. 2016 (Form A) | | | |
| Forensic Scientist Trainee – Option A | Unknown | 2001 (Form C) | | | |
| Forensic Scientist Trainee – Option B | Unknown | 2001 (Form C) | | | |
| Forensic Scientist Trainee – Option C | Unknown | 2001 (Form C) | | | |
| Guard II | Unknown | Apr. 2000 (Form B) | | Nov. 2013 (Form B) | <ul style="list-style-type: none"> None |
| Highway Maintainer | 1/1/1986 | Dec. 2016 (Form X) | | Aug. 2017 (Form X) | <ul style="list-style-type: none"> Modified cutoff scores Questions replaced, revised, deleted |
| Human Resources Assistant – Option 1 | Unknown | Dec. 2012 (Form B) | 9/1/2018 ² | Nov. 2012 (Form A) | <ul style="list-style-type: none"> Questions replaced, revised, deleted |
| Human Resources Assistant – Option 2 | Unknown | Dec. 2012 (Form B) | 9/1/2018 ² | Nov. 2012 (Form A) | <ul style="list-style-type: none"> Questions replaced, revised, deleted |
| Human Resources Associate – Option 1 | Unknown | Dec. 2012 (Form B) | 9/1/2018 ² | Nov. 2012 (Form A) | <ul style="list-style-type: none"> Questions replaced, revised, deleted |
| Human Resources Associate – Option 2 | Unknown | Dec. 2012 (Form B) | 9/1/2018 ² | Nov. 2012 (Form A) | <ul style="list-style-type: none"> Questions replaced, revised, deleted |
| Human Rights Investigator Trainee | 2/1/2016 | Feb. 2016 (Form A) | 4/1/2016 | | |
| Information Systems Analyst I – Option J | 4/1/2011 | Apr. 2011 (Form A) | | | |
| Information Systems Analyst I – Option N | 10/1/2008 | Sept. 2015 (Form C) | | | |
| Information Systems Analyst II – Option J | 4/1/2011 | Apr. 2011 (Form A) | | | |
| Information Systems Analyst II – Option N | 10/1/2008 | Sept. 2015 (Form C) | | | |

Appendix C
IMPLEMENTATION AND REVIEW DATES OF GROUP A POSITION TITLE EXAMS
As of March 2019

| Position Title | Implementation Date of: | | | | Changes Made as a Result of Most Recent Test Analysis |
|---|-------------------------|---------------------------------|--|---------------------------|--|
| | Original Exam Form | Current Exam Form | Most Recent Changes to Test Questions ¹ | Most Recent Test Analysis | |
| Information Systems Analyst III – Option J | 4/1/2011 | Apr. 2011 (Form A) | | | |
| Information Systems Analyst III – Option N | 10/1/2008 | Sept. 2015 (Form C) | | | |
| Insurance Analyst I – Option 2 | Unknown | Jul. 1999 (Form C) | 11/1/2018 ² | Jun. 1999 (Form B) | • Questions replaced, revised, deleted |
| Insurance Analyst II – Option 2 | Unknown | Jul. 1999 (Form C) | 11/1/2018 ² | Jun. 1999 (Form B) | • Questions replaced, revised, deleted |
| Insurance Performance Examiner I – Option 1 | Unknown | 1995 (rev. Sept. 2017) (Form E) | 7/1/2018 ² | Jul. 2018 (Form E) | • Modified cutoff scores • Questions replaced, revised, deleted |
| Insurance Performance Examiner I – Option 2 | Unknown | 1995 (rev. Sept. 2017) (Form E) | 7/1/2018 ² | Jul. 2018 (Form E) | • Modified cutoff scores • Questions replaced, revised, deleted |
| Intermittent Clerk – Option 1 | Unknown | May 1996 (Form A) | 11/1/2018 ² | Jun. 2001 (Form A) | • None |
| Intermittent Clerk – Option 2 | Unknown | May 1996 (Form A) | 11/1/2018 ² | Jun. 2001 (Form A) | • None |
| Intermittent Laborer (Maintenance) | 1/1/1985 | Jun. 2000 (Form B) | 11/1/2018 ² | Mar. 2018 (Form B) | • Questions replaced, revised, deleted |
| Laboratory Assistant | Unknown | May 2016 (Form C) | 11/1/2018 ² | | |
| Maintenance Equipment Operator | 1/1/1982 | Feb. 2008 (Form M) | 1/1/2014 | Jan. 2008 (Form L) | • Modified cutoff scores • Questions replaced, revised, deleted |
| Maintenance Worker | Unknown | Jul. 1996 (Form L) | 7/1/2007 | Jul. 2001 (Form L) | • None |
| Meat & Poultry Inspector Trainee | Unknown | Jun. 2003 (Form G) | 12/1/2018 ² | Jul. 2014 (Form G) | • Questions replaced, revised, deleted |
| Natural Resources Technician I | 1/1/1982 | Nov. 2002 (Form A) | 12/1/2018 ² | Nov. 2002 (Form A) | • Modified cutoff scores |
| Office Administrative Specialist – Option 4 | 4/1/1989 | Nov. 2013 (Form C) | | | |
| Office Administrator I – Option 1 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |

Appendix C
IMPLEMENTATION AND REVIEW DATES OF GROUP A POSITION TITLE EXAMS
As of March 2019

| Position Title | Implementation Date of: | | | Most Recent Test Analysis | Changes Made as a Result of Most Recent Test Analysis |
|-------------------------------------|-------------------------|---------------------------------|--|---------------------------|--|
| | Original Exam Form | Current Exam Form | Most Recent Changes to Test Questions ¹ | | |
| Office Administrator I – Option 2 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator I – Option 3 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator II – Option 1 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator II – Option 2 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator II – Option 3 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator III – Option 1 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator III – Option 2 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator III – Option 3 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator IV – Option 1 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator IV – Option 2 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator IV – Option 3 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator V – Option 1 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator V – Option 2 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Administrator V – Option 3 | 4/1/1989 | Sept. 2015 (Form B) | | Aug. 2015 (Form A) | • Questions replaced, revised, deleted |
| Office Aide | 4/1/1989 | Nov. 2018 ³ (Form H) | | Oct. 2018 (Form G) | • Modified cutoff scores • Questions replaced, revised, deleted |

Appendix C
IMPLEMENTATION AND REVIEW DATES OF GROUP A POSITION TITLE EXAMS
As of March 2019

| Position Title | Implementation Date of: | | | Most Recent Test Analysis | Changes Made as a Result of Most Recent Test Analysis |
|-------------------------------|-------------------------|---------------------------------|--|---------------------------|--|
| | Original Exam Form | Current Exam Form | Most Recent Changes to Test Questions ¹ | | |
| Office Assistant – Option 1 | 4/1/1989 | Nov. 2018 ³ (Form H) | | Oct. 2018 (Form G) | <ul style="list-style-type: none"> Modified cutoff scores Questions replaced, revised, deleted |
| Office Assistant – Option 2 | 4/1/1989 | Nov. 2018 ³ (Form H) | | Oct. 2018 (Form G) | <ul style="list-style-type: none"> Modified cutoff scores Questions replaced, revised, deleted |
| Office Assistant – Option 3 | 4/1/1989 | Nov. 2018 ³ (Form H) | | Oct. 2018 (Form G) | <ul style="list-style-type: none"> Modified cutoff scores Questions replaced, revised, deleted |
| Office Assistant – Option 5 | 4/1/1989 | Nov. 2018 ³ (Form H) | | Oct. 2018 (Form G) | <ul style="list-style-type: none"> Modified cutoff scores Questions replaced, revised, deleted |
| Office Associate – Option 1 | 4/1/1989 | Aug. 2016 (Form C) | | Jul. 2016 (Form B) | <ul style="list-style-type: none"> Questions replaced, revised, deleted |
| Office Associate – Option 2 | 4/1/1989 | Aug. 2016 (Form C) | | Jul. 2016 (Form B) | <ul style="list-style-type: none"> Questions replaced, revised, deleted |
| Office Associate – Option 3 | 4/1/1989 | Aug. 2016 (Form C) | | Jul. 2016 (Form B) | <ul style="list-style-type: none"> Questions replaced, revised, deleted |
| Office Clerk – Option 1 | 4/1/1989 | Nov. 2018 ³ (Form H) | | Oct. 2018 (Form G) | <ul style="list-style-type: none"> Modified cutoff scores Questions replaced, revised, deleted |
| Office Clerk – Option 2 | 4/1/1989 | Nov. 2018 ³ (Form H) | | Oct. 2018 (Form G) | <ul style="list-style-type: none"> Modified cutoff scores Questions replaced, revised, deleted |
| Office Clerk – Option 5 | 4/1/1989 | Nov. 2018 ³ (Form H) | | Oct. 2018 (Form G) | <ul style="list-style-type: none"> Modified cutoff scores Questions replaced, revised, deleted |
| Office Coordinator – Option 1 | 4/1/1989 | Apr. 2016 (Form B) | | Mar. 2016 (Form A) | <ul style="list-style-type: none"> Modified cutoff scores |
| Office Coordinator – Option 2 | 4/1/1989 | Apr. 2016 (Form B) | | Mar. 2016 (Form A) | <ul style="list-style-type: none"> Modified cutoff scores |
| Office Coordinator – Option 3 | 4/1/1989 | Apr. 2016 (Form B) | | Mar. 2016 (Form A) | <ul style="list-style-type: none"> Modified cutoff scores |
| Office Coordinator – Option 4 | 4/1/1989 | Nov. 2013 (Form C) | | | |
| Office Specialist – Option 1 | 4/1/1989 | Apr. 2016 (Form B) | | Mar. 2016 (Form A) | <ul style="list-style-type: none"> Modified cutoff scores |

Appendix C
IMPLEMENTATION AND REVIEW DATES OF GROUP A POSITION TITLE EXAMS
As of March 2019

| Position Title | Implementation Date of: | | | Most Recent Test Analysis | Changes Made as a Result of Most Recent Test Analysis |
|-----------------------------------|-------------------------|--------------------|--|---------------------------|---|
| | Original Exam Form | Current Exam Form | Most Recent Changes to Test Questions ¹ | | |
| Office Specialist – Option 2 | 4/1/1989 | Apr. 2016 (Form B) | | Mar. 2016 (Form A) | • Modified cutoff scores |
| Office Specialist – Option 3 | 4/1/1989 | Apr. 2016 (Form B) | | Mar. 2016 (Form A) | • Modified cutoff scores |
| Office Specialist – Option 4 | 4/1/1989 | Nov. 2013 (Form C) | | | |
| Pharmacy Technician | Unknown | Oct. 2011 (Form A) | 12/1/2018 ² | | |
| Public Aid Eligibility Assistant | Unknown | Jan. 2017 (Form F) | 10/1/2018 ² | Dec. 2016 (Form E) | • Questions replaced, revised, deleted |
| Rehabilitation Case Coordinator I | 1/1/1994 | Nov. 2007 (Form D) | 10/1/2018 ² | | |
| Residential Care Worker Trainee | 12/1/2002 | Aug. 2003 (Form D) | 11/1/2007 | Dec. 2003 (Form D) | • Modified cutoff scores |
| Revenue Tax Specialist Trainee | Unknown | Jan. 2014 (Form B) | | | |
| Security Therapy Aide Trainee | Unknown | Aug. 2007 (Form B) | 12/1/2018 ² | | |
| Site Security Officer | Unknown | Mar. 2019 (Form C) | | Feb. 2019 (Form B) | • Questions replaced, revised, deleted • Changes to knowledges, skills, and abilities tested |
| Site Technician II | Unknown | Apr. 2018 (Form E) | | Mar. 2018 (Form D) | • Modified cutoff scores • Questions replaced, revised, deleted |
| Social Services Career Trainee | 3/1/2015 | Mar. 2017 (Form B) | | Feb. 2017 (Form A) | • Modified cutoff scores • Total number of questions reduced |
| Stores Clerk | Unknown | 1996 (Form K) | | Nov. 2018 (Form K) | • Modified cutoff scores • Questions replaced, revised, deleted |
| Support Service Worker | 6/1/1999 | 2012 (Form E) | | | |

Appendix C
IMPLEMENTATION AND REVIEW DATES OF GROUP A POSITION TITLE EXAMS
As of March 2019

| Position Title | Implementation Date of: | | | Most Recent Test Analysis | Changes Made as a Result of Most Recent Test Analysis |
|---|-------------------------|--------------------|--|---------------------------|--|
| | Original Exam Form | Current Exam Form | Most Recent Changes to Test Questions ¹ | | |
| Switchboard Operator I | Unknown | Apr. 2002 (Form J) | 9/1/2014 | | |
| Telecommunicator Trainee | Unknown | Jun. 2016 (Form F) | | May 2016 (Form E) | <ul style="list-style-type: none"> • Modified cutoff scores • Questions replaced, revised, deleted |
| Unemployment Insurance Revenue Analyst I | Unknown | Feb. 2019 (Form B) | | Jan. 2019 (Form A) | <ul style="list-style-type: none"> • Modified cutoff scores • Questions replaced, revised, deleted |
| Unemployment Insurance Revenue Analyst II | Unknown | Feb. 2019 (Form B) | | Jan. 2019 (Form A) | <ul style="list-style-type: none"> • Modified cutoff scores • Questions replaced, revised, deleted |
| Unemployment Insurance Revenue Specialist | Unknown | Feb. 2019 (Form B) | | Jan. 2019 (Form A) | <ul style="list-style-type: none"> • Modified cutoff scores • Questions replaced, revised, deleted |
| Veterans Employment Representative I | Unknown | Dec. 1998 (Form F) | | May 2007 (Form F) | <ul style="list-style-type: none"> • None |

Notes:

¹ Does not necessarily indicate a test analysis was performed.

² Includes replacing math/numeric reasoning questions as a result of allowing calculators in test centers.

³ Implementation of the new form is on hold pending CMS legal counsel approval.

Source: CMS documentation.

APPENDIX D
PASS RATES BY POSITION TITLE AND
ETHNICITY CATEGORY
Calendar Years 2015-2018

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|--|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Account Clerk I (1,036 applicants) | | | | | | | |
| Pass Rates (%) | 99.3 | 97.9 | 91.3 | 98.0 | 100.0 | - | 93.1 |
| Account Clerk II (1,449 applicants) | | | | | | | |
| Pass Rates (%) | 96.6 | 90.6 | 83.3 | 92.0 | 100.0 | - | 81.4 |
| Account Technician I (2,127 applicants) | | | | | | | |
| Pass Rates (%) | 82.9 | 66.8 | 67.0 | 85.1 | 55.6 | - | 71.1 |
| Accountant (807 applicants) | | | | | | | |
| Pass Rates (%) | 83.4 | 67.2 | 71.4 | 76.4 | 100.0 | - | 82.7 |
| Accountant Advanced (721 applicants) | | | | | | | |
| Pass Rates (%) | 79.6 | 61.6 | 62.5 | 71.4 | 100.0 | - | 75.7 |
| Accountant Supervisor (710 applicants) | | | | | | | |
| Pass Rates (%) | 74.3 | 55.0 | 54.5 | 68.3 | 100.0 | - | 73.5 |
| Administrative Services Worker Trainee (212 applicants) | | | | | | | |
| Pass Rates (%) | 99.3 | 91.7 | 100.0 | - | 100.0 | - | 95.2 |
| Automotive Mechanic – Option 1 (239 applicants) | | | | | | | |
| Pass Rates (%) | 95.6 | 75.0 | 85.7 | - | - | - | 96.3 |
| Automotive Mechanic – Option 2 (240 applicants) | | | | | | | |
| Pass Rates (%) | 95.3 | 57.1 | 83.3 | 100.0 | - | - | 96.3 |
| Building/Grounds Laborer (2,633 applicants) | | | | | | | |
| Pass Rates (%) | 99.2 | 92.2 | 90.5 | 100.0 | 94.7 | - | 95.5 |
| Building/Grounds Maintenance Worker (1,721 applicants) | | | | | | | |
| Pass Rates (%) | 95.6 | 50.5 | 72.6 | 66.7 | 100.0 | - | 87.2 |

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|---|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Clerical Trainee (307 applicants) | | | | | | | |
| Pass Rates (%) | 100.0 | 90.4 | 92.3 | 91.7 | - | - | 87.5 |
| Corrections Food Service Supervisor I (414 applicants) | | | | | | | |
| Pass Rates (%) | 82.8 | 80.5 | 71.4 | - | 66.7 | - | 69.1 |
| Data Processing Administrative Specialist (268 applicants) | | | | | | | |
| Pass Rates (%) | 94.3 | 76.6 | 75.0 | 100.0 | 100.0 | - | 75.7 |
| Data Processing Assistant – Option 1 (318 applicants) | | | | | | | |
| Pass Rates (%) | 91.6 | 69.1 | 53.3 | 87.5 | - | - | 81.0 |
| Data Processing Assistant – Option 2 (363 applicants) | | | | | | | |
| Pass Rates (%) | 61.9 | 31.3 | 73.3 | 68.4 | - | - | 35.0 |
| Data Processing Specialist (265 applicants) | | | | | | | |
| Pass Rates (%) | 97.9 | 89.1 | 100.0 | 100.0 | 100.0 | - | 83.3 |
| Data Processing Technician (365 applicants) | | | | | | | |
| Pass Rates (%) | 90.6 | 67.3 | 71.4 | 92.6 | - | - | 76.7 |
| Data Processing Technician Trainee (345 applicants) | | | | | | | |
| Pass Rates (%) | 97.8 | 77.0 | 84.6 | 91.3 | 100.0 | - | 86.4 |
| Dietitian (23 applicants) | | | | | | | |
| Pass Rates (%) | 100.0 | 100.0 | - | - | - | - | 100.0 |
| Disability Claims Adjudicator Trainee (552 applicants) | | | | | | | |
| Pass Rates (%) | 92.0 | 92.0 | 73.7 | 83.3 | 66.7 | - | 83.7 |
| Electronic Equipment Installer/Repairer (128 applicants) | | | | | | | |
| Pass Rates (%) | 73.7 | 53.8 | 16.7 | 100.0 | - | - | 60.0 |

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|---|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Employment Security Program Representative (2,677 applicants) | | | | | | | |
| Pass Rates (%) | 94.2 | 90.7 | 89.1 | 90.5 | 100.0 | 100.0 | 82.4 |
| Employment Security Program Representative – Intermittent (2,466 applicants) | | | | | | | |
| Pass Rates (%) | 94.2 | 91.0 | 89.7 | 90.4 | 100.0 | - | 83.1 |
| Employment Security Service Representative (733 applicants) | | | | | | | |
| Pass Rates (%) | 93.7 | 93.2 | 92.5 | 91.7 | 33.3 | - | 86.5 |
| Executive Secretary I – Option 2 (1,360 applicants) | | | | | | | |
| Pass Rates (%) | 53.5 | 36.4 | 40.5 | 53.8 | 75.0 | - | 38.0 |
| Executive Secretary I – Option 3 (26 applicants) | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Executive Secretary II – Option 2 (1,338 applicants) | | | | | | | |
| Pass Rates (%) | 53.5 | 37.5 | 35.1 | 53.8 | 75.0 | - | 39.0 |
| Executive Secretary II – Option 3 (25 applicants) | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Executive Secretary III – Option 2 (1,344 applicants) | | | | | | | |
| Pass Rates (%) | 52.7 | 35.9 | 32.4 | 53.8 | 75.0 | - | 38.7 |
| Executive Secretary III – Option 3 (26 applicants) | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Firearms Eligibility Analyst Trainee (523 applicants) | | | | | | | |
| Pass Rates (%) | 98.0 | 98.2 | 100.0 | 100.0 | 100.0 | - | 95.7 |
| Forensic Scientist Trainee – Option A (490 applicants) | | | | | | | |
| Pass Rates (%) | 93.7 | 92.6 | 93.2 | 90.6 | - | - | 95.1 |

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|--|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Forensic Scientist Trainee – Option B (339 applicants) | | | | | | | |
| Pass Rates (%) | 96.6 | 92.3 | 93.8 | 75.0 | - | - | 91.1 |
| Forensic Scientist Trainee – Option C (234 applicants) | | | | | | | |
| Pass Rates (%) | 93.7 | 92.0 | 95.2 | 92.3 | - | - | 87.5 |
| Guard II (1,012 applicants) | | | | | | | |
| Pass Rates (%) | 98.2 | 97.1 | 94.3 | 100.0 | 100.0 | - | 94.8 |
| Highway Maintainer (4,054 applicants) | | | | | | | |
| Pass Rates (%) | 99.6 | 93.9 | 95.1 | 100.0 | 100.0 | 100.0 | 98.1 |
| Human Resources Assistant – Option 1 (2,979 applicants) | | | | | | | |
| Pass Rates (%) | 91.4 | 71.7 | 75.4 | 76.9 | 100.0 | - | 76.6 |
| Human Resources Assistant – Option 2 (2,767 applicants) | | | | | | | |
| Pass Rates (%) | 82.0 | 57.7 | 62.6 | 69.2 | 100.0 | - | 65.7 |
| Human Resources Associate – Option 1 (2,983 applicants) | | | | | | | |
| Pass Rates (%) | 86.0 | 59.5 | 62.9 | 70.2 | 83.3 | - | 68.5 |
| Human Resources Associate – Option 2 (2,776 applicants) | | | | | | | |
| Pass Rates (%) | 78.6 | 49.7 | 54.7 | 63.8 | 83.3 | - | 59.8 |
| Human Rights Investigator Trainee (1,676 applicants) | | | | | | | |
| Pass Rates (%) | 98.5 | 94.9 | 97.0 | 100.0 | 100.0 | - | 94.8 |
| Information Systems Analyst I – Option J (38 applicants) | | | | | | | |
| Pass Rates (%) | 28.6 | 10.0 | 50.0 | 40.0 | - | - | 28.6 |
| Information Systems Analyst I – Option N (110 applicants) | | | | | | | |
| Pass Rates (%) | 89.1 | 71.9 | 70.0 | 66.7 | - | - | 87.5 |

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|--|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Information Systems Analyst II – Option J (12 applicants) | | | | | | | |
| Pass Rates (%) | 50.0 | - | - | - | - | - | 25.0 |
| Information Systems Analyst II – Option N (68 applicants) | | | | | | | |
| Pass Rates (%) | 77.8 | 46.2 | 85.7 | 66.7 | - | - | 55.6 |
| Information Systems Analyst III – Option J³ | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | 25.0 |
| Information Systems Analyst III – Option N (47 applicants) | | | | | | | |
| Pass Rates (%) | 63.6 | 14.3 | 66.7 | 50.0 | - | - | 60.0 |
| Insurance Analyst I – Option 2 (97 applicants) | | | | | | | |
| Pass Rates (%) | 70.8 | 37.5 | 100.0 | 42.9 | - | - | 66.7 |
| Insurance Analyst II – Option 2 (96 applicants) | | | | | | | |
| Pass Rates (%) | 66.7 | 20.0 | 100.0 | 25.0 | - | - | 53.1 |
| Insurance Performance Examiner I – Option 1 (73 applicants) | | | | | | | |
| Pass Rates (%) | 80.0 | 50.0 | - | - | 100.0 | - | 73.7 |
| Insurance Performance Examiner I – Option 2 (41 applicants) | | | | | | | |
| Pass Rates (%) | 88.0 | 66.7 | 100.0 | 75.0 | - | - | 60.0 |
| Intermittent Clerk – Option 1 (126 applicants) | | | | | | | |
| Pass Rates (%) | 98.0 | 93.5 | 90.9 | 66.7 | - | - | 81.3 |
| Intermittent Clerk – Option 2 (70 applicants) | | | | | | | |
| Pass Rates (%) | 89.4 | 38.5 | 100.0 | - | - | - | 60.0 |
| Intermittent Laborer (Maintenance) (124 applicants) | | | | | | | |
| Pass Rates (%) | 95.1 | 76.9 | 100.0 | - | 100.0 | - | 83.3 |

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|---|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Laboratory Assistant (405 applicants) | | | | | | | |
| Pass Rates (%) | 99.7 | 100.0 | 90.9 | 100.0 | 100.0 | - | 100.0 |
| Maintenance Equipment Operator (1,028 applicants) | | | | | | | |
| Pass Rates (%) | 99.5 | 97.1 | 92.9 | 100.0 | 100.0 | - | 96.5 |
| Maintenance Worker (1,080 applicants) | | | | | | | |
| Pass Rates (%) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | - | 97.9 |
| Meat & Poultry Inspector Trainee (707 applicants) | | | | | | | |
| Pass Rates (%) | 99.4 | 92.3 | 89.1 | 100.0 | 80.0 | - | 90.2 |
| Natural Resources Technician I (217 applicants) | | | | | | | |
| Pass Rates (%) | 100.0 | 100.0 | 100.0 | 100.0 | - | - | 100.0 |
| Office Administrative Specialist – Option 4 (504 applicants) | | | | | | | |
| Pass Rates (%) | 97.4 | 91.5 | 96.9 | 90.5 | - | - | 98.0 |
| Office Administrator I – Option 1 (1,527 applicants) | | | | | | | |
| Pass Rates (%) | 99.1 | 99.0 | 100.0 | 95.5 | 100.0 | - | 96.7 |
| Office Administrator I – Option 2 (1,376 applicants) | | | | | | | |
| Pass Rates (%) | 90.1 | 77.2 | 81.3 | 80.0 | 100.0 | - | 73.6 |
| Office Administrator I – Option 3³ | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Office Administrator II – Option 1 (2,042 applicants) | | | | | | | |
| Pass Rates (%) | 99.2 | 98.7 | 100.0 | 93.9 | 100.0 | - | 95.1 |
| Office Administrator II – Option 2 (1,875 applicants) | | | | | | | |
| Pass Rates (%) | 89.8 | 76.9 | 81.3 | 81.1 | 100.0 | - | 72.8 |

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|---|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Office Administrator II – Option 3³ | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Office Administrator III – Option 1 (2,078 applicants) | | | | | | | |
| Pass Rates (%) | 99.0 | 96.5 | 98.3 | 90.0 | 100.0 | - | 93.4 |
| Office Administrator III – Option 2 (1,901 applicants) | | | | | | | |
| Pass Rates (%) | 89.6 | 76.3 | 79.9 | 81.1 | 100.0 | - | 71.8 |
| Office Administrator III – Option 3³ | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Office Administrator IV – Option 1 (2,089 applicants) | | | | | | | |
| Pass Rates (%) | 98.3 | 94.4 | 97.1 | 87.0 | 100.0 | - | 89.7 |
| Office Administrator IV – Option 2 (1,908 applicants) | | | | | | | |
| Pass Rates (%) | 89.2 | 76.1 | 79.9 | 82.1 | 100.0 | - | 70.5 |
| Office Administrator IV – Option 3³ | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Office Administrator V – Option 1 (2,078 applicants) | | | | | | | |
| Pass Rates (%) | 97.6 | 91.0 | 93.1 | 85.2 | 100.0 | - | 83.9 |
| Office Administrator V – Option 2 (1,897 applicants) | | | | | | | |
| Pass Rates (%) | 88.6 | 74.4 | 77.3 | 79.5 | 100.0 | - | 66.8 |
| Office Administrator V – Option 3³ | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Office Aide (14,370 applicants) | | | | | | | |
| Pass Rates (%) | 97.9 | 90.5 | 90.3 | 89.4 | 91.5 | - | 84.7 |

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|---|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Office Assistant – Option 1 (18,239 applicants) | | | | | | | |
| Pass Rates (%) | 95.8 | 84.1 | 82.7 | 86.2 | 90.3 | - | 79.2 |
| Office Assistant – Option 2 (16,266 applicants) | | | | | | | |
| Pass Rates (%) | 64.5 | 36.0 | 40.7 | 57.3 | 38.5 | - | 43.9 |
| Office Assistant – Option 3 (17 applicants) | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | 100.0 |
| Office Assistant – Option 5 (530 applicants) | | | | | | | |
| Pass Rates (%) | 99.2 | 94.3 | 90.9 | 85.7 | 100.0 | - | 87.3 |
| Office Associate – Option 1 (10,037 applicants) | | | | | | | |
| Pass Rates (%) | 95.1 | 82.6 | 82.0 | 91.5 | 65.7 | - | 82.0 |
| Office Associate – Option 2 (9,268 applicants) | | | | | | | |
| Pass Rates (%) | 55.4 | 28.9 | 31.7 | 53.7 | 37.5 | - | 42.1 |
| Office Associate – Option 3³ | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Office Clerk – Option 1 (17,517 applicants) | | | | | | | |
| Pass Rates (%) | 97.2 | 87.7 | 87.3 | 89.9 | 91.7 | - | 82.2 |
| Office Clerk – Option 2 (15,604 applicants) | | | | | | | |
| Pass Rates (%) | 75.2 | 50.2 | 54.5 | 66.2 | 50.8 | - | 54.4 |
| Office Clerk – Option 5 (516 applicants) | | | | | | | |
| Pass Rates (%) | 99.2 | 97.8 | 97.7 | 85.7 | 100.0 | - | 91.8 |
| Office Coordinator – Option 1 (6,210 applicants) | | | | | | | |
| Pass Rates (%) | 99.9 | 99.2 | 99.4 | 99.2 | 100.0 | - | 99.5 |

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|---|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Office Coordinator – Option 2 (5,859 applicants) | | | | | | | |
| Pass Rates (%) | 86.6 | 67.2 | 68.0 | 76.5 | 77.8 | - | 73.5 |
| Office Coordinator – Option 3³ | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Office Coordinator – Option 4 (477 applicants) | | | | | | | |
| Pass Rates (%) | 99.2 | 97.7 | 100.0 | 100.0 | - | - | 100.0 |
| Office Specialist – Option 1 (6,033 applicants) | | | | | | | |
| Pass Rates (%) | 99.7 | 98.3 | 98.9 | 98.4 | 100.0 | - | 99.3 |
| Office Specialist – Option 2 (5,648 applicants) | | | | | | | |
| Pass Rates (%) | 86.4 | 67.8 | 68.0 | 76.6 | 75.0 | - | 71.8 |
| Office Specialist – Option 3³ | | | | | | | |
| Pass Rates (%) | - | - | - | - | - | - | - |
| Office Specialist – Option 4 (483 applicants) | | | | | | | |
| Pass Rates (%) | 98.8 | 96.2 | 96.8 | 100.0 | - | - | 98.1 |
| Pharmacy Technician (181 applicants) | | | | | | | |
| Pass Rates (%) | 90.6 | 97.0 | 100.0 | 100.0 | - | - | 80.6 |
| Public Aid Eligibility Assistant (6,119 applicants) | | | | | | | |
| Pass Rates (%) | 97.6 | 90.8 | 85.9 | 85.8 | 94.7 | - | 87.2 |
| Rehabilitation Case Coordinator I (2,419 applicants) | | | | | | | |
| Pass Rates (%) | 86.2 | 69.1 | 67.8 | 81.8 | 66.7 | - | 68.5 |
| Residential Care Worker Trainee (454 applicants) | | | | | | | |
| Pass Rates (%) | 97.8 | 99.5 | 96.0 | 100.0 | 100.0 | - | 100.0 |

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|---|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Revenue Tax Specialist Trainee (1,592 applicants) | | | | | | | |
| Pass Rates (%) | 93.4 | 80.4 | 91.6 | 79.0 | 66.7 | - | 84.9 |
| Security Therapy Aide Trainee (2,774 applicants) | | | | | | | |
| Pass Rates (%) | 98.2 | 94.9 | 94.9 | 94.5 | 100.0 | - | 86.9 |
| Site Security Officer (550 applicants) | | | | | | | |
| Pass Rates (%) | 100.0 | 100.0 | 94.9 | 84.6 | 100.0 | - | 89.9 |
| Site Technician II (1,489 applicants) | | | | | | | |
| Pass Rates (%) | 99.3 | 89.2 | 100.0 | 100.0 | 100.0 | - | 98.6 |
| Social Services Career Trainee (6,759 applicants) | | | | | | | |
| Pass Rates (%) | 89.7 | 70.4 | 70.0 | 73.1 | 83.3 | 100.0 | 69.5 |
| Stores Clerk (934 applicants) | | | | | | | |
| Pass Rates (%) | 99.2 | 100.0 | 100.0 | 97.1 | 100.0 | - | 96.9 |
| Support Service Worker (4,355 applicants) | | | | | | | |
| Pass Rates (%) | 99.9 | 99.3 | 98.5 | 96.4 | 100.0 | - | 96.8 |
| Switchboard Operator I (568 applicants) | | | | | | | |
| Pass Rates (%) | 98.2 | 92.1 | 92.4 | 100.0 | 100.0 | - | 87.8 |
| Telecommunicator Trainee (942 applicants) | | | | | | | |
| Pass Rates (%) | 53.9 | 28.4 | 42.1 | 50.0 | 50.0 | - | 36.6 |
| Unemployment Insurance Revenue Analyst I (321 applicants) | | | | | | | |
| Pass Rates (%) | 79.8 | 48.1 | 58.6 | 85.0 | - | - | 48.1 |
| Unemployment Insurance Revenue Analyst II (215 applicants) | | | | | | | |
| Pass Rates (%) | 83.6 | 49.4 | 57.9 | 93.3 | - | - | 42.4 |

**Appendix D
PASS RATES
by Position Title and Ethnicity Category for Calendar Years 2015-2018^{1,2}**

| Title | Ethnicity Category | | | | | | |
|---|--------------------|---------------------------|--------------------|-------|----------------------------------|-------------------------------------|-------------|
| | White | Black or African American | Hispanic or Latino | Asian | American Indian or Alaska Native | Native Hawaiian or Pacific Islander | No Response |
| Unemployment Insurance Revenue Specialist (482 applicants) | | | | | | | |
| Pass Rates (%) | 94.9 | 87.2 | 92.2 | 91.2 | 100.0 | - | 89.4 |
| Veterans Employment Representative I – Option 2 (280 applicants) | | | | | | | |
| Pass Rates (%) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | - | 100.0 |
| TOTAL (226,229 applicants) | | | | | | | |
| Pass Rates (%) | 87.6 | 76.8 | 77.1 | 82.4 | 81.0 | 60.0 | 76.6 |

Notes:

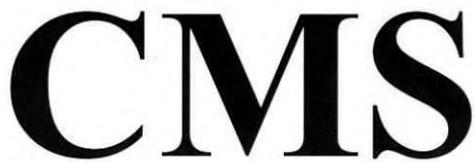
¹ Data represents tests taken and hires for the 75 position titles in the audit resolution. Includes duplicate individuals who took multiple position title exams and/or took an exam more than one time.

² Dashes represent a passing rate of less than 10% or that there were no applicants who took the exam.

³ Due to the small number of applicants, for privacy, the number of applicants is not provided.

Source: OAG analysis of CMS Calendar Year 2015 to 2018 applicant data.

APPENDIX E
AGENCY RESPONSES



ILLINOIS

JB Pritzker, Governor

DEPARTMENT OF CENTRAL MANAGEMENT SERVICES

Janel L. Forde, Acting Director

Bureau of Internal Audit
Jack Rakers, Chief Internal Auditor
320 W. Washington, 1st Floor, Springfield, IL 62701

December 4, 2019

Tricia Wagner, Performance Audit Manager
Office of the Auditor General
Iles Park Plaza
740 East Ash
Springfield, Illinois 62703

Dear Ms. Wagner

Attached are the responses to the confidential recommendations pertaining to the Department of Central Management Services resulting from the performance audit of House Resolution Number 816 conducted by your office pursuant.

Please do not hesitate to contact me at (217) 524-0828 or email me at Jack.Rakers@illinois.gov if you have any questions or concerns.

Yours truly,

SIGNED ORIGINAL ON FILE

Jack Rakers
Chief Internal Auditor

Attachment

RESPONSES TO HOUSE RESOLUTION NUMBER 816

RECOMMENDATION #1

The Department of Central Management Services should ensure a system is in place to track when a validity study was conducted for each title and retain appropriate documentation to confirm that each exam has been properly validated.

RESPONSE #1

We agree. There were some validity studies for titles with missing dates when our system was created in the early 1990's. This information was not captured in the current system as these validity studies predated its creation. We will continue to keep all of our records up to date as changes occur.

RECOMMENDATION #2

The Department of Central Management Services Test Development Section should draft policies and procedures to clarify steps for employees when:

- Developing new examinations;
- Conducting validity studies; and
- Conducting test analyses.

RESPONSE #2

We agree. Due to the employees being in the unit for a long period of time, they did not have their policies readily available. However, the Department will review the policies, make changes if required, and continue to make updates as the operations of the section change.

RECOMMENDATION #3

The Department of Central Management Services Division of Examining and Counseling should create a policy to ensure that any survey responses related to exam content are provided to the Test Development Section.

RESPONSE #3

We agree. Due to the few instances of comments involving test questions, the Department did not send the survey responses to the Test Development section. We will do so in the future if they pertain to test questions.

RECOMMENDATION #4

The Department of Central Management Services should document all instances in which an applicant is allowed to retake tests for the same position title inside of the 30-day restriction and the reason for the

retest. In these instances, when necessary, the Department should seek waivers from the Director to maintain compliance with Illinois Personnel Rules.

RESPONSE #4

The Department acknowledges that there were a few applicants, that were able to retake a test within 30 days. We will send out a reminder to all testing centers reminding them of the importance of documenting the reason for retesting and seeking a waiver, when required.

