

KINGDOM OF SAUDI ARABIA  
MINISTRY OF CIVIL SERVICE



المملكة العربية السعودية  
وزارة الخدمة المدنية

# **MCS Experience in Selection & Recruitment**

## **(Saudi Arabia)**

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# Outline of the presentation

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- Statistics of MCS.
- Recruitment process.
- Test development process.
- Roadmap for test development projects.
- Screening and sifting model.
- Areas of interest and concerns.

# Statistics of MCS



- As on 28-July-2014 there are total **1,219,064** public sector employees in the kingdom; of which, 61.31% are Males and 38.69% are Females.

Job Category	Saudi nationals	Expatriates	Total
Public service	387,044	959	388,003 (31.83%)
Primary and Secondary education	509,835	3,463	513,298 (42.11%)
Higher education	35,289	15,454	50,743 (4.16%)
Health	105,735	52,247	157,982 (12.96%)
Judges	1,533	0	1,533 (0.13%)
Attorney and Investigators	1,996	0	1,996 (0.16%)
Diplomats	1,033	0	1,033 (0.08%)
Technical and Vocational Training	7,818	954	8,772 (0.72%)
Autonomous bodies	40,388	18	40,406 (3.31%)
Non-classified workers	55,208	90	55,298 (4.54%)
<b>Total</b>	<b>1,145,879</b>	<b>73,185</b>	<b>1,219,064</b>

# Overview of Assessment Needs for MCS .. (contd.)

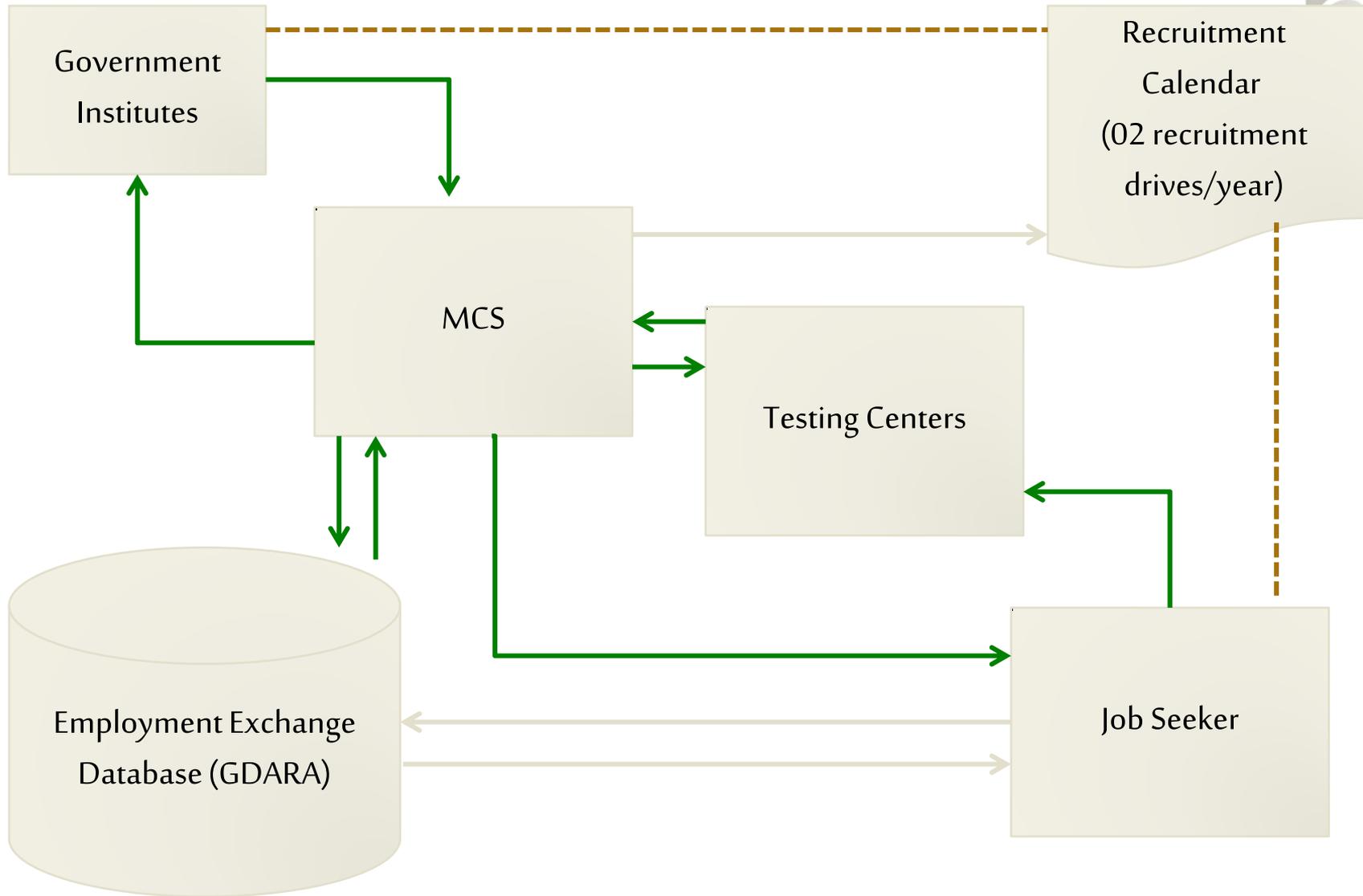


Job Category	Total
Public service	2,968
Primary and Secondary education	96
Higher education	354
Health	1,567
Judges	9
Attorney and Investigators	25
Diplomats	3
Technical and Vocational Training	20
Autonomous bodies	178
Non-classified workers	1,578
<b>Total</b>	<b>7,243</b>

Approx. **14,000+** new employees are hired every year. Out of these approx. 90% are hired by MCS directly and rest are hired by the concerned establishments and their papers are sent to MCS for final approval.

From 04-Nov-2013 to 28-Jul-2014 total **7,243** new employees were hired in different government establishments. (Note: There are two hiring cycles in an year and these number are from first cycle only).

# Recruitment process at MCS





- ❖ Is created to apply Article-1 of Civil Service Act which stipulates merit as the basis of selection for all government jobs.
- ❖ It also aims at meeting the requirements of Article-7 which stipulate following uniform process of advertisement and selection for all jobs below level-10 as per the job specifications.
- ❖ Founder members visited (United States, Belgium, the Netherlands (the European Union) and Japan) to study their selection practices in public service employment.

# Objectives of (ASCSP) Program

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## General objectives :

- Develop assessment and evaluation systems to help the decision-makers in the ministry with objective information about candidates` abilities.
- In the first phase, the program focuses on assessments for entry level job positions.
- Later on, the program will continue with assessment tools for orientation and training.

# Specific Objectives of (ASCSP) Program



## Objective-1 :

Building a variety of tests that are suitable to the nature of the jobs. The current focus on two different types of test.

- General cognitive ability test: For all jobs to assess the level of general cognitive ability of applicants.
- Specialized tests: To measure knowledge and professional skills and characteristics that are applicable to the occupants of specific job functions. The construction of these tests are based on job specifications taken from the job classification manual.

## Objective-2:

Review and develop employee selection criteria based on scientific studies taken to track on job performance of the employee after the appointment.

## Objective-3:

Develop a comprehensive strategic plan including selection criteria, job classification manual and promotions in consultation with other stakeholders.

# Steps to build MCS tests



## Test Blueprint

- Target group identification.
- Study of published job description and specification.
- Identifying content domain and specification.
- Developing test specifications and task shells.

## Item Development

- Item writing
- Item review (content)
- Item review (language)
- Test composition and administration

## Item Analysis

- Classical Analysis (CTT)
- IRT Analysis
- Identification of misfit items.
- Scoring rubrics

## Test Production

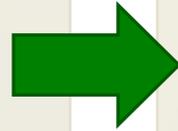
- Item banking
- Alternate forms
- Documentation and technical reports.

# Targeted Majors, Jobs and Composition of IT Test



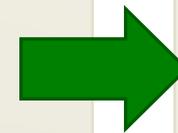
## Majors

- Computer Science and Information Systems
- Applied Information Systems
- Information Systems
- Applied Computer Science
- Information Studies
- Computers Science



## Jobs

- Support Technician
- Specialist Assistant
- Assistant Project Manager
- Software Developer
- Systems Analyst



## Dimensions of IT Test

- General concepts in Computer
- Computer hardware
- Operating Systems
- Programming
- Networks
- Databases
- Information Systems

# Steps to build MCS tests – Example (Test for IT jobs)



## Test Blueprint

### Target group

All entry level IT related jobs.

### JD & JS

Job Classification Handbook

### Content Domain

8 content domains identified:

1. Computer Fundamentals
2. Computer hardware
3. Operating Systems
4. Programming
5. Networks
6. Databases
7. Information Systems
8. Systems Analysis and Design

### Test Specs

- Content must be testing concepts than memory.
- Focus of application and applied knowledge.
- Difficulty level between 20 and 80.
- Avoid specialized knowledge.
- Meet item development guidelines.
- Adequate representation of core topics.

# Steps to build MCS tests – Example (Test for IT jobs)



## Item Development

### Item Writing

Subject matter experts were trained on item writing and provided with Item writing guidelines.

### Item Review

Review by a different team involving SME, Psychometrician and Language expert.

### Composition

One test form with 5 sections. Total 141 questions and total time allowed 2.5 hrs.

### Administration

Proctored administration at designated testing centers across the country on 3969 candidates.

# Steps to build MCS tests – Example (Test for IT jobs)



## Item Analysis

### CTT

To check the basic psychometric properties and identify problematic items. Results, mean-p: 44, mean-r: 25, Chronbach Alpha:0.89

### IRT

To calibrate the items to be used for future in item bank and examine their fit. 3-parameter logistic model was used.

### Flagged Items

All items assessed 4 criteria viz. difficulty, discrimination, distractor quality and IRT parameters. 53 flagged for review, 90 retained.

### Scoring

Number correct total score transformed to a mean of 65 and standard deviation of 10

# Steps to build MCS tests – Example (Test for IT jobs)



## Test Production

### Item banking

Qualified items saved in the item bank with their CTT and IRT properties.

### Alternate Forms

Mix of new and old items for the test year in two alternate forms. Results will be released after equating.

### Documentation

Each and every step and action is documented and published in the technical document to be used for reference in future.



# Roadmap of Test Development

Phase	Assessments	Job Grade	Job category	Timeline
Phase-1	Specific Knowledge, Skill and Ability Tests	6	Accounting	04-Sep-2013 to 27-Aug-2014
		7	HR	
		6	IT law	
Phase-2	General Cognitive Ability Test	6	Jobs with low number of positions or diverse background	20-Feb-2015 to 21-March-2015
	General Cognitive Ability Test & Specific Knowledge, Skill and Ability Tests	6	Information Science	
			Sociology	
			Accounting	
Phase-3	General Cognitive Ability Test	6	Jobs with low number of positions or diverse background	05-Aug-2015 to 16-Aug-2015
	General Cognitive Ability Test & Specific Knowledge, Skill and Ability Tests	6	Psychology	
			Shariya Law	
Phase-4	General Cognitive Ability Test	6	Jobs with low number of positions or diverse background	10-feb-2016 to 10-Mar-2016
	General Cognitive Ability Test & Specific Knowledge, Skill and Ability Tests	6	Economy	
			Physical Education Media	

# Selection Criteria



- Grade point average (GPA)
- Duration of unemployment
- General cognitive ability test score
- Specific ability test score
- Personal interview score

## Nomination score

Nomination Score Component	Relative weight
GPA	55%
Duration of unemployment	45%

The selection equation = weighted nomination score + Weighted general cognitive ability test score + Weighted specific ability test score + Weighted personal interview score

# Weightage of selection components

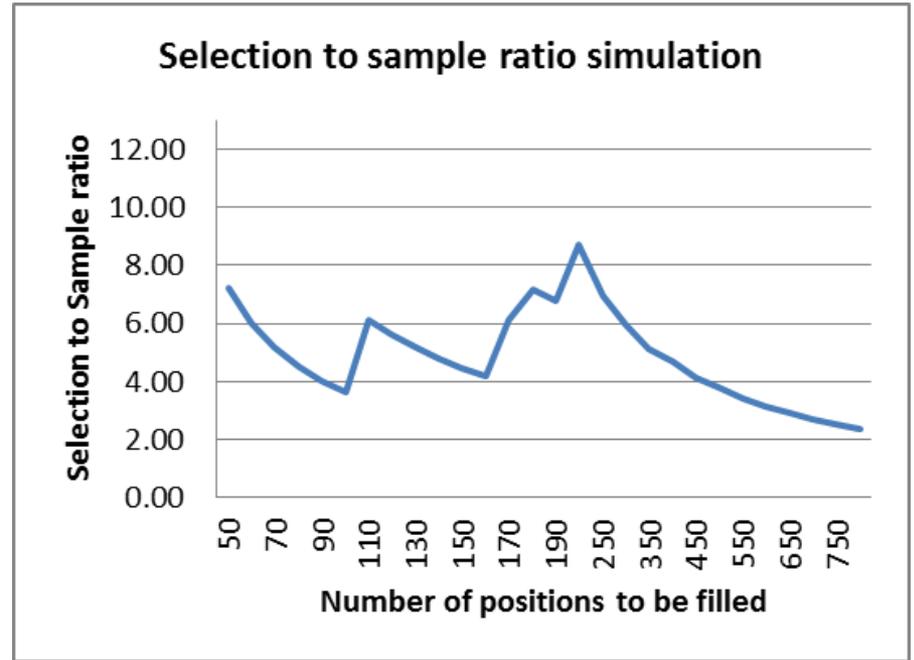
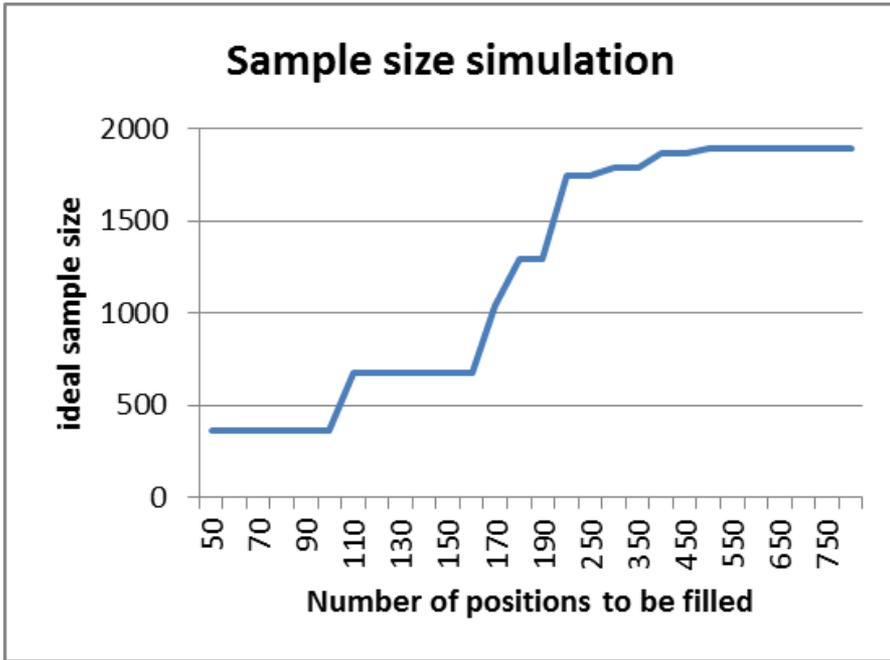


Selection Input	Weight (Year-1)
Nomination Score	50%
General Cognitive ability Test Score	--
Specific Ability Test	45%
Personal Interview	5%

Selection Input	Weight (Year-2)
Nomination Score	35%
General Cognitive ability Test Score	20%
Specific Ability Test	40%
Personal Interview	5%

Selection Input	Weight (Year-3)
Nomination Score	30%
General Cognitive ability Test Score	25%
Specific Ability Test	40%
Personal Interview	5%

# Simulation of optimal number of candidates





- ❖ Centralization Vs. Decentralization of Testing process
- ❖ Create Tests or use ready ones
- ❖ Develop Systems Vs. Outsourced system



**Thank you very much  
for  
your kind attention**