State Personnel Board
Merit Operations Divison

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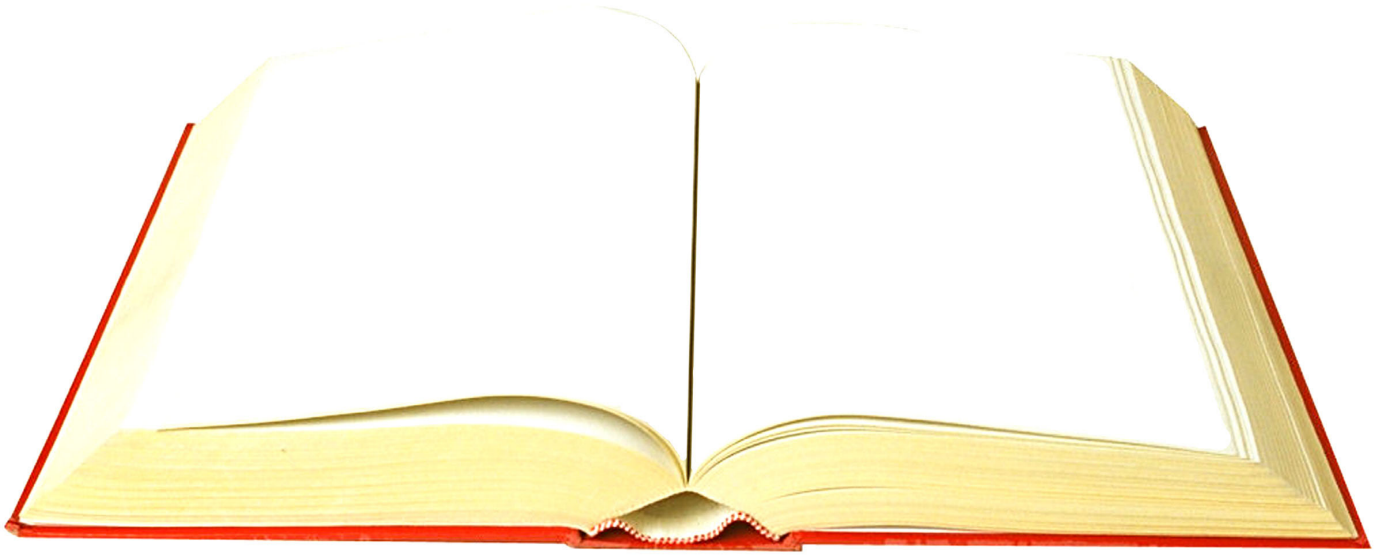
Staff Services Analyst
Written Transfer Examination
Study Guide & Sample Test Questions



WELCOME
Thank you for your interest in the Staff Services Analyst (SSA) classification. This guide is designed to familiarize and assist you with preparing for the SSA transfer exam. The test contains 75 multiple-choice items in three content sections: 1) Quantitative Analysis, 2) Data Analysis and Interpretation, and 3) Workload Management / Project Management. The sample questions provided in this guide are intended to give you an idea of the kinds of questions you will encounter in the written test. However, it is important to note that actual test questions may vary in format and content.

HOW SHOULD I PREPARE FOR THE WRITTEN TEST?
To prepare for the Staff Services Analyst (SSA) written transfer exam, you should study contents assessed in each section of the test. You will be provided a calculator for this test.

On the test day, it is strongly recommended that you arrive 15 minutes prior to the test's starting time, and make sure you are well rested. Also, remember to bring your test notice and a picture ID, or you may not be admitted into the test.

TEST-TAKING TIPS
The SSA transfer exam has a 3 hour time limit, so it is important that you work quickly, but not so fast as to become careless. Always read all the possible choices before selecting your answer. If you do not know the answer to a problem, it is usually best to skip it and move on to the others. Your score will be based on the number of correct responses. In you are unsure of the answer to a problem, eliminate the answers you believe are wrong, and mark the choice that is your best response. Above all, budget your time, pace yourself, and avoid getting bogged down on any single question.

TEST CONTENT
Quantitative Analysis - This section of the test measures your skills in the area of algebra, geometry, and statistical problem solving.

Data Analysis and Interpretation – This section of the test is designed to assess your skill in reading, interpreting, and applying written information. You will be asked to interpret and apply data and information contained in a variety of written materials, including written passages, tables, charts and graphs.

Workload Management / Project Management – This section of the test is designed to assess your ability to effectively handle a variety of situations related to the planning, and organizing of projects and work assignments which you will encounter as an SSA.

ANSWER SHEET
You may find answers to the sample questions beginning on page 9.

SAMPLE QUANTITATIVE ANALYSIS QUESTIONS

Quantitative analysis includes questions in the areas of algebra, geometry, and statistical problem solving in a variety of problem formats and situations. You will be provided a calculator for this test. The following are samples of the types of problems you may find in the SSA examination. However, actual problems will vary in format and content.

Tips to remember in solving mathematical problems:

- **Read the problem entirely** to get a feel for the whole problem
- **List information and variables you identify**
  - Attach unit of measurement to the variables (gallons, miles, inches, etc)
- **Define what answer you need**, as well as the unit of measurement
- **Work in an organized manner** to help you think clearly
  - Draw and label all graphs and pictures clearly
  - Note or explain each step of your process; this will help you track variables and remember their meanings
- **Look for the "key" words** in the question that indicate a certain mathematical operations.

Instructions: Read the information provided and perform the calculations necessary to determine the correct answer.

- Algebra is a branch of mathematics concerning the study of structure, relation, and quantity.

1. Quick Call charges 18¢ per minute for long-distance calls. Econo Phone totals your phone usage each month and rounds the number of minutes up to the nearest 15 minutes. It then charges $7.90 per hour of phone usage, dividing this charge into 15-minute segments if you used less than a full hour. If your office makes 5 hours 3 minutes worth of calls this month using the company with lower price, how much will these calls cost?

   a. $39.50
   b. $41.48
   c. $41.87
   d. $54.54

- Geometry is a part of mathematics with questions of size, shape, relative position of figures, and with properties of space.

2. The total length of fencing needed to enclose a rectangular area 46 feet by 34 feet is

   a. 26 yards 1 foot
   b. 26 2/3 yard
   c. 52 yards 2 feet
   d. 53 1/3 yards

Statistics is a mathematical science pertaining to the collection, analysis, interpretation or explanation, and presentation of data.

3. The clerk who worked in Department A earned the following salaries: $15,105 the first year, $15,750 the second year and $16,440 the third year. Another clerk who worked in Department B for three years earned $15,825 a year for 2 years and $16,086 the third year. The DIFFERENCE between the average salaries received by both clerks over a three-year period is

   a. $147
   b. $153
   c. $261
   d. $423

SAMPLE DATA ANALYSIS AND INTERPRETATION QUESTIONS

This section of the test is designed to assess your skill in reading, interpreting, and applying written information. You will be asked to interpret and apply data and information contained in a variety of written materials, including written passages, tables, charts and graphs. The following are samples of the types of problems you may find in the SSA examination. However, actual problems will vary in format and content.

Instructions: Use the following table to answer questions 4 and 5:

- Tables are used to represent relationships between data.

COST FOR CUSTOMER SERVICE TRAINING BY REGION

Region	# of Employees	Salary (cost per employee)	Training Materials (cost per employee)	Training Facility (flat cost)	Trainer's Fee (flat cost)	TOTAL COST
Northeast	37	$27.00	$9.75	$925.00	$550.00	
Southeast	53	$24.75	$9.75	$425.00	$550.00	
Central	55	$24.00	$9.75	$450.00	$550.00	
Northwest	40	$25.50	$9.75	$875.00	$550.00	
Southwest	42	$26.25	$9.75	$850.00	$550.00	

4. If five employees resigned from the Southwest Region, how much would its new total cost for the Customer Service Training be?

   a. $2,631.00
   b. $2,674.00
   c. $2,713.00
   d. $2,732.00

5. If the training facility cost increased by 25% for the Southeast and Northwest Regions, which of the following regions would cost the MOST to conduct the Customer Service Training?

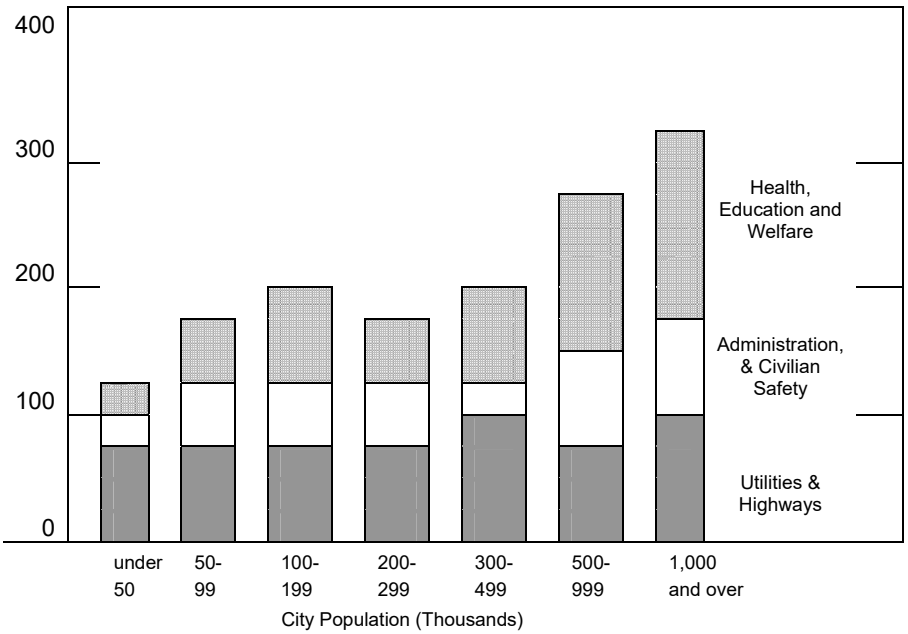
   a. Northeast
   b. Southeast
   c. Northwest
   d. Southwest

Instructions: Use the following graph to answer question 6:

- Graphs illustrate comparisons and trends in statistical information. The most commonly used graphs are bar graphs, line graphs, and circle graphs.

- Bar Graphs are used to compare various quantities. Each bar may represent a single quantity or may be divided to represent several quantities.

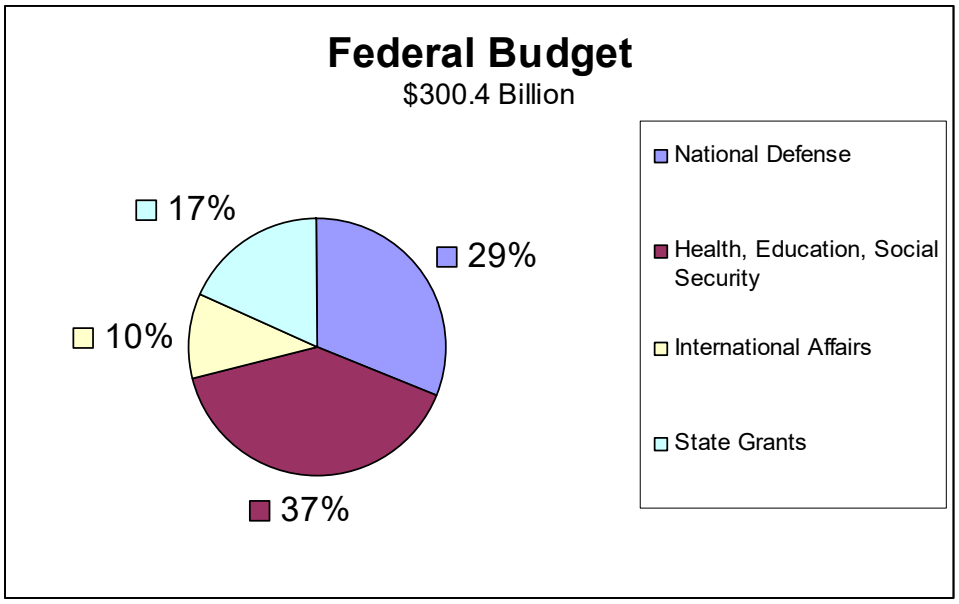
Municipal Expenditures, Per Capita



6. Using the chart above, what is the approximate municipal expenditure per capita in cities having populations of 200,000 to 299,000?
   a. $ 125
   b. $ 175
   c. $ 200
   d. $ 300

Instructions: Use the following graph to answer question 7:

- Circle Graphs are used to show the relationship of various parts of a quantity to each other and to the whole quantity. Percents are often used in circle graphs with the 360 degree circle representing 100%. Each part of the circle graph is called a sector.



7. The circle graph above shows the federal budget of $300.4 billion. Based on this information, what portion of the budget was **not** spent?
   a. 5%
   b. 7%
   c. 10%
   d. 12%

Instructions: Read the information provided in the following passage and answer the question that follows.

8. From time to time the State makes surplus property available for sale to the public. This property consists of State property; unclaimed or abandoned personal property and valuables, except those confiscated in conjunction with drug enforcement activities; and unclaimed stolen property. The surplus property is disposed of through sale bids, auctions and donations.

   According to the passage,

   a. the State's personal property brings in the largest sales.
   b. items that are not claimed by their owner will be sold to the public.
   c. the State holds regularly scheduled sales of property to the public.
   d. property obtained by drug enforcement activities is sold through the bid process.

WORKLOAD MANAGEMENT/PROJECT MANAGEMENT SCENARIO

This section of the test is designed to assess your ability to effectively handle a variety of situations related to the planning and organizing of projects and work assignments which you will encounter as an SSA.

Instructions: Read the information provided in the passage and answer the question that follows.

9. The State Personnel Board (SPB) has issued a new policy requiring all candidates who transfer into the Staff Services Analyst classification to pass a written transfer exam. You have been asked to coordinate the testing in your department. What action should you take first?

    a. read the SPB guidelines outlined in the policy
    b. schedule the training rooms and staff for testing
    c. organize a workgroup to assist with testing arrangements
    d. prepare a bulletin announcing testing

Answer Sheet

1. The correct answer is B. The operation is to determine the company with the lower price then calculate the total cost for the month.

   Facts

   Econo Phone = $7.90 per hour (Minutes are rounded to the nearest 15 minutes increment)

   Quick Call = $0.18 per minute

   Calculations

   Quick Call

   Step 1: Convert 5 hours and 3 minutes to total minutes.
   The formula is: **number of hours(minutes in an hour)+extra minutes**
   5(60) + 3 = 303

   Step 2: Determine the monthly cost.
   The formula is: **total minutes(per minute charge)**
   .18(303) = $54.54

   Econo Phone

   Step 1: Determine the charge for 3 minutes.
   The formula is: **(hourly rate ÷ 4) + (number of hours x hourly rate) then round to the nearest tenth.**

   Step 2: (7.90 ÷ 4) + (7.90 x 5)

   Step 3: 1.975 + 39.50 = 41.475

   Step 4: Round 41.475 to the nearest tenth ($41.48)

   Choose the lowest price.

2. The correct answer is D. The operation is to determine the perimeter in yards.
   The formula is: **2(length + width)/feet in a yard**

   Step 1: 2(46 + 34)

   Step 2: 2(80) = 160

   Step 3: 160/3 = 53.333

   Step 4: Express in fraction (53 1/3)

3. The correct answer is A. The operation is to determine the average salary for each clerk, then calculate the difference between the salaries.

   Step 1: Determine average salary of clerk in Department A.
   The formula is **(sum of yearly salaries)/number of years**
   ($15,105 + $15,750 + $16,440)/3 = $15,765

   Step 2: Determine the average salary of clerk in Department B.
   The formula is **(sum of yearly salaries)/number of years**
   ($15,825 + $15,825 + $16,086)/3 = $15,912

   Step 3: Determine the difference in average salaries. $15,912 - $15,756 = $147

4. The correct answer is D.

   Step 1: In the *Cost for Customer Service Training by Region* Table, locate the row for the Southwest Region.

Step 2: Subtract 5 employees who resigned from the original 42 employees in the Southwest Region (42-5=37).
Step 3: Multiply the new number of employees for the region by the Salary cost (37 x $26.25 = $971.25).
Step 4: Multiply the new number of employees for the region by the cost for Training Materials (37 x $9.75 = $360.75).
Step 5: Add the products from the previous two calculations ($971.25 + $360.75 = $1,332.00).
Step 6: Add this product to the costs for the Training facility and Trainer's Fee ($1,332.00 + $850.00 + $550.00 = $2,732.00).

5. The correct answer is C.

Step 1: In the *Cost for Customer Service Training by Region* Table, locate the row for the Southeast and Northwest Regions.
Step 2: Multiply the facility costs for each region by the decimal equivalent of 25% to calculate the increased cost for the training facilities.
Southeast ($425.00 x .25 = $106.25)
Northwest ($875.00 x .25 = $218.75)
Step 3: Add the two products from the previous calculations to the regions original facility costs to calculate the new facility costs.
Southeast ($106.25 + $425.00 = $531.25)
Northwest ($218.75 + $875.00 = $1,093.75)
Step 4: With the new facility costs for the Southeast and Northwest Regions, calculate the cost for training by region by performing the following steps:
a. multiply the number of employees for the region by the Salary cost
b. multiply the number of employees for the region by the cost for Training Materials
c. add the products from the previous two calculations
d. add this product to the costs for the Training Facility and Trainer's Fee
Step 5: The following are the Total Costs by Region:

Region	Salary	Training Materials	Training Facility	Trainer's Fee	TOTAL COST
Northeast	$999.00	$360.75	$925.00	$550.00	**$2,834.75**
Southeast	$1,311.75	$516.75	$531.25	$550.00	**$2,909.75**
Central	$1,320.00	$536.25	$450.00	$550.00	**$2,856.25**
Northwest	$1,020.00	$390.00	$1093.75	$550.00	**$3,053.75**
Southwest	$1,102.5	$409.50	$850.00	$550.00	**$2,912.00**

Step 6: From the provided choices, identify the region that will cost the most for Customer Service Training (Northwest).

6. The correct answer is B. The middle bar of the seven shown represents cities that have populations from 200,000 to 299,000. This bar reaches three fourth the way between 100 and 200. Therefore, the per capita is approximately $175.

7. The correct answer is B. There must be a total of 100% in a circle graph. The sum of the other sectors in this scenario is: 17% + 29% + 37% + 10% = 93%
Therefore the difference between what was budgeted and what was spent is: 100% - 93% = 7%.

8. The correct answer is B. The passage provides two clues to indicate that unclaimed items are sold to the public. First, it states that surplus property is "available for sale to the public." Second, it states that the surplus property includes unclaimed property.

9. The correct answer is A. You must be aware of the guidelines outlined in the policy to ensure that the plans made conform to the policy.