

State of California

MEMORANDUM

Date: July 18, 1988
Reference Code: 88-62

To: PERSONNEL MANAGEMENT LIAISONS

THIS MEMORANDUM SHOULD BE DISTRIBUTED TO:
Personnel Officers

From: Department of Personnel Administration

Subject: Allocation Guides for Data Processing professional classes.

Draft allocation guides for the professional Data Processing classes were distributed to all departments in April 1987. The cover memo indicated that the guidelines would be tested for a nine-month period, and asked departments to submit suggestions for revisions during this time period. The evaluation was to be a joint effort by staff of the Department of Personnel Administration, Office of Information Technology, and the California Forum on Information Technology.

The draft guides have now been in use for over a year, and the evaluation has been completed. No comments or suggestions for revisions were received from departments. Based on a review of the allocations made during the trial period, the draft guidelines for the Data Processing Manager Series, Programmer Analyst Series, and Data Processing Analyst Series are being adopted as "final". One revision is being made to the draft guidelines for the System Software Specialist Series. The guidelines, on page 9, are being changed to delete the provision for this class to be used in a "Complex" setting. The final guidelines (copy attached) provide for the III level to be used only in a "Most Complex" setting. This is in keeping with the concept and existing use of the class.

If you have any questions on the information in this memo, please contact Duella Farmer on 324-9406 (ATSS 454-9406). Questions regarding specific allocations within your department should be directed to your DPA department analyst.

George P. Lloyd II
George P. Lloyd II, Chief
Classification and Compensation Division

ALLOCATION GUIDELINES

FOR

ASSOCIATE SYSTEMS SOFTWARE SPECIALIST (TECHNICAL)
ASSOCIATE SYSTEMS SOFTWARE SPECIALIST (SUPERVISOR)
SYSTEMS SOFTWARE SPECIALIST I (TECHNICAL)
SYSTEMS SOFTWARE SPECIALIST I (SUPERVISOR)
SYSTEMS SOFTWARE SPECIALIST II (TECHNICAL)
SYSTEMS SOFTWARE SPECIALIST II (SUPERVISOR)
SYSTEMS SOFTWARE SPECIALIST III (TECHNICAL)
SYSTEMS SOFTWARE SPECIALIST III (SUPERVISOR)

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I. PURPOSE AND USE OF GUIDELINES

These guidelines are provided to assist in determining the appropriate level of positions within the Systems Software Specialist Series of classes.

These allocation guidelines supplement and clarify the descriptions contained in the series specifications for these classes. They are provided in an attempt to assure appropriate allocations and consistency in the use of these classes by all departments.

These guidelines do not cover every possible combination of duties and responsibilities. Instead, they attempt to describe typical situations and identify those types of factors which should be assessed in justification of the levels within the class series. Identification and assessment of these factors by departments should facilitate the review of position allocation requests by department and DPA personnel.

Included within the guidelines are various quantitative factors. These numbers are not to be interpreted as being absolutes or as primary allocation factors, but should be evaluated along with all other considerations.

The number of long term contract personnel should be factored in when determining classification levels.

II. JUSTIFICATION PROCESS

- A. Requests for refills of positions which are approved by DPA using these guidelines, or positions which clearly meet the guidelines, do not need as much in-depth justification. However, all basic pertinent information relating to the position, including a description of any changes which have occurred, should be included. As is standard procedure, all requests must include a "present" and "proposed" organization chart.
- B. Departments should include the following information in their analysis and justification:
 - 1. A brief description of the functional area(s) of responsibility.
 - 2. Identification of the complexity category, and a description of the pertinent complexity factors which relate to the duties and responsibilities of the position, including a brief description of your computer system, type and number of mainframes, etc. A copy of the completed chart titled "Quantitative Considerations for Determining Organizational Complexity/Size" should be submitted with the request.
 - 3. A summary of staffing as it relates to the position.
 - 4. Identification of nonquantifiable or unique considerations, and discussion as to how they impact the level of the proposed position.
- C. In addition to the above information, DPA staff also evaluates the overall organization and other positions with an organizational or functional relationship to the position in question.
- D. It is recognized that these guides may not always exactly describe a position which is to be filled, and that all factors may not apply to every position. It is the responsibility of Departments to describe their positions in terms which relate to the appropriate factors, as well as describing the complexity of their systems in relation to the factors shown in the attached guidelines.

III. STEPS IN DETERMINING LEVEL

- A. Determine functional area(s) of responsibility for the position (see "Function Definitions" on pages 4 and 5).
- B. Determine complexity of the data processing environment for the organization (see "Quantitative Considerations for Determining Organizational Complexity/Size" on page 6.)
- C. Determine appropriate classification level (see Allocation Guidelines Matrix for SSS Series on page 9).
- D. Supervisory positions in these classes cannot supervise equivalent level Specialist positions.

IV. FUNCTION DEFINITIONS

OPERATING SYSTEMS

The software that schedules program tasks and allocates hardware resources (memory, I/O, peripherals, etc.) in a computer. Personnel working in this area install, modify, update and maintain versions of the operating system provided by a computer vendor.

TELEPROCESSING MONITORS

Specialized software providing message switching abilities and utility functions to the end user. Personnel working in this area install, modify and maintain versions of these monitors which are normally provided by computer vendors. Examples of IBM monitors are CICS and TSO. Incumbents perform tasks such as performance tuning, troubleshooting, maintaining terminal/transaction/program/and file definitions and ensuring security standards are met. This support requires knowledge of the operating system, the network, file access methods, data base systems, security systems and several programming languages.

SUPPORT SOFTWARE

Generalized software providing utility for end users. Personnel responsible for these packages are involved with installation, performance monitoring and the implementation of updates. Direct support to users is normally a part of the job. Support software provides the application programmer and end-user the tools to create applications. Examples of support software include COBOL, Fortran and PL1 compilers, SAS for generating statistical applications, Mark IV, and many others. Incumbents work with vendors and users in troubleshooting support software problems, testing and monitoring effects of new equipment or operating system installs. Some knowledge of the operating system is required as well as the ability to program in several languages, particularly Assembler.

COMMUNICATIONS NETWORK

The software and hardware necessary to enable users to transmit data from one location to another. Personnel working in this area are involved with the analysis, acquisition, installation, maintenance and performance of the network. Normal tasks include installation, modification, testing and monitoring of data communications software residing on communications (front-end) processors as well as the host. Troubleshooting, problem isolation and resolution of teleprocessing network problems through the use of performance and diagnostics software program products. Incumbents provide assistance and consultation to network users and vendors in isolation of hardware malfunctions and problem determination.

CAPACITY PLANNING

The process begins with the monitoring, measurement and tuning of the computer system to obtain the highest level of performance from the hardware and software given the mix of user workload. Capacity planning uses as input the information gathered from system monitoring and measurement for determining future hardware and software needs.

DATA MANAGEMENT

The function of reviewing, analyzing and controlling the placement, retrieval and distribution of data on various computer storage media. Installation and maintenance of data management software subsystems. Development and implementation of data archiving and data backup and recovery capabilities. Problem identification and correction of data management subsystem errors. Monitoring data access and reorganizing data to improve system performance.

DATA BASE MANAGEMENT SYSTEMS

Specialized software to manage and maintain data in such a way that the requirements of several applications can be satisfied from a common data structure. Typical software components of a data base management system include: data dictionary, data definition language and processor, centralized multi-user data access routines for both batch and on-line access, data backup and recovery utilities, data base query tools, and application development languages and tools. In many ways these software systems are miniature operating systems. Personnel working in this area perform a wide variety of tasks such as: install and maintain the software, generate the centralized data access facility, monitor and tune the centralized facility, design and define data bases, load data bases, restructure data bases, monitor and tune the performance of data bases, develop and execute data base backup and recovery plans, implement security provisions to control access to facilities and data, provide assistance and consultation to application development staff, provide troubleshooting and problem resolution, develop and publish DBMS usage standards and procedures. It is not likely that any one position will have responsibility for all of these. The most common situation will be where a position has responsibility for some combination of the tasks.

V. QUANTITATIVE CONSIDERATIONS FOR DETERMINING ORGANIZATIONAL COMPLEXITY/SIZE

Check the box in each row that reflects your environment. "Department Supported" means that your organization provides virtually all of the software/hardware support. "Shared Support" means that your data processing department operates in an environment where another organization, such as a data center, provides all or most of the technical support.

The SSS Series was created for use where there are positions performing the most complex technical jobs in data processing. This is normally in data centers or organizations which have their own computer(s) and provide the majority of their own software/hardware support. With this in mind, the following applies:

If an organization does not have its own computer(s) (ie, Row A cannot be checked), and most of the remaining rows are checked "Standard", use of the SSS series is most likely inappropriate.

If an organization checks most of the boxes signifying "Department Supported", that organization should be considered a level higher in complexity depending on the pattern of check marks. (eg, if five out of the six rows were checked "Department Supported" all in the "Complex" column, the organization would be considered "Most Complex".) The definition of computer for this purpose means mainframe computer and excludes micros and minis. The chart on page 8 identifies mainframe computers currently in use in the State.

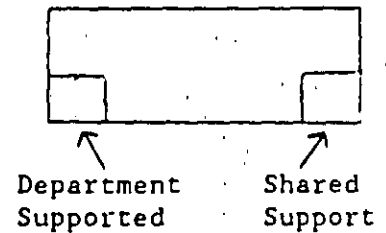
In Row E, the number of DASD is the number of logical disk volumes irrespective of their size.

In Row F, the software package excludes personal computer software.

FUNCTIONS	MOST COMPLEX	COMPLEX	STANDARD
A. HARDWARE AND OPERATING SYSTEM	Coupled Processor or Multiple CPUs	Multiple CPUs and single OS	Single CPU and single OS
B. COMMUNICATIONS	>2000 Terminals	>1000 Terminals	<1000 Terminals
C. TP MONITORS*	>1 Type of Monitor	>1 Monitor	1 Monitor
D. DATA BASE MGMT.	>1 DBMS	1 DBMS	N/A
E. DATA MGMT.	>100 DASD	50-100 DASD	<50 DASD
F. SUPPORT SOFTWARE	>20 Packages	10-20 Packages	<10 Packages

*Includes production monitors only

KEY:



NOTE: See instructions on opposite page for qualifying criteria.

VI. MAINFRAME COMPUTERS (AS OF NOVEMBER 1986)

The following are examples of mainframe computers currently being used by the State:

<u>Organization</u>	<u>Computer</u>
TDC	IBM 3081 IBM 3084 NAS 9060 AMDAHL 5860
HWDC	IBM 3090 - 400 AMDAHL 5890 - 300
BOE	Burroughs B-7900-H
DWR	CDC CYBER 720 UNIVAC 1100-71-H-1
PUC	UNIVAC 1100
DOJ	UNIVAC 1100 - 90 Series
DMV	UNIVAC 1100 - 71/AVP
FTB	IBM 3084

In addition, the IBM 43XX or equivalent size computers can be considered mainframes if they are not predominately a single function processor (i.e., at least 25 percent of the usage of the machine must be for other than a single support function such as RJE, electronic mail, etc.).

VII. ALLOCATION GUIDELINES MATRIX FOR SSS SERIES

FUNCTIONS CLASS		DOES MORE THAN ONE OF 1-7 MULTIPLE FUNCTIONS	DOES ONE OF THESE 1. OPERATING SYSTEMS 2. COMMUNICATIONS NETWORK 3. DATA BASE MGMT. SYSTEMS 4. DATA MANAGEMENT	DOES ONE OF THESE 5. SUPPORT SOFTWARE 6. TELEPROCESSING MONITORS 7. CAPACITY PLANNING
	SSS III	MOST COMPLEX	Supervisor Staff \geq 5 or lead	Supervisor Staff \geq 5 or Lead
COMPLEX				
STANDARD				
SSS II	MOST COMPLEX	Supervisor or lead	Supervisor or Lead	Supervisor or Lead
	COMPLEX	Supervisor or lead	Supervisor	Supervisor
	STANDARD	Supervisor Staff \geq 5		
SSS I	MOST COMPLEX	Journeyman	Journeyman	Journeyman
	COMPLEX	Journeyman	Lead	Lead
	STANDARD	Lead		
ASSOC. SSS	MOST COMPLEX	Entry Level	Entry Level	Entry Level
	COMPLEX	Journeyman	Journeyman	Journeyman
	STANDARD	Journeyman	Journeyman	Journeyman

NOTE: - "Supervisor" must have a staff of \geq 3 except where noted. Position cannot supervise equivalent level "specialist" position.

- Support of only one of the seven functions is required in a column (excluding column one).

MEMORANDUM

To: PERSONNEL MANAGEMENT LIAISONS

Date: August 31, 1988
Reference Code: 88-62

PLEASE DISTRIBUTE THIS MEMORANDUM TO:

All Personnel Officers, Employee Relations Officers, and
Personnel Transaction Staff

From: **Department of Personnel Administration**
Office of the Director

Subject: Changes to the Second Tier Retirement Plan

Recent legislation (Ch. 331, AB 1104) will make several changes to the Public Employees' Retirement System's (PERS) Second Tier plan for State employees. Those changes, effective on November 1, 1988, will:

1. Permit a new employee to elect coverage under the First Tier plan within one year, rather than 120 days, of becoming a PERS member. Employees making the election for First Tier under this provision would be allowed to make up the required contributions directly to PERS by payroll deductions.
2. Provide a one-time only, one year period from November 1, 1988, to October 1, 1989, in which all eligible Second Tier members may:
 - Elect to become First Tier members for all past and future qualifying service, provided all past contributions are repaid to PERS; or
 - Elect to become First Tier members for future qualifying service only and retain prior service credit under the Second Tier.

During the same period, all eligible First Tier members may:

- Elect to become Second Tier members for all past and future qualifying service; or
 - Elect to become Second Tier members for future qualifying service only and retain prior service credit under the First Tier.
3. Reschedule the current annual Second Tier election for eligible First and Second Tier members to one held every five (5) years. The first will be held in November 1994, (five years after the one-time only, one year general election ending October 31, 1989).

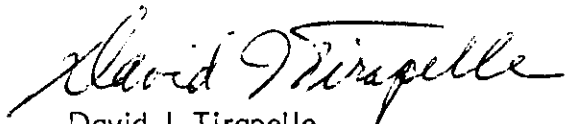
PERS will announce the upcoming general election rights to all eligible members soon, and provide each Second Tier member with individualized cost information relative to returning to coverage under the First Tier plan. PERS will also conduct the general election and provide retirement counseling to all members requesting such help.

Staff from the Policy Development Office, Department of Personnel Administration will conduct training sessions on the new reporting requirements for you and your staff. It is anticipated representatives from PERS and the State Controller's Office will assist in the training. A schedule of training sessions and request for a reservation is attached. Please complete the attached training reservation request and forward to this department by September 26, 1988.

Our staff will also conduct training for interested employees on a schedule to be announced later.

The assistance and cooperation the personnel offices provided in the first Second Tier election was instrumental in making that initial, major addition a smooth process. This change will be less extensive, but will nonetheless require your continued, much appreciated help.

Please contact Oscar Alarcon, Policy Development Office, at (916) 324-0523, ATSS 454-0523 if you would like additional information on the Second Tier changes prior to your training.



David J. Tirapelle
Chief Deputy Director

Attachment

SECOND TIER CHANGES - TRAINING SCHEDULE

<u>Session #</u>	<u>Date</u>	<u>Time</u>	<u>City</u>	<u>Location</u>
1	10/5/88	9:00-11:00	Sacramento	Employment Development Department 722 Capitol Mall, Auditorium
2	10/5/88	1:30-3:30		
3	10/14/88	9:00-11:00		
4	10/14/88	1:30-3:30		
5	10/20/88	9:00-11:00		
6	10/20/88	1:30-3:30		
7	10/11/88	9:00-11:00	Los Angeles	State Building 107 South Broadway, Room 2020
8	10/11/88	1:30-3:30		
9	10/12/88	9:00-11:00		
10	10/12/88	1:30-3:30		
11	10/18/88	9:00-11:00	San Francisco	State Building 350 McAllister Street, Room 1158
12	10/18/88	1:30-3:30		

Complete lower section and return by **SEPTEMBER 26, 1988** (retain copy)

SECOND TIER TRAINING RESERVATION

Department's Contact Person(s) (PLEASE PRINT OR TYPE FULL NAME)

Department _____

Phone Number _____

Sessions requested:

Number of Trainees attending:

MAIL THIS REQUEST TO:

Department of Personnel Administration D-22
Policy Development Office
Attention: Second Tier
1515 S Street, North Building, Suite 400
P. O. Box 944234
Sacramento, CA 94244-2340
(916) 324-9351, ATSS 8-454-9351

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