



This is to certify that the

thesis entitled

"The Preparation of Civil Service Examinations:
A Case History of the Employment Service
Executive Series."

presented by

Norman Berkowitz

has been accepted towards fulfillment
of the requirements for

Master's degree in Political Science


Major professor

Date June 1, 1953

PLACE IN RETURN BOX to remove this checkout from your record.
TO AVOID FINES return on or before date due.

DATE DUE	DATE DUE	DATE DUE
APR 17 1994		

Submit

State

THE PREPARATION OF CIVIL SERVICE EXAMINATIONS:
A CASE HISTORY OF THE
EMPLOYMENT SERVICE EXECUTIVE SERIES

by

Norman Berkowitz

A Thesis

Submitted to the School of Graduate Studies of Michigan
State College of Agriculture and Applied Science in
partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Political Science

1953

11

asista

science

prepare

He

W. Paul

Holigan

don towns

The

W. H. H. to

Philadelphia

service on

action.

6/17/53
g
8

ACKNOWLEDGEMENTS

The author wishes to acknowledge the guidance and assistance of Dr. R. Vance Presthus, Department of Political Science, under whose general supervision this work was prepared.

He wishes to express a particular indebtedness to Mr. Paul T. Anderson, Chief of the Examination Section, Michigan State Civil Service Commission for his contribution toward the writer's knowledge of the field.

The writer further wishes to express appreciation to Mr. Milton Lavine, Chief, Classification and Pay, City of Philadelphia Civil Service Commission, for his review and advice on the sections of the thesis dealing with classification.

LIST OF THE

LIST OF THE

REFERENCES

I. INTRODUCTION

II. THE

Class
Def
Rev

III. THE

Def
Def

IV. THE

Gen
A
Pro
Ope
Ass

V. EDUCATION

Int
Qua
Typ
App

VI. THE

Ear
Bas
Typ
Corr
Mal
True
Sour
Time
Weig
Stat
Sett
Test

TABLE OF CONTENTS

	Page
LIST OF TABLES	iii
LIST OF FIGURES	iv
 CHAPTERS	
I. INTRODUCTION	1
II. THE PROBLEM OF CLASSIFICATION	5
Classification Factors	5
Definitions of Class Levels	6
Review of Class Specifications	8
III. MINIMUM AND DESIRABLE REQUIREMENTS	10
Definition of Minimum Requirements	10
Definition of Desirable Requirements	10
IV. THE PUBLIC ANNOUNCEMENT	13
General Considerations in Drafting the Public Announcement	13
Promotional Problems	14
Open Competitive Considerations	17
Assigning Relative Weights	17
V. EDUCATION AND EXPERIENCE.....	21
Introduction	21
Quality Ratings	22
Types of Rating Charts	24
Appeals from Ratings	48
VI. THE WRITTEN TEST	56
Early Testing Procedure	56
Bases for the Written Test	57
Types of Items	59
Completion Items	60
Multiple-choice Items	62
True-False Items	69
Sources of Items	72
Time Allowances	74
Weighting the Parts of the Test	75
Statistical Procedure	76
Setting the Passing Point	79
Test Analysis	84

REPORTS

III. ORAL

Intro
Stat
Type
Lime

III. VERB

Serv
Proc
Rest

I. SUB

APPENDIX A

APPENDIX B

APPENDIX C

APPENDIX D

.....

.....

.....

.....

..

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

CHAPTERS	Page
VII. ORAL INTERVIEWS	92
Introduction	92
Staffing the Oral Boards	93
Type of Examining Process	94
Limitations	96
VIII. MERIT RATINGS	98
Service Ratings	98
Promotional Potential Ratings	100✓
Restrictions on a Promotional Program	102✓
IX. SUMMARY	104
APPENDIX A. "Committee" protest of Employment Service Executive Examination Results	106
APPENDIX B. Special Report on Service Rating Program	111
APPENDIX C. Derivation of Multiplying Factors Employing an Average of the Effective Range and Inter-Quartile Range Methods.	118
SELECTED BIBLIOGRAPHY	120

.....
.....
.....
.....
.....

.....

.....
.....
.....

.....

.....
.....

.....

.

.....

REES

I. E

II. E

III. E

IV. E

V. E

VI. VA
E

VII. E

VIII. RE
E

IX. DI
E

LIST OF TABLES

TABLES	Page
I. RELATIVE WEIGHTS OF PARTS OF THE OPEN- COMPETITIVE EXAMINATION	20
II. RELATIVE WEIGHTS OF PARTS OF THE PROMOTIONAL EXAMINATION	20
III. EMPLOYMENT SERVICE EXECUTIVE PROMOTIONAL EXAMINATION EXPERIENCE AND TRAINING TABULA- TIONS	49
IV. EMPLOYMENT SERVICE EXECUTIVE OPEN COMPETI- TIVE EXPERIENCE AND TRAINING TABULATIONS....	50
V. RESULTS OF POOR SECTION WEIGHTING TECHNIQUE..	77
VI. VARIOUS METHODS USED TO DERIVE MULTIPLYING FACTORS	79
VII. ENGLISH USAGE SECTION STATISTICS	82
VIII. RESULTS OF EFFECTIVENESS OF ITEMS FOR THE EMPLOYMENT SERVICE EXECUTIVE II	90
IX. DISTRIBUTION OF SERVICE RATINGS IN THE FIVE PERFORMANCE RANGES	100

Appendix

.....

.....

.....

.....

.....

.....

.....

.....

.....

1. Table

2. Experi
hand

3. Experi
Manag

4. Experi
Clerk

5. Experi
Enfor

6. Experi
amine

7. Experi
Train

8. Experi
Chain

9. Experi
Servi

10. Tentat
Scree
Execu

11. Experi
Exam

12. Examin
Execu

13. Sample

14. IBM An

15. Michi
Metho

16. Tabula
Score

LIST OF FIGURES

Figures	Page
1. Table of Weights Used on Examinations in 1946..	19
2. Experience and Training Chart for Game Farm- hand C	26
3. Experience and Training Chart for Liquor Store Manager A2	27
4. Experience and Training Chart for General Clerk B	28
5. Experience and Training Chart for Liquor Law Enforcement Executive III.....	29
6. Experience and Training Chart for Budget Ex- aminer III	30
7. Experience and Training Chart for Buyer Trainee I	31
8. Experience and Training Chart for Unemployment Claims Examiner I	32
9. Experience and Training Chart for Employment Service Executive Series	33
10. Tentative Experience and Training Chart for Screening Purposes Only for Employment Service Executive V - VI	37
11. Experience and Training Chart for Insurance Examiner IIIa	40
12. Examination Outline for the Employment Service Executive Ia-II-IIa-III-IV.....	59
13. Sample Examination Item Source Card.....	60
14. IBM Answer Sheet Marking Procedure	63
15. Michigan Civil Service Answer Sheet Scoring Method	64
16. Tabulation of Hypothetical Total Weighted Scores	80

CHAPTER I

INTRODUCTION

Constructing tests to predict potential and actual job competence is still a comparatively new field. Psychologists have developed tests in the fields of basic aptitudes and intelligence and they are making a notable start toward the development of personality tests; but the construction of tests to predict success on specific jobs has lagged considerably behind.

Governmental civil service agencies have become the pioneers in this field. Most civil service jurisdictions have staffs employed to develop tests pertaining to specific positions. Historically, civil service agencies in the United States have developed narrow job specifications and have recruited personnel to fill these narrow specifications, but this development has not been universal. In England, for example, recruitment has been for broad general classes. British examinations are in liberal and cultural studies and while they might be conducted to secure men with particular qualifications, they are not framed for special¹ appointments to specific positions.

By contrast, in the United States, because of narrow class specifications examinations have been pointed toward a person with a very specialized group of experiences, knowledges and abilities. The recent trend has been toward

gradual r

used by pu

the backgr

isting by

this trend

being disc

is since t

administere

(the, sever

Employment

ent Place

tions in t

Executive

In sp

found in m

civil serv

the techni

classes.

Civil

arbitra

politician

er in the

ates back

the Pendle

extended

each inst.

a gradual reversal. More and more classes have been combined by public personnel agencies to allow for more extensive backgrounds on the part of applicants and for broader testing by the examining agency. A specific example of this trend in action may be found in connection with the jobs being discussed in this paper. Since this paper was begun and since the examination to be discussed in detail was administered and employed to refer qualified applicants to jobs, several other classes have been integrated into the Employment Service Executive class. Two of these are Employment Placement Specialist and Employment Counselor. Positions in these classes are now known as Employment Service Executives.

In spite of this trend, the large majority of classes found in many agencies are still narrow in concept and civil service testing must accordingly accomodate itself to the techniques of examining for comparatively "narrow" classes.

Civil service testing operates in an area restricted by arbitrary rules and in some cases by the whims of politicians. The civil service movement is comparatively new in this country. The rise of the modern merit agency dates back to the enactment by the federal government of the Pendleton Act in 1883.² From that time it has gradually extended itself to various states, cities, and counties. In each instance, the authority has been created by legislative

or cons

authorit

their "pur

principles.

reminicant

is possible

The En

William on

his series

Interviewer

Security Co

service.

Civil

1955 -- ex

Unit. The

passed what

more than 1

service pro

it was p

employees.

Commission

service fun

before par

late 19

and the st

this paper

act or constitutional or charter amendment. Also, the degree of authority has varied and as a result agencies vary in their "purity" or degree of adherence to the strict merit principles. Within the framework of his own agency, the technician can only attempt to prepare as adequate a test as is possible.

The Employment Service Executive series is found in Michigan only in the Michigan Employment Security Commission. This series is the promotional line for employment service interviewers. The employees of the Michigan Employment Security Commission have had a singular experience with civil service.

Civil Service originally came to Michigan employees in 1938 -- examinations were held and civil service staffs were built. The following year, however, the state legislature passed what was known as the "Ripper Act," which removed more than fifty per cent of the employees from state civil service protection. Within two years a constitutional amendment was passed which returned civil service to state employees. In 1942 employees of the Employment Security Commission, whose duties were connected with the employment service functions of the department were federalized and became part of the United States Employment Service. Then in late 1946 the employment service was returned to the state and the stage was set for the ultimate examination with which this paper mainly deals.

One must
state
and service
in the plea
service, we
state civil
and no exam
therefore
because of
the capacity
examination

1. H
st
2. H
A
C

One must keep in mind now a group of employees who first became state civil service employees, were then shorn of civil service protection and either were layed off or served at the pleasure of a spoils system, were returned to civil service, were federalized, and finally were returned to state civil service protection. This group of employees had had no examinations for the five years of federal service, therefore all promotions were temporary; and in many cases, because of manpower shortages, promotions were made above the capacity of the employee. Then, on March 7, 1949, an examination for their class was announced.

-
1. Hiram M. Stout, Public Service in Great Britain, University of North Carolina Press, Chapel Hill, 1938, p. 34.
 2. William E. Mosher and J. Donald Kingsley, Public Personnel Administration, Harper and Brothers, New York, 1941, p. 24.

To un
out in Mic
tions, a s
must be pr

In th
is the bas
transaction
classification
separated w
to class b
may be pre

1. E
2. R
3. C
4. S
5. S
6. R
7. I
8. C
9. E
10. C

CHAPTER II

THE PROBLEM OF CLASSIFICATION

Classification Factors

To understand fully the type of testing program carried out in Michigan, as well as in other civil service jurisdictions, a short resume of the Michigan classification plan must be presented.

In the public service a practical classification plan is the basic tool for carrying out the functions of testing, transactions and pay determination. The State of Michigan classification plan consists of twenty-one class levels integrated with the compensation plan. Positions are allocated to class by levels in terms of the following factors which may be present in any one case in varying combinations:

1. Extent of important public contacts.
2. Responsibility for policy determination.
3. Conditions under which work must be performed.
4. Supervision exercised.
5. Supervision received.
6. Place in organization structure.
7. Intrinsic difficulty of work, including variety.
8. Qualification requirements in terms of education and experience.
9. Exercise of independent judgment.
10. Consequence of error.¹

The fol
guide in t
within thes
unrowed do
entioned.

Routine
An
qu
le
fo
vi
on
co

Helpe
A
o
t
o
N
e
o

Uni

Definitions of Class Levels

The following definitions of work levels are used as a guide in the original determination of class level, and within these the particular position or class is further narrowed down in terms of the allocating factors previously mentioned.

Routine Worker, Beginner or Learner (D-C-C1)

An employee who does simple, repetitive work requiring relatively little attention after it is learned. He works under close supervision and follows detailed directions as to methods. Supervisory responsibilities are limited to patients or inmates, where there is usually a negligible consequence of error.

Examples: Food Service Helper D
General Clerk C
Typist Clerk C1

Helper or Working Supervisor (B-A2)

An employee who helps another with greater knowledge of tools, materials or work processes, subject to frequent checks and controls; or one who reviews or checks the work of others for accuracy or for compliance with instructions, instructs them in the details of the work according to plans or rules laid down by a superior, and preserves order and industry through personal presence, while at the same time performing part of all of the same work processes. He may have nominal supervisory responsibilities. He has some latitude for the exercise of independent judgment. Only minor consequences of error are present.

Examples: Janitor B
Cook A2

Unit Head or Journeyman (A-A1)

An employee who allots tasks or assignments, gives instructions or advice, lays down methods, plans programs as they are given him and who is generally responsible for the work produced by the employees under his guidance; or an employee who performs work in a trade, or sub-profession. He receives general and periodic reviews of his work. He will have considerable latitude for the exercise of independent judgment but only in unvarying and well defined

circ
of

Section
An
or
his
to
hav
The
his
exe
occ
tia

Division
An
as
on
na
be
ne
of
je
ne
ni
ju
s

Top

circumstances. There will be a moderate consequence of error present.

Examples: Farmer A
Carpenter Al

Section Head or Beginning Professional (I-II)

An employee who follows prescribed plans, programs or general instructions, executes minor details on his own responsibility with only occasional reference to a superior for advice and instructions. He may have considerable supervisory responsibilities. There will be only general and infrequent review of his work. He may have rather broad latitude for the exercise of independent judgment, in varying and occasionally unpredictable circumstances. A substantial consequence of error is involved.

Examples: Stenographer Executive I
Civil Engineer I

Division Head or Advanced Professional (III-IV-V)

An employee who reviews the plans and decisions of assistants and subordinates, makes recommendations on matters of policy affecting the work of subordinates and interprets departmental policy. He may be responsible for technical or professional judgment, has control over objectives such as purposes of the work or characteristics of the finished project, and plans for accomplishing the objectives. He receives only irregular review of his work and has a wide latitude for the exercise of independent judgment. Consequence of error may be of extreme significance.

Examples: Executive III
Hospital Physician IV
Buyer IV

Top Management - Specialists (VI-VII)

An employee subject to general administrative policies only, not otherwise controlled as to the general administration of his office. His accountability is primarily for results. He makes decisions on major matters of policy governing the conduct of the work, plans programs and the flow of work. Authority in the case of a specialist may be recommendatory only. Extensive supervisory responsibilities may be present. He deals with a wide variety of professional and/or administrative activities. He has comprehensive latitude for the exercise of independent judgment in varying and unpredictable circumstances. Consequence of error may have the most serious significance. Public contacts are extensive and important.

Examples: Public Utilities Engr. VI
Accountant VII²

The use
generally re
quire addi
organization
features of
classes of

The s
re divide
tion of
gishing
work char
minimum c
experien
and phys

Be
the clas
the tes
the p
fifth
most
adequ
the m
the
they

The use of the intermediate levels, Ia, IIa, etc., is generally reserved for those positions in an agency which require additional recognition due to their place in the organizational structure or because of special or unusual features of the work. Employees are allocated to specific classes of positions on the basis of the above factors.

Review of Class Specifications

The specifications for a class under the Michigan system are divided into five parts: (1) A title; (2) A general definition of the work characteristics of the class; (3) Distinguishing features of the class; (4) Typical examples of the work characteristics of the class; and (5) Desirable or minimum qualification requirements in terms of education and experience, knowledges, abilities, personal characteristics, and physical attributes.

Before formal announcement of the examination is made the class specifications are reviewed by the test examiner. The test examiner reviews the specifications for all of the five factors listed above, but concentrates mostly on the fifth factor. If an entire series is being given, the examiner must check for internal consistency between levels, and for adequate knowledges and abilities for the various levels. He must understand completely the terminology used. There is a decided lack of definition of terms at this time and consequently the examiner must obtain clear definitions in the

order stand

in the exam

The b

specificat

sistency.

It is sub.

happens t

become ou

level may

for colle

Another

experien

went his

of expe

The tes

be sure

is poss

1. 1

2.

review stage so that applications can be rated fairly later in the examination process.

The biggest problem, however, in reviewing the class specifications at this point is the check for internal consistency. A classification plan is not a static instrument, it is subject to constant change. Consequently, it often happens that parts of one specification within a series become out of line with the rest of the series. While one level may call for high school and a higher level may call for college, an even higher level may call for high school. Another illustration would be the requirement for years of experience. Types of experience required might change as one went higher in the series. In some cases the required years of experience might become out of line from level to level. The test examiner must analyze all of the requirements to be sure that an equitable experience and education rating is possible.

-
1. Michigan Civil Service Commission, Memorandum, April, 1947, p. 1.
 2. Ibid., pp. 2-3.

Under
listed on
minimum re
examination
For example
who had ob
field woul
years of e
sufficient
his appli
requireme
rejected.
absolute

Some
the mini
under ei
situation
desirabl
rents f
they ca

CHAPTER III

MINIMUM AND DESIRABLE REQUIREMENTS

Definition of Minimum Requirements

Under the rules of most merit systems, the requirements listed on the class specifications are considered to be minimum requirements. The applications of candidates for examination who do not meet all the requirements are rejected. For example, an applicant who had graduated from college and who had obtained three years of experience in an appropriate field would have his application rejected if more than three years of experience was required. Similarly, if he had sufficient experience but was lacking the necessary education his application would also be rejected. If there was an age requirement and he did not meet it, his application would be rejected. In other words minimum requirements indicate absolute standards required to compete in the examination.

Definition of Desirable Requirements

Some jurisdictions have adopted various modifications of the minimum requirement rule. These organizations operate under either a "desirable requirements" system or some combination of desirable and minimum requirements. Under the desirable requirements applicants need not meet the requirements for any particular part of the examination providing they can do sufficiently better than the desirable requirements

on some other

lack. In

quate amount

by adding

However

minimum re

minimum re

such as ex

in the ill

not be com

ence. Other

Under this

used for

perience,

other par

interview

for one o

the writt

amounts o

In

daily t

Commissi

system.

mination

the fin

apparen

on some other part of the test to compensate for the original lack. In practice, this means that a person with an inadequate amount of education may compensate for his deficiency by adding extra years of experience.

However, there are many variations of the desirable and minimum requirements systems. Some agencies have lifted the minimum requirements on only certain parts of the examination, such as experience and education. If this is the case, then in the illustration above the deficiency in education could not be compensated for except by additional years of experience. Other agencies, have made all requirements desirable. Under this system the applicant could not only have compensated for his educational deficiency by adding years of experience, but also by scoring more than the necessary 70% on other parts of the test, such as the written or the oral interview. Similarly, if he did not meet the requirements for one of the other parts of the examination (if he failed the written test) he could compensate for it by having extra amounts of education and experience.

In spite of a tendency recently to return at least partially to minimum requirements, the Michigan Civil Service Commission in most cases utilizes the desirable requirement system. Since, under this system the scores from any combination of parts may substitute for one another so long as the final score totals up to a passing grade of 70%, it is apparent that the applicant is not held rigidly to passing

any parti
uted tha
to the se
tions bef
all the v
ompleted
passed th
requireme
prints it
and still
his proc
carry out
like the
procedur
force in
adequate

any particular part of the examination. It should also be noted that in Michigan, veterans preference points are added to the score of the candidates on open competitive examinations before the testing procedure begins. Most agencies add the veterans preference points after the test has been completed and then only to those who have successfully passed the examination. In Michigan, under the desirable requirement system, with the addition of veterans preference points it is possible to fail all parts of an examination and still have sufficient points to pass the total test. This procedure severely impairs the ability of the agency to carry out its program of employing only qualified personnel. While the agency is not to be commended for initiating the procedure, veteran's groups have constituted a strong enough force in the past to inhibit its desire to change to a more adequate policy.

CHAPTER IV

THE PUBLIC ANNOUNCEMENT

General Considerations in Drafting the Public Announcement

After the preliminary reviews have been completed by the examiner, work is begun on drafting the public announcement. While a more or less standardized form is established by most jurisdictions, much tailoring must be done to fit the announcement to the specific examination under consideration. Some of the problems that confront the examiner in the preparation of the public announcement are:

1. Levels to be announced.
2. Open-competitive or promotional.
3. If promotional, what departments?
4. If promotional, which employees (level with status, etc.)?
5. If open-competitive what residence requirements are to be employed?
6. Weights of the various parts of the examination.

Provisional Employees

In Michigan the announcing of examinations is conditioned by the number of persons employed provisionally within a class; the length of time that provisionals have been in a class; the length of time since the examination was last announced, and the potential future need of the class.

Ideally, of course, there should be no provisional employees under a merit system, but the Michigan Civil Service

General Council

After

Chairman, W

Will a mor

not juris

Announceme

Size of the

Paration o

1. 1

2. 1

3. 1

4. 1

5. 1

6. 1

None

a 12

12

12

12

CHAPTER IV

THE PUBLIC ANNOUNCEMENT

General Considerations in Drafting the Public Announcement

After the preliminary reviews have been completed by the examiner, work is begun on drafting the public announcement. While a more or less standardized form is established by most jurisdictions, much tailoring must be done to fit the announcement to the specific examination under consideration. Some of the problems that confront the examiner in the preparation of the public announcement are:

1. Levels to be announced.
2. Open-competitive or promotional.
3. If promotional, what departments?
4. If promotional, which employees (level with status, etc.)?
5. If open-competitive what residence requirements are to be employed?
6. Weights of the various parts of the examination.

Provisional Employees

In Michigan the announcing of examinations is conditioned by the number of persons employed provisionally within a class; the length of time that provisionals have been in a class; the length of time since the examination was last announced, and the potential future need of the class.

Ideally, of course, there should be no provisional employees under a merit system, but the Michigan Civil Service

Commission
provisional
sures of the
ment report
vice Commis
I cannot t
Michigan E
I do not b
number of
criterion
many factor
of pay, ge
affect the
large num
of time o
mechanism
is being
exists fo
can be re

When
sirable
However
factor.
are man

Commission has been unable to eliminate them. The number of provisional employees is one of the generally accepted measures of the success of a public personnel agency. In a recent report on Michigan government, the Michigan Civil Service Commission¹ was severely attacked on this score. While I cannot tell whether the number of provisional employees in Michigan government is excessive, I would like to say that I do not believe a simple statement of fact concerning the number of provisional employees is, in itself, a valid criterion of the effectiveness of a personnel agency. Too many factors such as maintenance of adequate standards, rates of pay, geography, and war-caused manpower shortages may affect the number of provisional employees. Retaining a large number of employees on the payroll for extended periods of time on a provisional basis, however, can be used as a mechanism to subvert the merit principle. A constant struggle is being waged in Michigan, and if a normal labor market exists for the next few years, it is hoped that this problem can be reduced to an insignificant proportion.

Promotional Problems

When considering which classes to announce, it is desirable to announce continuous levels within a series. However, even here, considerations must be given to the cost factor. If no vacancies exist on the III level, but there are many vacancies on both the II and IV levels, the examiner

may decide

if a large

sion may

ing the I

that, in

occur dur

for elimin

duration

unless sp

eligible

one, two,

certain e

In t

in this p

numbered

for sever

either pr

Since the

for sever

status, t

the entire

tional ba

employees

It was fu

least at

may decide to announce the III level anyway. To the contrary, if a large number of applications is anticipated, the decision may be to eliminate the III level. The cost of announcing the III level might be quite high, and if one considers that, in all likelihood, no vacancies in the class will occur during the life of the eligible list, then the basis for eliminating the intermediate level can be seen. The duration of eligible registers in Michigan is three years unless specifically extended by the Commission. The life of eligible registers in other agencies varies; usually it is one, two, or three years. Some agencies vary the life of certain eligible registers, depending on the class.

In the series specifically selected for consideration in this paper, all levels were announced. It should be remembered that no examinations had been given in this series for several years and large numbers of employees were working either promotionally or otherwise on a provisional basis. Since the Employment Service was under federal jurisdiction for several years many employees were hired who had no status, therefore, the decision in this case was to announce the entire series on both an open competitive and a promotional basis. The promotional examination was restricted to employees of the Michigan Employment Security Commission. It was further restricted to employees who had status at least at the A level.

Limit

ent and to

Intended to

service to

a frank need

applying, a

For example

restriction o

applied for

working with

tive) inste

could apply

above, or

ployed. Th

Restrict p

ment who i

examination

minimum re

tions are

levels bel

the time l

tions for

is felt th

their pre

ilities

number of

Limiting the promotional examination to the one department and to persons working above the clerical level was intended to confine the number of candidates from within state service to those who were apt to be best qualified. This is a frank mechanism to discourage unqualified candidates from applying, and it can be employed in a combination of ways. For example, in the Employment Service Examinations, the restriction could have been set at one level below the one applied for, or it could have been set so that only employees working within the specific series (Employment Service Executive) instead of anyone in the department at a certain level could apply. A combination of the two methods described above, or a number of other combinations could have been employed. The current practice in Michigan is to generally restrict promotional examinations to anyone within a department who is working at no lower than two levels below the examination. This method is used, subject, of course, to minimum requirements where they might exist. Class specifications are being written more and more so that persons two levels below may qualify and the reason for this trend is the time lag in giving examinations. In many cases, examinations for a series are not given for two or three years. It is felt that restricting employees to only one level above their present position either restricts promotional possibilities for extended periods of time, causes an increased number of provisional appointments, or both.

In a
basis, as
quently,
announcem
ment offi
possible
announcem
however,
exception
requireme
six month
and this
mortgage
filled for
 manpower
dence req
Social wo
residence

The
examinati
service e
to agency
zig-zag

Open Competitive Considerations

In announcing the examination on an open competitive basis, as broad a sample as possible was desired. Consequently, besides arranging for the normal distribution of announcements to all county buildings, colleges, and employment offices, the examiner was required to discover other possible sources of qualified applicants and to distribute announcements to them. One major restriction applies, however, to the distribution of announcements. Almost without exception, public merit agencies operate under residence requirements. The Michigan Civil Service Commission requires six months residence in Michigan to qualify for examinations and this rule is broken only in classes where the manpower shortage is serious enough to cause positions to remain unfilled for long periods of time. Examples of classes where manpower shortages exist at the present time and where residence requirements are waived are Physician and Psychiatric Social Worker. In the Employment Service Executive Series, residence was restricted to Michigan.

Assigning Relative Weights

The distribution of weights to the various parts of the examination is still one of the unsolved problems of civil service examining. There is hardly any uniformity from agency to agency on this problem. In Michigan weights have followed a zig-zag path. During the time of the administration of the

employers

shows the

various p

At t

has taken

part of t

examinati

involved

presented

ous parts

near futu

will be a

additional

experience

than the v

lent rece

experience

Liquor En

the assign

for the s

experience

Since

to distri

Series wa

that show

Employment Service Executive Series the following memorandum shows the formula employed to distribute weights to the various parts of the examinations. (See Figure 1, page 19.)

At the present time, however, an almost complete reversal has taken place. The emphasis has shifted to the written part of the examination. Weights are now assigned to each examination after a complete review of the various factors involved and there is no longer a formula such as the one presented above which pre-determines the weights of the various parts. A trend has set in and it indicates that for the near future, at least, the written part of the examination will be assigned the heaviest weight. Further, when there are additional parts added to the examination, the weight of the experience and training (education) part will drop rather than the weight of the written part. An interesting development recently has been the complete elimination of the experience and education factor. This has been done in the Liquor Enforcement Officer II promotional examination, where the assigned weights were 75% for the written test and 25% for the service rating. This class had minimum education and experience requirements.

Since the memorandum shown above was used as a guide to distribute weights when the Employment Service Executive Series was announced, the actual breakdown of weights was that shown in Tables I and II (page 20).

State of Michigan
CIVIL SERVICE COMMISSION

Memorandum

To: Recruiting Staff

June 20, 1946

From: Chief of Examination Section

Subject: In preparing examination announcements, the following weights should be used on the various parts of the examination, effective as of the date that this memorandum is received.

Open Competitive Examinations

Class Level	Written Test	E & T Applic.	Oral Interview or Examination	Performance Test	Total
C	60%	40%			100%
C1	60%	40%			100%
C1	20%	40%		40%	100%
B	60%	40%			100%
B	20%	40%		40%	100%
A2	55%	45%			100%
A2	20%	45%		35%	100%
A	55%	45%			100%
A	20%	45%		35%	100%
A	20%	45%	35%		100%
I	50%	50%			100%
I	20%	50%	30%		100%
I	20%	50%		30%	100%
II	45%	55%			100%
II	20%	55%	25%		100%
II		55%	45%		100%
III	40%	60%			100%
III	20%	60%	20%		100%
III		60%	40%		100%
IV,V,VI,VII	40%	60%			100%
IV,V,VI,VII	20%	60%	20%		100%
IV,V,VI,VII		100%			100%

Promotional Examination

Class Level	Written Test	E & T Applic.	Oral Intv. or Exam.	Perf. Test	Service Rating	Total
All Levels	35%	40%			25%	100%
All levels	15%	35%		25%	25%	100%
All levels	15%	35%	25%		25%	100%
All levels		50%	25%		25%	100%
All levels		75%			25%	100%

Figure 1. Table of Weights Used on Examinations in 1946

RELATIVE WE

Examination

Employment
E

RELATIV

Examination

Expi. Ser
Ex

*
t
t
i
s
t

1. Lou
o
o

TABLE I

RELATIVE WEIGHTS OF PARTS OF THE OPEN-COMPETITIVE EXAMINATION

Examination		Written Test	Exp. and Training	Oral Intv.	Oral Exam.
Employment Service					
Executive	Ia	20%	50%	30%	
	II	20%	55%	25%	
	IIa	20%	55%	25%	
	III	20%	60%	20%	
	IV	20%	60%	20%	
	V*		60%		40%

TABLE II

RELATIVE WEIGHTS OF PARTS OF THE PROMOTIONAL EXAMINATION

Examination		Written Test	Exp. and Training	Oral Intv.	Oral Exam.	Service Rating
Empl. Serv.						
Exec.	Ia	15%	35%	25%		25%
	II	15%	35%	25%		25%
	IIa	15%	35%	25%		25%
	III	15%	35%	25%		25%
	IV	15%	35%	25%		25%
	V*		40%		35%	25%
	VI*		40%		35%	25%

- *The oral examining board rated the experience and training of the candidate also on the basis of the interview. However, the civil service staff constructed a tentative experience and education chart which was used to choose candidates to appear before the oral examining board.

1. Louis L. Friedland, Personnel Administration in Michigan Government (Lansing, Michigan Joint Legislative Committee on Reorganization of State Government, 1951), p. 45.

The
been the
ence. Re
aided hop
Some of t
examinati
ratings,
visions,
on the sp
these add
into the
character
non-weight
the parti
No points
factor un
unweighte
sion's ad
the Stude
results o
side in

CHAPTER V

EDUCATION AND EXPERIENCE

Introduction

The basic components of civil service examinations have been the written test and the rating of education and experience. Refinements in the examining procedure have been added hoping to increase the validity of the procedure. Some of these refinements have been the addition to the examination of ratings of promotional potential, service ratings, oral interviews, oral examinations, physical examinations, performance tests, seniority, and others, depending on the specific examination under consideration. Some of these additional parts have been weighted and incorporated into the test score, while others, such as the personal characteristics investigation, have been incorporated on a non-weighted basis; that is, either the candidate passes the particular test or he is eliminated from the examination. No points are allowed for having various degrees of the factor under consideration. An interesting variation of this unweighted technique was the Detroit Civil Service Commission's administration of an unweighted personality test in the Student Technical Assistant Examination in 1945. The results of the personality test were used later only as a guide in the oral interview.

In any
examining p
of civil se
and the edu

The p
is to eval
specific w
It is still
too uncert
tion on th
remain ve
There rem
ational
knowledge
any level
tion comm
ence as v

The
difficul
those em
starts h
educatio
to quali
have not

In any case, and in spite of the modifications of the examining procedure listed above, the basic component parts of civil service examinations still remain the written test and the education and experience rating.

The primary purpose of rating education and experience is to evaluate the background of the candidate in terms of specific work assignments and educational courses attained. It is still recognized that the validity of written tests is too uncertain at the present time to chance a total evaluation on the basis of that one factor. Written tests still remain verbal samplings of the field under consideration. There remains too much change of candidates with recent educational contacts having acquired sufficient vocabulary and knowledge in a particular field to pass a written test at any level. The education and experience part of the examination compensates for this defect by demanding actual experience as well as education and ability to pass a written test.

Quality Ratings

The rating of education and experience has been a difficult problem in civil service agencies, especially in those employing desirable rather than minimum requirements. Charts have been constructed which quantitatively measure education and experience, but when an attempt has been made to qualitatively rate education and experience the results have not been too satisfactory. The problem, of course, is

how to ob

under desi

tative mee

candidates

written s

perience p

other han

the writt

with prac

One

experien

conceivab

nothing f

score. B

written t

this prob

fall the

even here

and inade

problem.

rate edu

on level

class sp

such as

this is

has the

how to objectively rate quality. Jurisdictions which operate under desirable requirements are much more in need of qualitative measurements. Without the qualitative measurement, candidates become able to pass examinations with very low written scores. This is possible where the education and experience part of the examination is heavily weighted. On the other hand, if education and experience is lightly weighted, the written-test-wise candidate, may pass the examination with practically no experience.

One obvious answer would be to disallow long years of experience if the written test has been failed. This could conceivably be done because apparently the candidate gained nothing from his experience as evidenced by his low written score. But here again, the assumption must be made that the written test has a high validity. With minimum requirements, this problem is greatly reduced, since those candidates who fail the written are eliminated from the test. However, even here, there are factors, such as low passing points and inadequate samples, which do not completely eliminate the problem. To the writer's knowledge, the major attempts to rate education and experience qualitatively have been based on level of experience and progression of experience. Some class specifications have even been written with statements such as "experience of an increasingly difficult nature." This is an attempt at a qualitative approach, but it still has the serious shortcoming of forcing the examiner, usually

on the basis

increasingly

An e

the factor

experience

background

the requ

action a

and obje

objecti

may be

type of

whether

tain gr

Michigan

out a

types

admini

beyond

by the

a glar

B

some b

1

equal

on the basis of written statements only, to evaluate the increasingly difficult nature of the experience.

Types of Rating Charts

An education and experience chart is constructed wherever the factor is weighted in an examination. An education and experience chart is used to evaluate and rank the various backgrounds of the candidates. This chart is always based on the requirements of the class as listed in the class specification and it is presumably a measure administered fairly and objectively to all candidates. While candidates are rated objectively and uniformly on the basis of the chart, there may be inherent factors in its construction which favor one type of background over another. In practice, all charts, whether by design or accident, tend to show partiality to certain groups. Listed below are a number of charts used by the Michigan Civil Service Commission (pages 26-40). Each points out a different emphasis, as well as illustrating different types of construction. Each chart is fair and equitable and, administered fairly and objectively by the merit agency, is beyond reproach, legally or otherwise. Yet, the group favored by the particular construction of the chart will be seen at a glance in each case.

Before studying the charts it would be well to state some basic principles followed in Michigan:

1. The desirable or minimum requirements will always equal 70% of the weight assigned to education and experience.¹

2. The
weight assign

3. The
requirements

4. The
would be 70
the minimum
tion and re

Figure

A decision
the weight
not be too
candidates
allocated
attention sh
high schoo
equals tw
education
can be sh
plus the
25.5, wou
drop of o
tion, wou
An attempt
chart by
quality o
to someone
no recent

2. The maximum allowable will never exceed 100% of the weight assigned to education and experience.

3. The fewest points attainable under desirable requirements could be as low as zero.

4. The minimum attainable under minimum requirements would be 70% of the assigned weight. Candidates not meeting the minimum requirements would be rejected from the examination and receive no score.

Figure 2 (page 26) illustrates a simple construction. A decision was made that experience should carry the bulk of the weight, and that a lack of the necessary education would not be too serious in evaluating the qualifications of the candidates. As a result, twenty-six of the forty points were allocated to experience and only fourteen to education. Attention should be given to the fact that the requirements of high school (10.5) and a background in general farming (17.5) equals twenty-eight points or 70% of the points assigned to education and experience. The lack of emphasis on education can be shown by the score obtained with only the ninth grade plus the necessary experience background; the score received, 25.5, would equal about 63 per cent. On the other hand, a drop of only one year in experience, with the necessary education, would produce a score of only 10.5 or about 26 per cent. An attempt at a qualitative approach is represented in the chart by the statement allowing two points for recentness and quality of experience. These two points would not be given to someone who had farmed sometime in his background, but had no recent experience. (Text continues on page 41.)

Fig

Examination

ESTIMATE

Either (1)
from high s
experience

EDUCAT

Grade

4	-
5	-
6	-
7	-
8	-
9	-
10	-
11	-
12	-
1	-
2	-

Allow 1 P
short cou

Deduct $\frac{1}{2}$
college w
trial fie

Figure 2. Experience and Training Chart for

GAME FARMHAND C

Examination Date: October 15, 1949

Weight: 40%

DESIRABLE QUALIFICATION REQUIREMENTS:

Either (1) a background in general farming, and graduation from high school; or (2) an equivalent combination of the experience and training described above.

<u>EDUCATION</u>			<u>EXPERIENCE</u>		
<u>Grade</u>		<u>Points</u>	<u>Years</u>		<u>Points</u>
4	-	3	0	-	0
5	-	4	$\frac{1}{2}$	-	12
6	-	5	1 or farm-		17.5
7	-	6	background		
8	-	7	2	-	19
9	-	8	3	-	21
10	-	9	4	-	22
11	-	10	5	-	23
12	-	10.5	6	-	24
1	-	12			
2	-	13			

Allow 1 point for 16 weeks short course in agriculture.

Deduct $\frac{1}{2}$ credit per year if college was not in agricultural field.

Allow farm background up to 16 years of age.

After 16 years, allow as farm experience.

Allow a maximum of 2 points for recency and quality of experience.

Fig

Examination

ESTIMABLE

(1) Three y
shall have
school grad
and training

EDUCATION

Completion
of 6th
grade

Completion
of 12th
grade

Interpolat

Allow full
above 2 ye

Deduct 4 p
manager bu
for a give

Give $\frac{1}{4}$ cre

Figure 3. Experience and training chart for
LIQUOR STORE MANAGER A2

Examination Date: August 5, 1944

Weight: 40%

DESIRABLE QUALIFICATION REQUIREMENTS:

(1) Three years of retail store experience, one year of which shall have been as manager and completion of the twelfth school grade, or (2) an equivalent combination of experience and training.

<u>EDUCATION</u>	<u>EXPERIENCE</u>		<u>EDUCATION</u>	<u>EXPERIENCE</u>	
	<u>Years</u>	<u>Points</u>		<u>Years</u>	<u>Points</u>
Completion of 8th grade	0	10	Completion of 10th grade	0	14
	$\frac{1}{2}$	12		$\frac{1}{2}$	16
	1	14		1	18
	2	16		2	20
	3	18		3	22
	4	20		4	25
	5	22		5	28
	6	25		6	32
	7	28		7	36
	8	32		8	38
	9	36		9	39
	10	38		10	40
	11	39			
	12	40			
Completion of 12th grade	0	18	Completion of 2 yrs. college	0	22
	$\frac{1}{2}$	20		$\frac{1}{2}$	25
	1	22		1	28
	2	25		2	32
	3	28		3	36
	4	32		4	38
	5	36		5	39
	6	38		6	40
	7	39			
	8	40			

Interpolate for 9th and 11th grades and one year college.

Allow full credit only for retail store experience as MANAGER above 2 years of regular retail store experience.

Deduct 4 points for lack of any retail store experience as manager but do not go below points shown for no experience for a given amount of training.

Give $\frac{1}{4}$ credit for general retail store experience.

Examination

ESSE

One year of
high school

Note:

EDUCATION

Less than

1
1
1
1 year gen
colle
2 years ge
colle

1 year bus

Figure 4. Experience and training chart for

GENERAL CLERK B

Examination Date: December 17, 1949

Weight: 40%

DESIRABLE QUALIFICATION REQUIREMENTS:

One year of general office experience, and graduation from high school.

Note: One year of general office experience may be substituted for one year of high school up to a maximum of two years.

<u>EDUCATION</u>	<u>EXPERIENCE</u>						
	<u>0</u>	<u>$\frac{1}{2}$ Yr.</u>	<u>1 Yr.</u>	<u>2 Yrs.</u>	<u>3 Yrs.</u>	<u>4 Yrs.</u>	<u>5 Yrs.</u>
Less than 8th grade	1	2	3	4	5	10	15
8th	3	6	9	12	16	20	24
9th	8	12	16	20	24	28	32
10th	13	16	19	23	28	40	
11th	18	21	23	28	40		
12th	23	26	28	40			
1 year general college	24	27	28	40			
2 years general college	28	35	40				

1 year business college equals 2 years general college.

Fig

Examination

DESERABLE

Four years
Investigat
of such ex
administra
and train

10 or less

11

12

1

2

3

4

Speciali
Police a

Figure 5. Experience and training chart for

LIQUOR LAW ENFORCEMENT EXECUTIVE III

Examination Date: February 18, 1950

Weight: 20%

DESIRABLE QUALIFICATION REQUIREMENTS:

Four years of experience in liquor law enforcement as an investigator, and graduation from high school; or two years of such experience and graduation from college in police administration; or an equivalent combination of experience and training.

<u>EDUCATION</u>			<u>EXPERIENCE</u>	
	<u>General</u>	<u>Specialized</u>	<u>Years</u>	<u>Points</u>
10 or less	1		Less than 1	0
11	5		1	1
12	7		2	4
1	8		3	6
2	8.5		4	7
3	8.75	9.5	5	8
4	9	10.0		

Specialized education equals police administration major.

Allow up to 2 points for over-all quality of combination of experience and education. Eg. Experience on a higher level than an investigator together with a college degree in an appropriate speciality, or other similar combinations.

Examination

REMARKS

(1) Four ye
engineering
graduation
ing and fin
or public 1
college, an
public adm
experience

Any ma
with n
course
Accoun
and Fi

12	3
1	7
2	12
3	17
4	21
5	
6	
7	

Add 1 poin
procedures
organizati

Figure 6. Experience and training chart for

BUDGET EXAMINER III

Examination Date: October 23, 1950

Weight: 60%

DESIRABLE QUALIFICATION REQUIREMENTS:

(1) Four years of experience in accounting, budget examining, engineering, public health, economics or social work, and graduation from an accredited college with courses in accounting and finance; or (2) three years of experience in private or public financial administration, graduation from an accredited college, and possession of a master's degree in business or public administration; or (3) an equivalent combination of the experience and training described above.

EDUCATION

	Any major with no courses in Accounting and Finance	Any major with courses in Accounting and Finance, or Major in Social Work or Engr. with no courses in Acct.&Finance	Major in Acct., Bus.Ad., Pol. Sci., Econ., or Major in Engr. or Social Work, with courses in Accounting and Finance	Graduate major in any field of Public Ad. or Bus. Ad.
12	3			
1	7	7	7	
2	12	12	12	
3	17	24	27	
4	21	28	30	
5				32
6				36
7				40

EXPERIENCE

<u>Years</u>	<u>Points</u>
Less than 1 year	- 0
1 to 2 years	- 1
2 to 3 years	- 6
3 to 4 years	- 10
4 to 5 years	- 14

Add 1 point per year's experience as a budget examiner or procedures analyst or equivalent in a large public or private organization (but no more than 6 points).

Examination

EDUCATION

Graduation
in business
management,
courses in

EDUCATION

College
4 years
5 years
6 years
7 years

Allow up
for over-
ness of
purchasing

Figure 7. Experience and training chart for

BUYER TRAINEE I

Examination Date: November 19, 1949

Weight: 40%

MINIMUM QUALIFICATION REQUIREMENTS:

Graduation from an accredited college with specialization in business or hotel administration or institutional management, or equivalent, preferably with one or more courses in purchasing.

EDUCATION

College in speciality	
4 years	28
5 years	31
6 years	33
7 years	36

Allow up to one point for over-all appropriateness of courses including purchasing.

EXPERIENCE

6 months	-	1
1 year	-	2
2 years	-	3

Experience must be in purchasing.

Fig.

Examination

DESIRABLE

Either (1)

shall have

payment of

and graduate

accredited

labor relat

Any combina

add to base

Deduct 5 po

If less th

For specia

points per

equivalent

High school

1 year gen

2 years ge

3 years ge

4 years ge

5 years ge

6 years sp

7 years sp

Claims Exa

General Cla

Office of

Working on

the state

Figure 8. Experience and training chart for
UNEMPLOYMENT CLAIMS EXAMINER I

Examination Date: November 5, 1949

Weight: 40%

DESIRABLE QUALIFICATION REQUIREMENTS:

Either (1) four years of office experience, one year of which shall have been of a responsible nature in the processing or payment of unemployment compensation claims or its equivalent and graduation from high school; or (2) graduation from an accredited college preferably with courses such as economics, labor relations and public unemployment insurance.

<u>Education</u>	<u>General</u>	<u>Special</u>
12	4	1
1	3	1
2	2	1
3	1	1
4	0	0

Any combination on above chart equals 28 points.

Add to base of 28 points: 2 points if applicant has 4 years of college with courses in economics, labor relations, and unemployment insurance. 3 points for 5 years of above special education.

Deduct 5 points for each year less than high school offered.

If less than required number of years is offered, deduct:

General experience - 4 points per year

Special experience - 10 points per year

For special experience in addition to required amount, add 2 points per year up to maximum allowable with educational equivalent.

Special Experience Maximums Allowable

High school or less	3	Note: Special college equals courses in economics, labor relations and unemployment insurance.
1 year general college	4	
2 years general college	5	
3 years general college	6	
4 years general college	8	
3 years special college	10	
4 years special college	12	

Special Experience Equals

Claims Examiner A or better experience from 3/46

General Clerk A experience prior to 3/46 either in a local office of the Michigan Unemployment Compensation Commission working on claims or in the claims determination section of the state offices.

Examinat

DESIRABLE
Ia Level

(1) F
perso
or (2
accre
minis
and g
tion

II Level

(1) S
perso
been
school
which
accre
nistr
or gu
tion

III Level

(1) S
perso
in a
or (2
tion
busin
educa
combi

III Level

(1) S
inclu
or em
a sup
school
which
accre
nistr
or gu
natio

Figure 9. Experience and training chart for

EMPLOYMENT SERVICE EXECUTIVE SERIES

Examination Date: May 7, 1949

Weights:

		OC	PX
	Ia -	50%	35%
II -	IIa -	55%	35%
III -	IV -	60%	35%

DESIRABLE QUALIFICATION REQUIREMENTS:Ia Level

(1) Five years of responsible experience in employment or personnel office procedures, and graduation from high school; or (2) one year of such experience, and graduation from an accredited college with courses in public or business administration, vocational rehabilitation, vocational education and guidance, or related fields; or (3) an equivalent combination of the experience and training described above.

II Level

(1) Six years of responsible experience in employment or personnel office procedures, one year of which shall have been in a supervisory capacity and graduation from high school; or (2) two years of such experience, one year of which shall have been specialized, and graduation from an accredited college with courses in public or business administration, vocational rehabilitation, vocational education or guidance, or related fields; or (3) an equivalent combination of the experience and training described above.

IIa Level

(1) Six years of responsible experience in employment or personnel office procedures, two years of which shall have been in a supervisory capacity, and graduation from high school; or (2) two years of such specialized experience, and graduation from an accredited college with courses in public or business administration, vocational rehabilitation, vocational education or guidance, or related fields; or (3) an equivalent combination of the experience and training described above.

III Level

(1) Six years of experience in employee placement processes including registration, counseling and selective placement, or employer contacts, two years of which shall have been in a supervisory or technical capacity and graduation from high school; or (2) three years of such experience, two years of which shall have been specialized, and graduation from an accredited college with courses in public or business administration, vocational rehabilitation, vocational education or guidance, or related fields; or (3) an equivalent combination of the experience and training described above.

Figure 9 (c)

IV Level

(1) Severe
including
employee
procedu
(2) thr
have be
colleges
vocation
or relat
experie

All Point
factor for

High School
or Less

1 Yr. Ge

2 Yrs. 3

3 Yrs. 0

3 Yrs. 9

4 Yrs.

4 Yrs.

5 Yrs.

5 Yrs.

Deduct

Combin

If less

1a, II

3 point

3 point

For s

accro

Figure 9 (continued)

IV Level

(1) Seven years of experience in employee placement processes including registration, counseling and selective placement, or employer contacts, two years of which shall have involved procedures evaluation, and graduation from high school; or (2) three years of such experience, one year of which shall have been specialized, and graduation from an accredited college with courses in public or business administration, vocational rehabilitation, vocational education or guidance, or related fields; or (3) an equivalent combination of the experience and training described above.

All Points used on this chart based on PX - Use conversion factor for OC

	<u>Ia</u> <u>Gen. Spec.</u>		<u>II</u> <u>Gen. Spec.</u>		<u>IIa</u> <u>Gen. Spec.</u>		<u>III</u> <u>Gen. Spec.</u>		<u>IV</u> <u>Gen. Spec.</u>	
High School or Less	5	0	6	1	6	2	6	2	7	2
1 Yr. Gen.	4	0	5	1	5	2	5	2	6	2
2 Yrs. Gen.	4	0	5	1	5	2	5	2	6	2
3 Yrs. Gen.	3	0	4	1	4	2	4	2	5	2
3 Yrs. Spec.	2	0	3	1	3	2	3½	2	4	1
4 Yrs. Gen.	3	0	4	1	4	2	4	2	5	2
4 Yrs. Spec.	1	0	2	1	2	2	3	2	3	1
5 Yrs. Gen.	2	0	3	1	3	2	3½	2	4	2
5 Yrs. Spec.	½	0	2	½	2	1	2	1	2	1

Deduct 3 points for each year less than high school offered.

Combinations above equal 24.5 points.

If less than required number of years is offered deduct:

<u>Ia, II, IIa levels</u>	<u>III level</u>	<u>IV level</u>
3 points per yr. for gen.	3 points for gen.	3 points for gen.
3 points per yr. for spec.	4 points for spec.	12 points for spec.

For special experience in addition to required amount, add points according to attached chart.

Examination

IV I

2

1

.5

Allow above
requirement
Executive
Branch Ma
In addition
ing maximum

Figure 9 (continued)

Added Special Experience Chart

EMPLOYMENT SERVICE EXECUTIVE SERIES

Examination

IV	III	II - IIa	Ia	Class level of Experience
				IV Special
				IV Related Special
2				III Special
1				III Related Special
	2			II-IIa Special
.5	1.5			II-IIa Related Special
	1.5	2		Ia Special
			2	I Special Starting from zero toward Ia but <u>only</u> if minimum no. of yrs. required with par- ticular educational combi- nation is met.
		1	1	I Related Special Same as I Special
			.5	A Only for more than minimum numbers of years required with particular educational combination.

Allow above points per year for all experience above desirable requirements. Special experience equals Employment Service Executive Series. Relating special equals Employment and Claims Branch Manager, etc.

In adding additional points according to above chart, the following maximums apply:

High School or less	5
1 to 2 yrs. of gen. college	6
3, 4 or 5 yrs. of gen. coll.	7
3 yrs. special college	8.5
4 yrs. special college	9.5
5 yrs. special college	10.5

Level

Ia

II - IIa

III

IV

Figure 9 (continued)

Allowances for Minimum Requirements

EMPLOYMENT SERVICE EXECUTIVE SERIES

Level	General	Special
Ia	Responsible experience in employment or personnel office procedures equals "A" level or above in employment work.	None
II - IIa	Same as Ia	Experience in a supervisory capacity in employment or personnel office procedures equals Employment Service Executive Ia experience or equivalent in some other agency, which could be on the I level.
III	Experience in employee placement processes including registration, counseling, and selective placement, or employer contacts equals Employment Service Interviewer I experience or above.	Same as above
IV	Same as III	Procedures evaluation experience in employee placement processes equals Employment Service Executive III experience or above.

Figure 1

Examination

DESIRABLE

Employment

Experi
employ
selling
years
and gr
experi
and gr
public
vocati
(3) an
descri

Employment

Experi
ployme
admin
(2) f
shall
colle
vocat
or re
exper

Note: I

a
c

High Sch

1 Year

2 Years

3 Years

3 Years

4 Years

4 Years

5 Years

5 Years

Deduct

Combina

Figure 10. Tentative experience and training chart for screening purposes only for

EMPLOYMENT SERVICE EXECUTIVE V - VI

Examination Date: May 7, 1949

Weight: OC - PX - 100%

DESIRABLE QUALIFICATION REQUIREMENTS:

Employment Service Executive V

Experience and Training: (1) Eight years of experience in employee placement processes including registration, counseling and selective placement, and employer contacts, four years of which shall have involved procedures evaluation, and graduation from high school; or (2) four years of such experience, two years of which shall have been specialized, and graduation from an accredited college with courses in public or business administration, vocational rehabilitation, vocational education or guidance, or related fields; or (3) an equivalent combination of the experience and training described above.

Employment Service Executive VI

Experience and Training: (1) Ten years of experience in employment services, five years of which shall have been in an administrative capacity, and graduation from high school; or (2) five years of such experience, three years of which shall have been specialized, and graduation from an accredited college with courses in public or business administration, vocational rehabilitation, vocational education or guidance, or related fields; or (3) an equivalent combination of the experience and training described above.

Note: In order to receive a minimum rating of 70% on experience and training, candidates must possess the desirable qualifications listed above.

	V		VI	
	General	Specialized	General	Spec.
High School or Less	8	4	10	5
1 Year College	7	4	9	5
2 Years College	7	4	9	5
3 Years General College	6	4	8	5
3 Years Special College	5	3	6	4
4 Years General College	6	4	7	5
4 Years Special College	4	2	5	3
5 Years General College	5	4	6	4
5 Years Special College	3	2	4	2

Deduct 3 points for each year less than high school offered.
Combinations above equal 70 points.

Figure 10 (

Unless the
detest:

for specific
points ac

Examinat

VI

7

7

2

5

1

.5

Allow
requir

In add
follow

Figure 10 (continued)

If less than required number of years of experience is offered deduct:

General - 3 points per year
Specialized - 10 points per year

For special experience in addition to required amount, add points according to attached chart.

Added Special Experience Chart for
EMPLOYMENT SERVICE EXECUTIVE V - VI

Examination

VI	V	Class Level of Experience
7	7	VII Special
7	7	VI Special
2	3	VI Related Special
5	7	V Special
1	2	V Related Special
.5	5	IV Special
	1	IV Related Special
	.5	III Special

Allow above points per year for all experience above desirable requirements.

In adding additional points according to above chart, the following maximums apply:

High School or less	-	15
1 to 2 yrs. Gen. College		18
3-4-5 yrs. Gen. College		21
3 yrs. Spec. College	-	24
4 yrs. Spec. College	-	27
5 yrs. Spec. College	-	30

Level:

V	E
	=
	r
	s
	e
	p
	o

VI

Top Tra
Top Pro
Employ
Field
Employ
Distr
Employ

Figure 10 (continued)

Allowances for Minimum Requirements

EMPLOYMENT SERVICE EXECUTIVE V - VI

<u>Level</u>	<u>General</u>	<u>Special</u>
V	Experience in employee placement processes including registration counseling, and selective placement, or employer contacts equals Employment Service Interviewer I or above.	Procedures evaluation experience in employee placement processes equals Employment Service Executive III experience or above.
VI	Same as V.	Employment service experience in an administrative capacity equals Employment Service Executive IV experience or above.

Specific Examples

Top Training Officer	- OK, related special for V
Top Procedures Analyst	- OK, related special for V
Employment and Claims	- Related special - III for V - IV for VI
Field Supervisor	Related special - III for V - IV for VI
Employment and Claims	- Related special - III for V - IV for VI
District Manager	
Employment Security Exec.	- Related special - III for V - IV for VI

Examinat

RESPAL

(1) one
years of
plus one
tion fro
(2) seven
years of
or audit
senior e

Es
Less than

3 yrs. 0
4 yrs. 0
3 yrs. 8
4 yrs. 8

Deduct
For lac
Accor
poin
year

Candida
per yea
of time

Candida
receive

Figure 11. Experience and training chart for

INSURANCE EXAMINER IIIa

Examination Date: June 17, 1950

Weight: 20%

DESIRABLE QUALIFICATION REQUIREMENTS:

(1) one year of experience in accounting or auditing, plus two years of insurance company accounting, auditing or examining, plus one year of experience as a senior examiner: and graduation from an accredited college in business administration; or
 (2) seven years of experience in accounting or auditing, four years of which shall have involved insurance company accounting or auditing or examining, plus one year of experience as a senior examiner and graduation from high school.

Education	Acc't.	Insur. Acc't.	Senior Insur. Exam.	NOTE: All figures on chart additive.
Less than 10	3	7	4	
10	3	6	3	Insurance accounting may be substituted for general accounting only if <u>maximum</u> number of years allowed for insurance accounting is exceeded.
11	3	5	2	
12	3	4	1	
1	2½	4	1	
2	2	4	1	
3 yrs. Gen. College	1½	4	1	
4 yrs. Gen. College	1	4	1	
3 yrs. Spec. College	1	3	1	
4 yrs. Spec. College	1	2	1	

Deduct 5 points for each year less than 10th grade offered.

For lack of required experience deduct:

Accounting - .75 points per year; Insurance Accounting - 3 points per year; Senior Insurance Examiner - 10 points per year.

Candidates having additional experience are to have 1 point per year added for Senior Insurance Examining up to a maximum of three years.

Candidates meeting maximum experience allowances are to receive additional educational points for:

One and two years College	1 point
Three and four yrs. Gen. College	2 points
Three and four yrs. Spec. College	3 points

Figure

struction.

tion is ill

each grade

college.

tion a co

reduced f

The addre

shown by

ational

maximum

the cand

maximum

two year

Fi

2 and 3

for a 1

score,

grade

educat

favor

ments

of bu

of th

point

extre

Figure 3 (page 27) illustrates a different type of construction. In this chart an even further bias against education is illustrated. Separate charts have been made for each grade level from the eighth grade through two years of college. As each chart progresses up the ladder of education a corresponding number of years of experience is reduced from the amount necessary to obtain a maximum score. The added bias against education in this type of chart is shown by the fact that in Figure 2 a candidate with an educational attainment of the eighth grade could receive a maximum score of only thirty-three points, while in Figure 3 the candidate with an eighth grade education could receive a maximum score of forty points, the same as the candidate with two years of college.

Figure 4 (page 28) represents a combination of Figures 2 and 3 in that additional years of experience compensate for a lack of education and allow for a maximum attainable score, but only up to a certain limit, for below the tenth grade no absolute substitution of experience can be made for education. Figure 4 further illustrates an opposite bias in favor of education. In spite of the qualification requirements of one year of experience, a candidate with one year of business college and no experience receives 70 per cent of the education and experience allowance or twenty-eight points. This chart also illustrates a type employed where extremely large numbers of applicants are encountered. Only

one file

totally

score.

Fi

lack of

educati

points

between

attempt

didate

nine po

necessa

graduate

require

Fi

educatio

to educa

the refi

categori

tiation

in the c

related

the posi

with exp

tested f

good illu

ence in r

one figure need be noted to obtain the score rather than the totalling of a separate education and separate experience score.

Figure 5 (page 29) illustrates a quick drop away for a lack of education. A candidate lacking only two years of education with the necessary experience would receive eight points or forty per cent. Because of a careful balance between education and experience and the addition of an attempt at a qualitative rating, the maximum score the candidate with a tenth grade education could receive would be nine points, or forty-five per cent. This shows the balance necessary to allow for both the college and the high school graduate since the specification lists both as desirable requirements.

Figure 6 (page 30) illustrates a heavy bias in favor of education. Of the total sixty points, forty are allocated to education and only twenty to experience, thus explaining the refinement possible in rating education. Four different categories have been established which allow a fine differentiation between candidates. Another feature incorporated in the chart shows that while the specification lists many related types of experience which qualify an applicant for the position, the chart is constructed so that the person with experience of the specific nature of the position being tested for receives an advantage over the others. This is a good illustration of the effective use of quality of experience in rating education and experience.

Figure 7 (page 31) points out the relative simplicity that can sometimes be achieved when minimum requirements are employed. Since graduation from college was listed as a minimum requirement, the chart provides for no educational background with less than the full educational requirements; applications from candidates without such backgrounds are rejected. Figure 7 also shows just how far the examiner can go in biasing a chart toward education. Only three of forty points were allocated to experience, and it is debatable whether even those points should have been so used in the examination.

Figure 8 (page 32) is rather complicated and shows a triple bias toward the college trained individual. At the same time it allows the high school candidate a fair opportunity to compete in the examination. The sub-chart within Figure 8 represents the various combinations that will give seventy per cent or meet the desirable requirements. The person who has graduated from high school needs four years of office experience, one year of which shall have been of a responsible nature in the processing of, or payment of unemployment compensation claims. The person with two years of college needs only two years of the first type, or general, experience, one year of which must have been specific or specialized. And finally, this chart shows that the college person need have no experience whatever.

In
every c
this ba
at the
ments i
more, n
twenty-
year of
that a
experie
with el
but no
twenty-
year of
lack of
tion of
cialize
minus f

Th
is repr
quired
date ne
this de
trained
to the
priate

In using this type of chart the examiner begins by giving every candidate seventy per cent or twenty-eight points. From this base figure he then adds or subtracts points to arrive at the final score. Any candidate having exactly the requirements indicated above would receive twenty-eight points; no more, no less. The chart shows that to the base score of twenty-eight points, five points would be deducted for each year of school less than high school. It also points out that a lack of either the general or specialized types of experience causes points to be deducted. Thus, the candidate with eleven years of school, three years of general experience but no special experience would receive the base score of twenty-eight points minus five points for the lack of one year of school, plus the subtraction of four points for the lack of one year of general experience, and a further deduction of ten points for lacking the necessary year of specialized experience. His score, then, would be twenty-eight minus five, minus four, minus ten, or nine points.

The first bias in the chart toward the college candidate is represented by the heavy deduction for a lack of the required year of specialized experience. The college candidate needs no experience and is therefore not subjected to this deduction. The second bias in favor of the college trained candidate is shown in the paragraph adding two points to the twenty-eight point base to candidates with an appropriate major, and three points to candidates with an

appropria

this bias

requireme

preferabl

and publi

bias is s

amount of

Figur

similar t

dates whi

for purel

candidate

didates w

examining

percentag

On t

structed

difference

classes c

the figur

that equa

nations,

for exper

consider

quired ye

than in l

appropriate graduate school major but with no experience. This bias is justified by the statement in the desirable requirements, "graduation from an accredited college preferably with courses such as economics, labor relations and public unemployment insurance." The final education bias is shown by the lower chart setting limitations to the amount of additional points that can be obtained.

Figures 9 (pages 33-36) and 10 (pages 37-39) are very similar to Figure 8. Figure 9 was used to rate the candidates while Figure 10 illustrates how a chart may be used for purely screening purposes. It was employed to select candidates to appear for the oral examination. Once the candidates were chosen, the scores were given by the oral examining board, and these scores were then translated into percentages and used for the final ranking process.

On the second page of Figure 9 is a sub-chart constructed in the same manner as the one in Figure 8. The difference in appearance is caused by the large number of classes combined in the one chart. Again, as in Figure 8, the figures on the chart represent the various combinations that equal the desirable requirements. Any of these combinations, then, give seventy per cent of the weight allotted for experience and education for the particular class under consideration. The deduction factors for a lack of the required years of education or experience are quite different than in Figure 8. There is a difference of emphasis. A lack

of education assumes a lesser importance. Where five points were deducted from twenty-eight for each year less than the twelfth grade in Figure 8, only three points were deducted from 24.5 for the identical reason in this chart.

In the experience deduction factor, the same thinking holds. For a lack of the necessary experience, a lesser number of points was deducted than in Figure 8. This holds for all except the IV level where a basic change was effected in the type of experience needed. The thinking behind these deduction factors was based on the knowledge that practically all (if not all) of the positions would be filled from within the agency on a promotional basis. It was expected in constructing Figure 8, however, that all of the positions would be filled by new employees to the state service.

Page three of Figure 9 illustrates a definite attempt at a quality evaluation of the candidates beyond the seventy per cent figure. Page three also includes an added chart limiting the number of points that could be gained by the amount of education, the same type of device employed in Figure 8. However, it has since been modified because of criticism leveled by failing candidates. Page four of Figure 9 shows a concrete definition of the somewhat intangible description of the requirements listed on the announcement.

Figure 11 (page 40) represents current thought as of July, 1950. It can be easily seen that no two charts provide the same emphasis. Discussion is already evident in the agency to provide for alterations and modifications of the philosophy embodied in Figure 11. There has been no final answer to the problem of rating experience and education. A constant striving for improvement continues day by day.

At the end of Figure 11 a modification caused by criticism of Figure 9 can be seen. No longer is the total amount of experience points limited by the degree of education. All candidates can receive the same amount of experience points. However, in this chart, additional points can be gained by possession of college credits. The net effect of the alteration is the same. But the hope is to alleviate criticism aimed at the thought that additional years of experience are of no consequence without additional years of education.

The basic change in philosophy incorporated into Figure 11 was the theory that all candidates should have a conceivable opportunity of passing the examination in spite of their educational background. Constructing the chart of combinations which equal seventy per cent caused the education factor to drop to the tenth grade. This was a shift from previous charts where the twelfth grade was the base figure. This lowering of the base served two purposes:

first, it allowed candidates with lesser degrees of education an ample opportunity to compete in the examination, and second, it made possible the requirement of additional years of experience to such candidates. Thus, it can be seen that the candidate with a tenth grade education or less needs ten years of experience more than the candidate with four years of specialized college. Further, three of those extra years must have been of the highest type and quality of experience. In short, the object of the chart was to allow a conceivable opportunity for anyone to meet the requirements, but only with the addition of many years of compensating experience.

Appeals from Ratings

Education and experience ratings are subject to more controversy than any of the other devices employed in public personnel testing. Opinion as to the value of particular experiences is often subject to intense discussion and the question of whether a senior bookkeeper is doing work equivalent to a junior accountant illustrates this problem in a lucid manner. To the personnel examiner the bookkeeping experience has a different value than that of the junior accountant. However, to the senior bookkeeper, perhaps working side by side with the junior accountant, possibly doing identical work in the main, the fairness of the rating may be, and often is, sharply questioned.

Because of the need of depending on opinion in rating education and experience and the objectivity of most of the

other testing devices such as the written test, most of the appeal problems connected with the Employment Service Executive examination involved ratings of education and experience. Before discussing some of the specific appeals, some statistics will be presented concerning the results of the education and experience ratings. (See Table III, and Table IV, page 50.)

TABLE III

EMPLOYMENT SERVICE EXECUTIVE PROMOTIONAL EXAMINATION
EXPERIENCE AND TRAINING TABULATIONS

Passing Papers							
Level	E&T Wt.	No. Exam.	No. Re- ceiving Max.E&T	No.Rec. 31.5-35	No.Rec. 28-31.5	No.Rec. 24.5-28	No. Rec. Less Than Minimum
IA	35	235	9	58	131	13	33
II	35	206	3	34	86	21	65
IIA	35	150	3	29	72	19	30
III	35	138	4	31	75	18	14
IV	35	33	1	5	15	10	3
All Papers							
IA	35	266	9	58	132	13	63
II	35	276	3	34	86	21	135
IIA	35	245	3	29	72	19	125
III	35	227	4	31	75	18	103
IV	35	137	1	5	15	10	107

The problem of appeals in the Employment Service Executive examination was unique. Most candidates who appealed passed the examination and there were practically no protests from failing candidates. The reason for these appeals can be found in the background information of the examination. Most of

TABLE IV
EMPLOYMENT SERVICE EXECUTIVE OPEN COMPETITIVE
EXPERIENCE AND TRAINING TABULATIONS

Passing Candidates												
Level	E&T Wt.	No. Exam.	No. Rec. Max. on E&T	No. Rec. 55-60%	No. Rec. 50-55%	No. Rec. 45-50%	No. Rec. 42-45%	No. Rec. 40-45%	No. Rec. 38.5-40%	No. Rec. 35-40%	Less than Min.	
IA	50	174	8			39		89		6	40	
II	55	118	3		15	49		14	5		35	
IIA	55	98	3		14	44		12	2		26	
III	60	87	3	14	50	11	3				9	
IV	60	19	0	2	12	2	3				0	
All Papers												
IA	35	254	8			40		89		6	119	
II	55	224	3		15	50		16	7		136	
IIA	55	199	3		14	45		15	2		123	
III	60	173	3	14	50	12	4				93	
IV	60	108	0	2	12	2	4				88	

1

the applicants held only provisional or temporary appointments at their current level, their permanent status was one, two, or even three levels below their current rating. The appeals, then, were not an attempt to gain promotion, but a fight to retain the rank they held. To pass the examination and be subject to future appointment was of no interest to them. Actually the fact that they did pass and in effect were shown able to perform successfully made their readjustment even more bitter. Finally, demotion in the agency often meant moving from one city to another.

In any case, a combination of factors led a large number of passing candidates to protest their final ratings. Apparently they felt their best opportunity for success lay in the evaluation of education and experience and appeal after appeal was received directed to the education and experience rating.

To illustrate the type and temper of the appeals encountered, a number of them are presented below.²

Example 1:

"My experience with the Michigan Unemployment Compensation Commission, first as a Labor Supply Technician III, and later as a Personnel Methods Technician III should have been appropriate for specialized experience on the IV level examination; that is, procedures evaluation experience of employment service functions."

Example 2:

"It is my opinion that I was given insufficient points for my experience and training."

1

Example 3:

"I am basing this appeal on the over-all results of the examination, which appears to eliminate about ninety per cent of the incumbents in this (Detroit) area, and especially in the matter of the formula used to evaluate experience and training."

Example 4:

"I am protesting the evaluation of my experience. My contention is that during the period that I was classified as an Employment Service Executive I and as an Unemployment Claims Examiner A, I was, in fact, working as an Employment Service Executive Ia."

Example 5:

"I have received the ratings I obtained . . . and feel they are undoubtedly without prejudice and are reasonably accurate. However, since the evaluations on experience and training are apparently computed on some mathematical equation based on information furnished by the individual being rated, I feel that I have not been given full credit for experience as against others with far less experience in the classification."

Example 6:

"I am dissatisfied with the evaluation of my educational background."

Example 7:

"The examination announcement stated that any candidate should obtain a maximum of 35 per cent for experience and training. After the scoring, I am advised that the maximum in my case, because of the lack of college education was 29.5 per cent, and five years of my experience as an Executive I was entirely disregarded as a result of this method of scoring."

"Further, it sets up a discriminatory condition whereby one group of individuals are limited in the possibility of obtaining maximum scores and another group being favored in that respect. My contention is not to disregard or limit the credit for education, but to permit all experience to balance out any educational shortage."

Example 8:

"The undersigned are a representative group, authorized to speak for all persons in the Detroit area who wish to protest the evaluation of the recent Employment Service Executive examination. Authorization was given at a meeting held on March 18, 1950. The following was resolved:

"Whereas, on March 9, 1949, the State of Michigan Civil Service Commission announced a promotional examination for Employment Service Executive Ia, II, IIa, III, IV, V, and VI, and

"Whereas, on page 4 thereof they advise that in order to receive a minimum rating of 70% on experience and training, candidates must possess the desirable qualifications listed, and

"Whereas in evaluating experience and training they allow a maximum of 35% of which a person who has 11 years of experience with the agency, and meets the requirements of admission to the examination and who has graduated from High School, only 29.5% of this as credit to their final score, and

"Whereas, in evaluating experience and training they allow a maximum of 35% which a person who has 11 years of experience with the agency, and meets the requirements of admission to the examination and has in addition a college degree 33.5% to 35.0%, and

"Whereas, this inflicts a penalty on many of the employees of the Michigan Unemployment Compensation Commission by reducing their final score by failure to allow credit for supervisory and administrative experience in private employment.

"Now, therefore be it resolved that one full credit be given to offset college education for all years of service within the agency, especially within a supervisory capacity."

Each appeal had to be answered individually. In the main, the appeals fell into two groups. The first consisted of those who felt that their experience was not given a proper evaluation. In some cases they felt that the content of their

jobs had been misinterpreted and in other cases they felt their agency experience had been wrongly evaluated by an insistence on rating according to the job classification they held. They insisted that, in many cases, they were doing work outside of the classification they held. The second group consisted of those candidates who, lacking a college education, questioned the validity of the education and experience rating chart.

The paragraphs below contain the essence of the answer given to the applicants questioning the validity of the experience and education chart.

"It was the feeling of the examination section that only the best qualifications in all respects should receive as much as 100%. Others, who otherwise met the requirements, should receive scores somewhere between 70% and 100%. Obviously, on a ranking basis, only a very few could possibly hope to reach 100%.

Experience and training consists of two factors: Education and experience. Therefore, in constructing a rating chart to rank employees who have more than the desired requirements it is felt that both factors have to be taken into consideration. Thus, the chart provides that additional years of experience by itself would not rank a person at 100%. Nor would additional years of education by itself rank a person at 100%. To receive a top rank each candidate would have to possess education and experience in addition to the required basic amounts." 3

Appendix "A" (memo of 4/21/50) illustrates a comprehensive and effective answer to many of the appeals.

Those persons who protested on the basis of their having worked out of classification received little attention. Any department head, line supervisor, or employee can request of

the Civil Service Commission a re-evaluation of a job. In all cases brought before the review board no prior notice had been given to the Civil Service Commission of any supposed error in classification.

In actual practice, both the Civil Service Hearing Board made up of men from without the agency, and the Civil Service Commission itself, to which appeals from the Hearing Board are submitted, have all too often reversed the decisions of the technical staff. In the present situation, however, solid backing was received and all appeals concerning basic policy were ultimately unsuccessful.

-
1. Seventy per cent is an arbitrary figure used by most jurisdictions including Michigan to represent a passing grade. If some other figure such as fifty or eighty represented passing, then passing on the education and experience chart would represent one of those figures. While the above practice is widespread, it is not universal. For example, the Detroit Civil Service Commission uses minimum requirements on all examinations. However, they interpret minimum as equaling only 65% where 70% is passing. Thus, a person who met the basic required education and experience requirements in Detroit would receive only 65% of the assigned weight for that part of the examination and would have to compensate by attaining more than 70% of the other parts of the examination to receive a final passing grade. If, however, the candidate did not meet the minimum requirements, he would be rejected from the examination.
 2. All of the illustrations were taken from confidential transcripts of Michigan Civil Service Appeal Board proceedings.
 3. Taken from a sampling of cases prepared for the Michigan Civil Service Hearing Board.

CHAPTER VI

THE WRITTEN TEST

Early Testing Procedure

Present day civil service examinations reflect examinations given in the school system. In England, the first attempt at filling positions through tests was in the higher professional and technical classes. Since most of the professional personnel were recruited from students at select colleges, it was normal to test the applicants for what they learned in school. Consequently, broad examinations were utilized in England, first for the higher level positions and then later in a somewhat modified form for the clerical positions. It can readily be seen that examinations developed to test for the professional and technical classes would not necessarily be useful in testing for clerical positions. Fortunately, tests of knowledge have been found to have a significant correlation with intelligence. Further, it has since been discovered that the correlation between intelligence and clerical aptitude is in the neighborhood of ¹.80.

As a result of the chance relationship, early civil service written tests were fairly successful in predicting later success on the job, but the procedure was not of much value when extended to the mechanical and administrative positions.

Since the early development of written tests much research has been conducted by the psychologists. They have demonstrated that individual differences have considerable influence on occupational attainment. It has been shown that there is a best combination of knowledges, abilities, and other traits for any one job, so the work of the civil service agency, as well as personnel offices of private industry is to find the peculiar combination of traits required² and to validly test for them.

Bases for the Written Test

Job analysis is performed by the classification staffs³ in the larger public personnel agencies. In the smaller jurisdictions, civil service technicians perform the functions of classifier and then later the function of examiner⁴ or test constructor. Because of the extremely close relationship, some agencies have attempted to coordinate the knowledges obtained by other combinations of job duties. In the Detroit Civil Service Commission, a deliberate policy has been followed of transferring technicians for extended periods of time back and forth between the classification and examination sections. In the Michigan State Civil Service Commission, examiners accompany classifiers on audits of positions they will later examine.

The job analysis results in the preparation of a formal class specification which lists, among other things, the

knowledges and abilities required for minimum acceptable work performance. The class specification also includes a list of typical duties and assignments as well as a list of the more common aptitudes required for satisfactory performance on the job. They are not meant to be an inclusive list, nor are they usually listed in order of importance. They are merely samples of what can generally be expected of the employee on the job. The examiner's problem is to study carefully the knowledges and abilities, analyze the education and experience section of the class specification, carefully review the list of typical duties, and from an analysis of the various parts of the class specification, develop an outline of the topics to be used in the examination. For example, a statement in the class specification such as "above average intelligence" justifies the use of an intelligence examination. The statements "ability to get along well with others" or "meets the public . . .," make feasible the use of a personality test. A final example will amply illustrate the freedom given the examiner in constructing examinations even though he is subject to justifying each individual section. A statement such as "graduation from college with major course of study in business administration" would be sufficient reason for the inclusion of any subject apt to be taken by the business administration major, such as accounting, economics, or mathematics. Each section used in an examination demands justification from the class

specification, but it can be written to give the examiner a broad area in which to test.

In constructing a written test, one starts with the development of the outline. The outline used for the Employment Service Executive Series is illustrated in Figure 12.

Section Number	Section Headings	No. Items	Weight
1	Interviewing	35	1
2	Vocational Guidance	65	1
3	Occupations	65	1
	Total - Ia	165	
4	General Personnel Management	30	1
5	Job Analysis	30	1
6	Labor Relations	20	1
	Total - II, IIa	245	
7	Placement Services	35	2
8	Office Practices, Procedures, and Techniques	10	1
	Total - III		
9	Business Information	55	2
10	Management Practices	10	1
	Total IV	355	

Figure 12. Examination outline for the Employment Service Executive Ia-II-IIa-III-IV.

Types of Items

After the outline is prepared listing the sections to be used, the next problem is the securing of individual items. Most items are written by the examiner using as source material reliable and standard books in the field. As the items are constructed they are fully documented like the sample item card shown in Figure 13 (page 60).

In a geographical filing system, material to be filed is first classified according to the name of the state.	
True	
Doris and Miller Complete Secretary's Handbook p. 25	N.B. <u>2-50</u>

Figure 13. Sample examination item source card.

Because of the need of highly reliable test items that can be easily and quickly scored, written test items in civil service examinations have tended to be of the objective type. Essay items tend to be used only where insufficient material exists to properly prepare items in objective form. Hard work and sufficient preparation can usually translate a good essay section into a group of the objective type of questions covering the same material.

The following kind of items are most often used in civil service examining:

1. Completion.
2. Multiple-Choice.
3. True-False.
 - (A) Yes-No.
 - (B) Correct-Incorrect

Completion Items

Completion items are most closely related to the essay form. This kind of item offers an incomplete statement and the candidate must complete it either with a word or two, or

a short phrase. Examples are listed below:

Example: The chemical formula for water is: Ex. _____

Example: A circular chart having segments
representing various percentages
of the whole is known as a: Ex. _____

The answer to the first example is "H₂O" and the answer to the second is "pie chart." The completion item is also called a "recall item." These questions must be answered through direct recall of the specific knowledge required. They present to a great degree some of the problems found in using the essay type item.

In most cases, no matter how carefully the examiner may prepare the item, more than one correct answer may be found. The most common variant will be a shift in the tense or degree of the answer. The answer to a question may be "race," but the candidate may say "racing," or "raced." Depending on the group being examined, all of the answers listed above could be considered correct. In actual practice, the most desirable method of scoring completion items is to keep a tabulation of all answers submitted, with the examiner indicating which choices are to be scored correct. This tabulation can be built up from examination to examination until a point is reached where only occasionally will the examiner have to decide whether new alternatives are acceptable. In large agencies that utilize test-scoring clerks, the procedure can be developed so that the test checker need bring only new answers to the examiner. However, even with an efficient

set-up a great deal of time must be spent by the examiner in scoring completion items. Also, with more than one possible answer, the problem always exists of accuracy of the scoring key.

Multiple-Choice Items

To get around just such problems as those listed previously, but to retain the best elements of the completion item, the multiple-choice item has become more common.

Example: The capital city of the State of Michigan is:

- (A) Detroit.
- (B) Grand Rapids.
- (C) Lansing.
- (D) Flint.
- (E) Kalamazoo.

The answer to the above item is Lansing. In this type of item, the candidate must show recognition of the correct answer rather than recall it. There are major advantages in employing the multiple-choice questions. The foremost advantage is the ease of scoring. Multiple-choice items can have but one correct answer and the candidate must choose from one of the choices listed. The examiner can reduce the entire scoring operation to a clerical procedure. No technical knowledge of the subject is required. Given a scoring key the test scorer can rapidly and accurately score examination after examination.

The multiple-choice type of item as well as the true-false, to be discussed later, lend themselves to the use of answer sheets and mechanical scoring. The most widely known mechanically scoring device is the IBM scoring machine, which makes use of the recording of electrical impulses. These impulses are produced in the following manner: the candidate uses a soft lead pencil to mark his answers in predetermined locations on the answer sheet. Usually he must blacken in one of a series of pairs of lines such as those illustrated below:

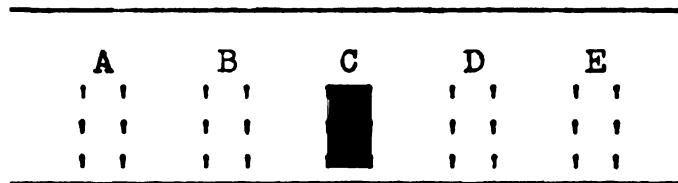


Figure 14. IBM answer sheet marking procedure.

The answer to the sample Multiple-Choice item shown previously would have been choice (C) Lansing. The candidate would therefore blacken the (C) choice. The answer sheets are placed in the IBM machine where electrical contact is made. Disadvantages in using IBM scoring machines, however, have kept many jurisdictions from adopting them. The major consideration that discourages all but the largest jurisdictions from utilizing these machines is the cost involved. Another consideration is inaccuracy caused by the lack of electrical contact in the machine when candidates do not press hard enough with their pencils while recording their answers. Inaccuracy is also caused by the machine picking up sweat

marks and dust particles. However, the largest cause of error is the sensitivity of the machine to atmospheric conditions. Under humid temperatures the machine will simply not score accurately. Finally, the problem and expense of re-wiring the machine for each different answer sheet precludes its use on all but the largest examinations.

The Michigan Civil Service Commission makes use of semi-mechanical scoring, but without the use of the IBM scoring machine. Michigan prints the answers on the answer sheet after the candidate has marked his answers. The test scorer then compares answer and key to score the examination. Note the illustration shown below:

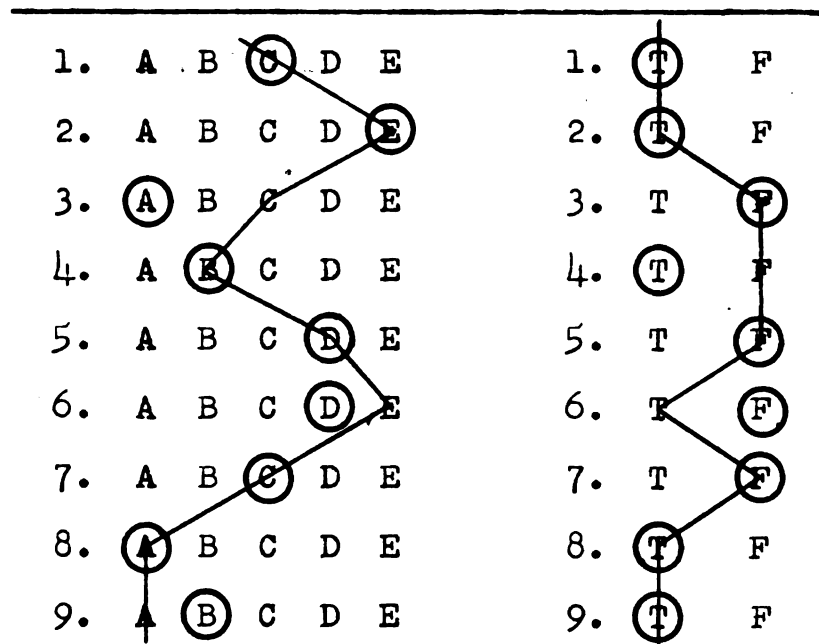


Figure 15. Michigan Civil Service answer sheet scoring method.

Under this system an answer stencil is typed and the answer sheet is re-run with the key being super-imposed on each candidate's paper. Most of the disadvantages of the IBM

scoring machine are overcome. The cost is low and the answers are always legible. Besides it is adaptable to much smaller examinations volume-wise than is the IBM system. Also, it has some distinct advantages of its own. The candidate can see the answer key super-imposed on his own answer sheet when reviewing his examination. That is not possible when the IBM scoring machine is used. The major advantage is the ability to tailor make the answer sheet. In the illustration shown above, multiple-choice items are interspersed with true-false items. Using the IBM scoring machine confines the examiner to a number of pre-set patterns unless expensive individual effort is expended.

Multiple-choice items can be constructed with any number of possible choices, though usually from three to seven choices are found. Probably four or five choices are the most common.⁵ The greatest difficulty in constructing multiple-choice items is the employment of suitable distractors. If a four choice item is constructed and only two of the choices are obvious, then the candidate is actually confronted with the equivalent of a true-false situation. He can take one of the two remaining choices and by answering it true or false decide on the answer to the multiple-choice item. The difficulty of constructing multiple-choice items with satisfactory distractors causes sufficient concern to seriously question their use in any, but very carefully constructed and validated sections. The above statement is made

in the face of a strong and marked trend toward the use of multiple-choice items almost to the exclusion of other types. It is felt that a weak multiple-choice item is less desirable than a weak true-false item. A true-false question employs penalties to account for guessing, but a multiple-choice item usually presupposes enough choices to offset the guessing factor and consequently no consideration is usually given to it. In tabulating scores of material used in Michigan of apparently the same difficulty and covering the same subjects, results have been consistently higher on multiple-choice items than on true-false. Multiple-choice presents problems in construction because a much greater knowledge is required of the field under consideration.

A multiple-choice item is made up of a premise and the alternative answers. The information the candidate needs in order to answer the question should be set in the premise. When the applicant has read the premise, he should know the general type of answer for which he is to search among the various choices.

Many examiners prefer an indicative form of the premise to an interrogative form. In the treatment of incomplete answers, however, it is frequently difficult to set up a premise except in the interrogative form. Attempts to construct all multiple-choice items in the indicative form are apt to result in cases of stilted expressions or expressions that will not constitute a grammatically accurate sentence when coupled with the expected correct answer.

Some writers like to compose items that require a competitor to find something that is not a reason or to find a practice or principle that is not a good practice or principle. Although it is not being suggested that all items should be positive statements, it is believed that this should apply to the great majority. This is because a negative item among a group of positive items tends to act as an irritant to the candidate.

In developing the correct choice, the examiner must make it long enough to formulate adequately the expected responses, but it should not be unnecessarily so. The examiner must bear in mind that if the correct choice is long then the incorrect choices should also be long, and that as the correct answer becomes longer and longer he can less and less readily build up each incorrect choice to the same length. Many item writers tend to protect the correct answer by adding so many qualifying phrases that they cannot hope to develop their incorrect choices to the same degree of complexity and length. Candidates have occasionally been able to obtain good scores merely by marking as correct the longest of the possible choices. The item as a whole should be so constructed that no one is able to ignore the premise and to select the expected answer by the way it is worded. The writer should also attempt to avoid the "nice" type of item in which the differentiation between the expected answer and the incorrect choices can be made entirely on the basis of the expected

answer containing many "nice" words, while the incorrect answers contain only "bad" words. An incorrect choice obviously so absurd in relation to the premise that no candidate will consider it is an absolute waste from an examination point of view. An efficient incorrect choice is one that has pulling power for the poorer qualified candidates. In developing items as a whole, the examiner should attempt to construct correct and incorrect alternatives so that the better qualified candidates choose the expected answers as a result of superior insight. The incorrect choices should be so stated that in selecting one of them the less qualified candidates can demonstrate that, because of this lack of insight, they think and react differently from those persons better qualified. The attraction of the incorrect answers for the less qualified candidates should be that these incorrect alternatives are statements of the same kinds of incorrect concepts, illogical conclusions, and generally erroneous ideas that they tend to hold. Perhaps the greatest difficulty in constructing incorrect answers is to have choices that appear plausible to the less qualified candidate, but not so plausible that they are chosen by the better applicants.⁷

One final word of advice should be given to the apprentice item writer. Experiments have shown that even well constructed items must be placed in a certain order to be most effective. It has been found that among candidates who

have no knowledge of the answer in a five choice item the first choice is the one most often guessed. This is followed by the fifth choice and then by the third, fourth and finally the second choice.

True-False Items

The true-false item is the final type that will be discussed in detail in this paper. Other items such as matching questions are sometimes used, but, in the main, the items described in this paper contribute the major portion to written civil service tests. As in the completion item, the use of appropriate wording can become the difference between a good true-false question and a poor one. True-false items, more than other types must be pointed closely to particular examinations. For many positions only a small amount of education is required; for others, college or more is needed. An item that is appropriate for one group is not necessarily satisfactory to the other. For example, the following item is apt to be answered differently by various groups:

"Water freezes at 32°."

To the average person this would be a true statement. To students of high school chemistry or physics a query would be raised as to whether Fahrenheit or Centigrade scale is referred to. Adding the symbol "F", the average person familiar with high school chemistry or physics would consider the item true; however, to the physicist, the expert in this field, this statement would be unqualifiedly false even if

the symbol "F" were added. In the first place water does not freeze at 32°, but begins to freeze at that temperature and then only when certain conditions are present as purity of water, atmospheric pressure at sea level, etc. This illustrates the point that not only must language be used suitable to the occupational group to be tested, but that suitable qualifying statements must be included in the items depending on the knowledge of the group.⁹

The true-false item may be used in testing the applicant's knowledge of a concept, fact, principle, reason, inference, meaning application, etc. A series of principles can be expounded concerning the construction of true-false items. These are listed below:

1. There should be no ambiguity.
2. Each word should be commonly understood.
3. The statements should not be excessively long.
4. Such words as "no," "not," "always," and "never" should be avoided insofar as is possible.
5. Questions with obvious answers should not be used.
6. Do not include items which may be partly true and partly false.
7. Questions which express opinionated views, without giving the source, should also be avoided.

The true-false item is used in several modified forms. Note the two examples.

Diseases that may be transmitted by water are:

1-1-1

- | | | |
|------------------|---|---|
| 1. Typhoid Fever | T | F |
| 2. Diphtheria | T | F |
| 3. Diarrhea | T | F |
| 4. Cholera | T | F |
| 5. Tuberculosis | T | F |

This type of item is particularly adaptable to testing the applicant's knowledge of several facts all of which have something in common.

A certain office has a mailing list which now contains about 1000 names. An average of 60 new names are added each week. An average of 20 of the old names are discarded each week. The names to be added and removed from the mailing list come to the senior clerk who has charge of the list partly on typed sheets of paper containing from 3 to 30 names and partly on carbon copies of letters.

- | | | |
|--|---|---|
| 1. Cards are superior to loose leaf books for keeping such a list. | T | F |
| 2. To prevent the loss of some names, the list should be kept in a bound book with all names beginning with the same letter on one or two pages. | T | F |

This type of item is adaptable to testing the applicant's judgment in a given situation, or his interpretation of case histories, experiments, etc. This form of test should include 5 to 15 questions on each situation, case history, or experiment.

Sources of Items

Item construction is one of the most difficult and time consuming factors in civil service examining. Fortunately, sources are available on which the test constructor can rely to supplement his own efforts in this field. Supplementary sources become an indispensable factor in the smaller agency, where it is physically impossible to construct all the necessary items.

The Michigan Civil Service Commission makes use of the Federal Security Administration test service for items in certain fields. Wherever the federal government grants monetary aid for personnel services to state governments, it demands that those governments employ that help on the basis of merit examinations. Since many states do not have existing merit agencies, the federal government has aided the organization of Merit System Councils. These councils are then provided with examination material by the test service of the Federal Security Administration. States with existing civil service commissions, however, are also given the benefit of the work produced by this agency. The Michigan Civil Service Commission makes use of examination material prepared by the Federal test service in areas such as Social Work and Employment Security.

Perhaps the single most useful source of examination material is the Civil Service Assembly of the United States and Canada. This professional organization of public

11

personnel administration maintains a test exchange service for the use of its members. All members send copies of their examinations to the Assembly and in return borrow examination material sent by other agencies.

Civil service agencies, including Michigan, make use of city and state agencies. Experts in various fields are available and their aid is utilized in constructing examination items. Colleges are another source of which civil service agencies make a great deal of use. Classroom examinations are often obtained and with very little adaptation can be fitted into examinations. In many other cases, very generous cooperation is obtained from specialists in certain areas who will give freely of their time and construct items for civil service agencies. These items can usually be used with very little editing. Finally, many, if not all, civil service agencies maintain item card files in which they file items concerning most of the fields in which they must prepare examinations. At the present time the Michigan card file consists of more than 100,000 items. These items range over most any topic conceivable from "Ability to Get Along with Others" to "Zoology."

Examination items are reviewed after construction by subject matter experts. Since, in spite of the sources available, a majority of examination items are written by the specialist in test construction rather than the subject matter specialist, it usually is advisable to have the questions

reviewed for adequacy, and correctness. A further review is usually made in Michigan by the supervisors of the departmental personnel involved. This review is to check not so much for accuracy as for pertinancy for the job.

Time Allowances

After the examination items are compiled and reviewed, they are assembled into subject matter sections although some agencies do not attempt to do this. The sections to be employed had been decided earlier, of course, when reviewing the class specification knowledges and abilities. Sections are then assigned time allowances. As in many other areas of civil service administration, the setting of the time allowance may depend on the general policy of the agency. In Michigan time allowances are generally nine minutes for 25 true-false items and a minute for each multiple-choice item. These times are considered sufficient for all but the very slowest. This policy is deliberate and is aimed at keeping at a minimum criticism of the agency. Detroit Civil Service, on the other hand, because of its longer period of existence and consequent greater acceptability, follows a policy of timing sections so that only those who know the area will finish within the allotted time. With true-false items, for example, their time allowance is 25 in six minutes or one-third faster than in Michigan. The time allowance for multiple-choice is correspondingly faster in Detroit.

Weighting the Parts of the Test .

After sections have been organized and time allowances set, the examiner must then "weight" the various sections. Weighting involves the determining of the relative weight or importance of each section of the examination in relation to all other sections. Thus, if an examination was prepared for Senior Personnel Technician, the following sections might be used.

1. Intelligence Test
2. General Background
3. Personnel Techniques

The problem for the examiner would be to determine (guess) of what importance each of the sections is to the total test. (See previously displayed copy of Employment Service Executive examination which includes weighting of the various sections.) Weighting is one of the vital devices employed by the test technician. By proper weighting, sections can be assured of their proper importance. This follows both for the sections that are well constructed and pertinent and for the sections that are weakly constructed and test only fringe knowledge. A section of the latter kind can be assigned a low weight by the trained examiner and can be put into examinations because it is expected and lends face validity. Yet the examiner can, at the same time, by an adjustment of the weight, negate the value of the section in terms of really contributing to a passing score.

Weighting is by far one of the most useful and important appliances utilized in test construction. It is in this aspect of the examination that it is most important for the test constructor to know intimately the duties and functions of the job for which he is preparing an examination.

Statistical Procedure

After an examination is carefully prepared, assembled, and administered much paper work still remains; first, the examination must be scored. Earlier in the paper scoring methods were described; however, the actual scoring for right and wrong answers is only part of the task, as a great deal of statistical tabulation and analysis still remains. The specific statistical techniques vary slightly from agency to agency. Some omit various parts; others, with the time and money required, spend time experimenting with and analyzing results.

In Michigan, the following statistical methods are employed as routine on all examinations. Each individual section is tabulated according to the number of candidates that receive varying numbers of right answers. High, low, medium and quartile scores as well as an effective range is then computed so that from the statistics obtained, comparison can be made from section to section.

A large number of agencies, at this point in the process, determine the standard deviation of the various sections for

comparison purposes. Michigan, however, has adopted a procedure developed by the Detroit Civil Service Commission which is shorter and easier to compute and produces substantially the same result. The basic problem, whether using the standard deviation method or the one to be described in this paper, is to make sections count that part of the examination that they were intended to do. The most simple illustration of the problem under consideration would be a free answer examination consisting of two questions, one of which the test constructor feels is worth twice as much as the other. The problem is how to treat scores so that the ratings on one question will have twice the final effect (have double the weight) on the total rating as the other. The examiner may approach this problem from several different paths. He may rate both questions on a basis of 100; then multiply one rating by two and combine the scores or he may allow only 66 2/3% for one question and 33 1/3% for the other. However, it is an accepted fact in statistics that the distribution of scores affect the weights assigned. Notice the hypothetical scores shown in Table V.

TABLE V
RESULTS OF POOR SECTION WEIGHTING TECHNIQUE

Paper	Question 1	Times 2	Question 2	Total
1	100	200	60	260
2	98	196	70	265
3	96	192	80	272
4	94	188	90	278
5	92	184	100	284

Thus, the total score is largely determined by the scores on the second question. This is because the second question shows a range of scores 5 times the range of the unweighted scores on the first question and $2\frac{1}{2}$ times the range of the weighted scores.¹¹

"Statistical research has shown that the standard deviation is more truly representative of the form and shape of a distribution than is any other single statistical measure."¹² However, Detroit has developed and Michigan is using, with a slight modification, a substitute method of producing the same results. An illustration will show the relationship that exists between the results obtained employing the method described in Appendix C and the standard deviation method. (See Table VI, page 79). The similarity between the multiplying factors derived using an average of the Effective Range Method and the Inter-quartile Range Method and the Standard Deviation Method can be seen by studying Table VI. Detroit has found that, "if the total weighted scores of a test battery for a group should be computed by these two methods and the results correlated, correlations of from .96 to .99 would be secured."¹³

Whatever the method employed, whether standard deviation or some other accepted method, the multiplying factor that is derived is multiplied by the raw score of the section to obtain the weighted score. The weighted section scores are

TABLE VI
VARIOUS METHODS USED TO DERIVE
MULTIPLYING FACTORS

Test Section	Relative Weight	Multiply- ing fac- tor de- rived us- ing the Effective Range Method	Multiply- ing factor derived using the Inter- Quartile Range Method	Multiplying factor de- rived using an average of the effec- tive Range & Inter-Quartile Range Methods	Multiply- ing factor derived using the Standard Deviation Method
1	3	.68	.59	.64	.68
2	1	1.00	1.00	1.00	1.00
3	1	.25	.18	.22	.20
4	2	1.70	1.60	1.65	1.66
5	1	.13	.11	.12	.11
6	1	.73	.73	.73	.83
7	12	1.10	1.15	1.13	1.08

added to derive the total weighted score for the examination, these scores are tabulated, and the examiner is then ready to set a passing point for the examination

Setting the Passing Point

A passing point for a more or less unstandardized civil service test is a difficult problem to solve. There are several methods employed. One of the first decisions to be made is whether or not it is desirable to pass a large number of candidates. Most agencies determine the answer to this on a policy basis. The agency may commit itself to a policy of passing just enough to fill the existing vacancies or it can adopt a policy of passing most candidates, making

the assumption that most of them will never receive appointments, but having passed the examination, they will harbor less resentment against the agency. It is an unanswered question whether more ill will is produced by passing a candidate who will never receive an appointment or by failing him. In either case, the civil service agency can expect some degree of bad feeling as a result of the examination process.

Passing points are sometimes set on the basis of breaks in the final tabulations. That is, a tabulation is made of all the final total weighted scores. A typical tabulation of 175 candidates might look like the one produced in Figure 16.

Class Interval	Number of Cases
96 - 100	
91 - 95	1
86 - 90	111
81 - 85	1111 11
76 - 80	1111 111
71 - 75	1111 1111
66 - 70	1111 1111 1111
61 - 65	
56 - 60	
51 - 55	1111 1111 1111 1111 1111 1111 1111
46 - 50	1111 1111 1111 1111 1111 1111
41 - 45	1111 1111 1111 1111
36 - 40	1111 1111 1111 11
31 - 35	1111 1111 1111
26 - 30	1111 1
21 - 25	1111
16 - 20	11
11 - 15	1
6 - 10	
1 - 5	1
0 -	

Figure 16. Tabulation of hypothetical total weighted scores.

A quick glance shows a significant break in the scores at the 66 to 70 group. It can be deduced that the 44 candidates with scores of 66 or better show a distinct and definite edge in knowledge over the balance of the group. From the picture given by the tabulation one can guess that the average candidates will cluster together at scores below 55, while superior candidates will achieve scores of at least 66. In setting a passing point based upon a break in the tabulation, a score of 66 would be set. Setting a passing point upon this basis ignores several factors that may or may not be important.

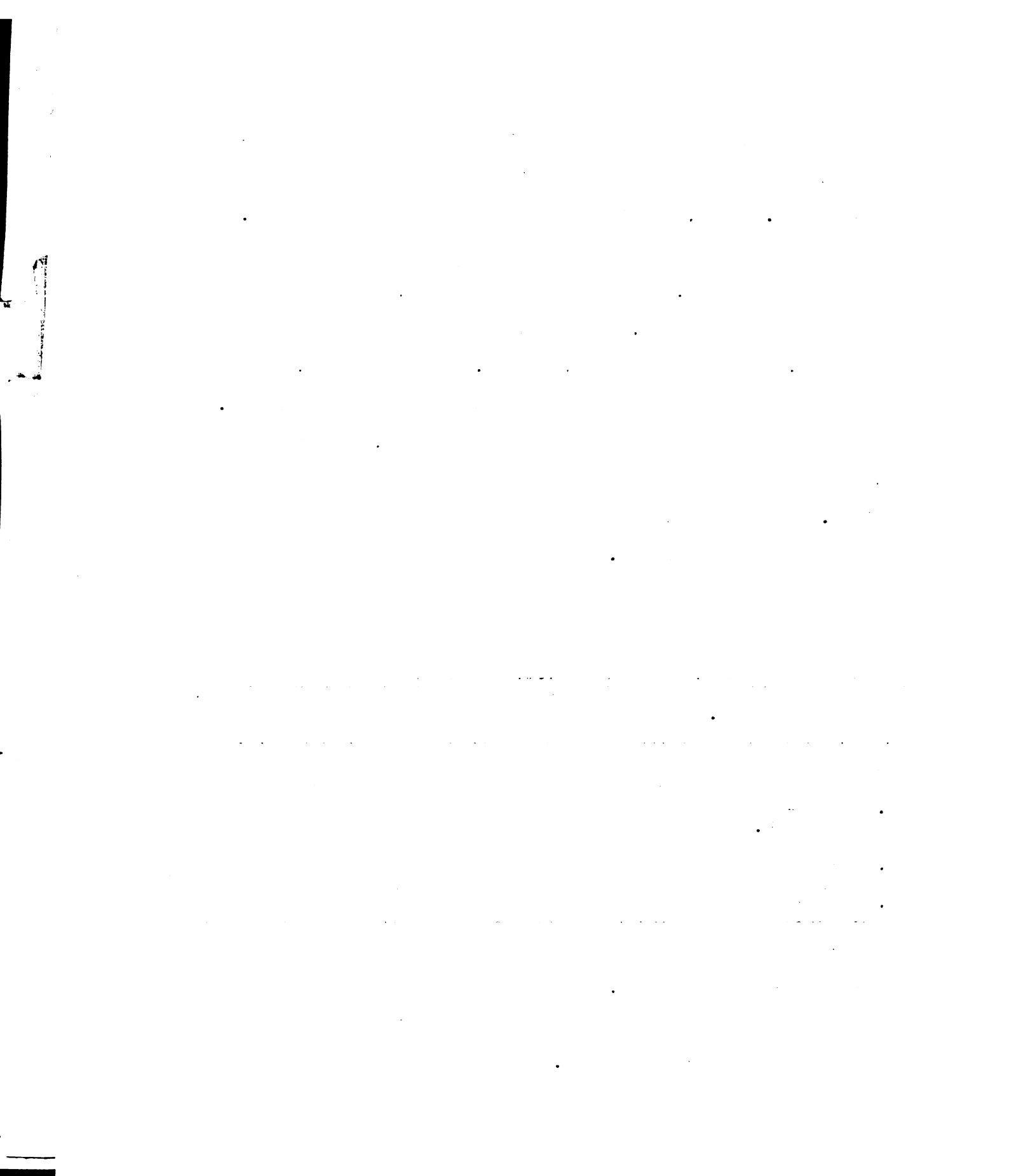
One of the factors not considered was the number of jobs to be filled. Given a situation where only two positions were vacant, passing all 44 of the candidates in the upper group would indicate a policy of passing more candidates than can possibly be appointed. On the other hand if 60 or 70 positions were to be filled, the question of provisional appointments would have to be met. To fill all vacancies the passing point should be set at 46 or 51,¹⁴ but would this pass unqualified persons? Since most agencies are working with more or less unstandardized tests, it is very difficult for them to answer this question. A great deal depends on whether the group in question is above average, average, or below average. The same problems exist if passing points are fixed on the basis of a set percentage of the candidates. Many jurisdictions decide beforehand, as a matter of general policy to pass perhaps 25% or maybe 50% of those competing.

Some agencies have attacked this problem by standardizing sections, even though the examinations as a whole are not standardized. Thus, Michigan maintains a section card file. Information listed includes: the examination in which it has been previously used, the level of the groups, the number of candidates in the groups, the highest scores achieved by each group, the third quartile, median, first quartile, and lowest scores, as well as the effective ranges for the groups. From the information listed on the section card, the examiner can estimate what scores the new groups should probably achieve. For example, a section entitled English Usage might show the following results.

TABLE VII
ENGLISH USAGE SECTION STATISTICS

Exam Use	No. Cases	High Score	Third Quartile Score	Median Score	First Quartile Score	Low Score	Effective Range
Personnel							
Technician	225	24	19	15	10	2	23
Sr. Administrative Asst.	115	24	22	17	13	2	23
Social Worker	300	25	18	14	8	2	24
Sr. Social Worker	85	25	23	18	14	4	22
Sr. Librarian	100	25	23	17	14	3	23

From inspecting Table VII the examiner can ascertain what to expect from a new group. Apparently those persons who reach the senior level score three or four points better than candidates for induction levels. The examiner can then decide



that if the class under consideration is a senior level that the successful candidate should get twenty-three or seventeen depending on what percentage of the group it is desirable to pass. This figure of twenty-three, for example, can be multiplied by the multiplying factor for that section in the examination under consideration, and a passing score for that section established. This procedure may be followed for every section with the passing point becoming the total of the passing points of each of the sections. This procedure guarantees a maintenance of minimum standards even when the examination itself is not standardized. The procedure could tell us that in the tabulation listed previously it might have been possible to lower the passing point to 45 or 50 to allow for a large number of job vacancies. This could have been done if the total of the section passing points fell at 45 or less since it would tell the examiner that the group under consideration was above average. On the other hand, if the total of the section passing points was 65 or 75, it would indicate that under no conditions should the passing point be dropped to 45 or 50--perhaps it should even be raised to 65 or 75.

After a passing point has been set it is necessary to convert the weighted scores into percentage scores. The number of weighted points fixed as the passing point become 70% of the percentage points allowed for the written test.¹⁵ The most common procedure is then to subjectively guess on

the basis of past performance or the performance of similar groups the highest and lowest percentages to be granted. It is then a simple matter to fit the intermediate scores into intermediate percentages. It can and probably is usually done on a straight line basis. If more refinement in technique is desired, the percentage scores may be so scaled that under any part of the total scores would exist the same percentage of cases as would be found under a normal distribution curve. A refinement to this degree, however, is hardly worth the effort.

Test Analysis

No report on the preparation of civil service examinations would be complete without some reference to an analysis of test results. While thorough and extensive analysis of test material is an impossible task for the small agency and only a possibility for the larger agency, each office should attempt to do everything possible within its budgetary position to improve examination techniques and material.

[Item analysis studies and validity studies are the two best known statistical devices employed in improving an examination program. But even here, a word of caution must be used. Validity studies, in spite of the demand for them are almost non-existent in civil service testing.] To explain this one must understand the basic difference between more or less unstandardized civil service examinations and the well

standardized test developed by the psychologist to test for a specific interest, ability, or other function. The psychologist can take a set number of items and try them out again and again. He can shuffle, change, revise. He can set up very exact control situations. And finally, he can obtain thousands and even millions of cases to document his studies. His end product after an enormous amount of effort is usually a near perfect instrument that can be utilized for a specific purpose.

Almost none of the conditions described above exist in civil service testing. Groups cannot be controlled. Extensive numbers of candidates are not always available. Criteria is most difficult to obtain. And finally, the basic requirement for a validity study cannot be fulfilled in civil service testing. That is the employment of a control group, some of whom do well on a test and some of whom do not do well. Civil Service must employ only those candidates who do well on a test constructed for the job in question.

[Consequently, in spite of repeated criticism of civil service agencies for their apparent apathy in failing to validate their work, not much will be found along this line among them, either now or in the near future.] However, there does remain an area in which they work toward improving their test material. Improvement lies along the path of item effectiveness. Without too much additional labor an agency can find out whether items are too easy, too hard, or whether

they discriminate between the groups that ultimately do well¹⁶ on the total test and those that do not score as well.

They can also isolate specific subject areas by means of item homogeneity studies. Michigan does carry on studies in these areas. For the Employment Service Executive examination under consideration in this paper, a study of the effectiveness of the items was prepared. This study together with its conclusions is shown below after an explanation of the mechanics.

Since many different methods are available the method and mechanics used in this particular situation will be explained in detail. The tetrachoric correlation coefficient was employed. The tetrachoric correlation can be used to advantage if one is measuring only the presence or absence of certain traits but not their scaled measurements. For purposes of this analysis the traits to be correlated were whether a candidate passed or failed the written test and whether he answered a particular item correctly or incorrectly. For purposes of this study a passing score on the examination was considered to be a weighted score of 110.5. The actual passing point was 110. However, scores of 110.5 or above included exactly 25% of the candidates and so were used.

Once the passing score was determined, the material was ready for tabulation. This type of correlation can be obtained only for groups which possess or do not possess certain traits. In this study those candidates who had scores of 110.5 were

considered to possess a trait and those persons who successfully attempted to answer an item were considered to have another trait. Therefore, the necessary pass, fail situation was set up.

One of the biggest advantages of the tetrachoric correlation coefficient is the simplicity of the method with which it is obtained. It is only necessary to run a tally according to the following illustrations:

x	z
y	k

Where:

x = pass first but fail second trait

y = fail both traits

z = pass both traits

k = fail first but pass second trait

After the tallies are obtained it is necessary to find what proportion of the total number of cases fall in each square.

The following diagram is then constructed:

x	z	
y	k	(c)
		(b)
		(a)

X, y, z, and k now represent proportions of the total which, of course, must add up to a hundred percent. A and b are

placed anywhere outside the box and the square which is common to both a and b becomes c. A equals, in the above example, z plus k. B equals y plus k. To obtain the correlation coefficient it is necessary to turn to the appropriate page of the book of charts and pick out the correlation coefficient.¹⁷ There are no complex mathematical or statistical formulas involved. Exacting accuracy is sacrificed since the correlation coefficients are seldom valid to more than two places and usually only to one decimal place. However, their simplicity of computation where exacting accuracy is not required offsets this one minor defect. On pages 89 and 90 is produced a copy of the study described in this section.

To be of any significance it is felt that (subject to certain conditions) the relationship between the upper and lower groups to their ability to answer the item correctly must show a correlation coefficient of at least .20.

On the basis of this criteria, then, it was found that 117 of the 245 items showed no significant effectiveness; therefore, those 117 items should not be included in a revision of this test. With the elimination of these items the effectiveness of the test will probably be increased.

EMPLOYMENT SERVICE EXECUTIVE II

A Study in Item Effectiveness

PURPOSE

To determine the effectiveness of the individual items in the written test in terms of those candidates who were successful on the written test.

BASIC DATA

Title of Examination:	Employment Service Executive II
Date of Examination:	May 7, 1949
Examination Number:	1746 P
Number of Items:	245
Number of Candidates Taking Examination:	280
Number of Cases Used in This Study:	100
Upper Group:	50 cases selected at random from above the third quartile
Lower Group:	50 cases selected at random from below the first quartile
Q1:	80 weighted points
Q3:	110.5 weighted points
Passing Score on the Written Test:	110 weighted points
Method of Study:	The Tetrachoric Correlation Coefficient was employed.

1. Pass or fail written test
(weighted score of 110.5)
2. Whether or not item was correctly
answered.

Section

1 Interv

2 Vocati
Guid

3 Occupa

4 Genera
nel

5 Job A

6 Labor

To

x = Una

a)

b)

c)

TABLE VIII
RESULTS OF EFFECTIVENESS OF ITEMS FOR THE
EMPLOYMENT SERVICE EXECUTIVE II

Section Name	x	Correlation Coefficients										No. of Items in Section
		1	2	3	4	5	6	7	8	9		
1 Interviewing	9	1	4	2	10	4	3	1		1	35	
2 Vocational Guidance	37	1	5	4	7	2	3	3	2	1	65	
3 Occupations	34	4	7	5	7	4	2	2			60	
4 General Person- nel Management	16	1	2	4	1	1	3	1	1		30	
5 Job Analysis	10		4	4	1	3	7		1		30	
6 Labor Relations	<u>4</u>	<u>—</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>—</u>	<u>3</u>	<u>1</u>	<u>20</u>	
Total	110	7	24	21	28	17	21	7	7	3	245	

x = Unacceptable

- a) more than 35 cases (70%) of lower group got item right
- b) less difference than 5 cases (10% between upper and lower groups getting item right)
- c) zero or negative correlation

Correlation Coefficient

0 - .01 to .09
 1 - .10 to .19
 2 - .20 to .29
 3 - .30 to .39
 4 - .40 to .49
 5 - .50 to .59
 6 - .60 to .69
 7 - .70 to .79
 8 - .80 to .89
 9 - .90 to .99

Footno

1. The

2. Do

3. The

4. The

5. E

6. O

7. S

8. H

9. S

10. S

11. S

12. S

13. S

14. S

15.

16.

17.

Footnotes for Chapter VI

1. The Minnesota Clerical Aptitude Test is a good illustration.
2. Donald J. Sublette, Pencil and Paper Testing as a Selection Technique in Public Personnel Administration, Detroit Civil Service Commission, 1945, p. 22.
3. The States of New York, Michigan and California are examples.
4. The cities of Flint and Highland Park, Michigan are examples.
5. Examination of hundreds of tests given by many jurisdictions throughout the country show four and five choices to be the most common. Michigan maintains an out of state examination file.
6. Observations based on approximately 100 examinations in Michigan where subject matter material was divided into a true-false part and a multiple-choice part. These examinations included multiple-choice material obtained from the U.S. Federal Security Board and the Civil Service Assembly.
7. Sublette, Op. Cit., pp. 39-44.
8. Harold E. Burt, Principles of Employment Psychology, Harper and Brothers, New York, 1942, p. 141.
9. Sublette, Op. Cit., p. 34.
10. Donald J. Sublette, Notes on Statistical Procedures in Connection with Personnel Testing, Detroit Civil Service Commission, 1936, p. 17.
11. Ibid., p. 17.
12. Ibid., p. 17.
13. Ibid., p. 20.
14. In a state agency especially the number passed that are required to fill a given job depends on several factors including the time interval between the announcement and the release of the results and the geographical location of the vacancy.
15. Most jurisdictions use 70% as the passing percentage. If some other figure such as 75% is used as a passing percentage then the passing point (total weighted score) would equal 75%.
16. A study of this kind assumes a certain degree of validity in the test. As long as departmental acceptance of the results of an examination is satisfactory, this tentative validity is assumed.
17. Lewis L. Thurstone, Computing Diagrams for the Tetrachoric Correlation Coefficient, University of Chicago Press, Chicago, 1933.

CHAPTER VII

ORAL INTERVIEWS

Introduction

Wherever possible oral interviews are made a part of civil service examinations. Oral interviews are simply personal interviews with the candidates to determine personality factors that cannot yet be validly examined through the means of a written test. While many personality tests are now in existence, none of them has yet been able to receive the acceptance required for civil service testing. They are still in the experimental stage and, when used by civil service agencies, are used on an experimental basis only.

An oral interview is something quite different from an oral examination. Oral examinations test for knowledge, and substitute for the written test. The oral interview, however, is not primarily concerned with the knowledge indicated by the applicant. Rather, it tests for such personal factors as voice, speech, appearance, alertness, ability to present ideas, judgment, emotional stability, self confidence, friendliness and other personal characteristics needed for the job under consideration. While knowledge, as such, does not enter into a rating of this kind, it does have an effect. The factors listed above are not ranked in terms of some absolute standard for the population as a whole. Rather, they are rated in terms of the specific position under

consida

great,

public

"self-

knowle

The "a

tent u

So tha

quired

is not

rate

ties

under

knowl

who a

date

to b

boar

labo

Thes

Serv

both

tive

consideration. A candidate's "friendliness" may not be too great, but still may be adequate for some positions where public contact is not an important factor. A candidate's "self-confidence" will, to some degree, depend upon his knowledge and experience in the area under consideration. The "ability to present ideas" will also depend to some extent upon familiarity with the area under consideration. So that while some very exact personality factors are required, the tendency on the part of civil service agencies is not to assemble boards composed of psychologists who would rate in terms of absolute quantities, but to choose authorities in the area; persons who are familiar with the position under consideration. Or, if not persons with a specific knowledge of the job in question, board members are chosen who are at least familiar with the area in which the candidate will have to work.

Staffing the Oral Boards

Thus, for the Employment Service Executive examination, to be specific, the Michigan Civil Service Commission chose boards composed of one member of industry, one member of labor, and one member of the examining staff of the commission. These choices were predicated upon the fact that Employment Service personnel had extensive and personal contact with both industry and labor.

Once the type of board was decided upon, it was a relatively easy matter to assemble the members. Both industry

and lab
agencie
discuss
to attr
a vice-
treasu
of the
sible

7
tively
Emplo
minut
aimed
at sp
set t
to th
at ea
himse
cand
are

and labor are very ready to cooperate with civil service agencies in matters of this kind. For the examination under discussion, the Michigan Civil Service Commission was able to attract a vice-president of the Detroit Edison Company, a vice-president of Chrysler Corporation, the secretary-treasurer of the UAW, the secretary of the Detroit Chapter of the Typographical union, and many other similarly responsible persons.

Type of Examining Process

The actual examination of the candidates is kept relatively short. The average time spent with any one in the Employment Service Executive examination was about twenty minutes. The type of questioning in this examination, while aimed at discovering those factors listed above, were pointed at specific areas of knowledge. The reason for this was to set the questioning in an area that was supposedly familiar to the applicant. This is done to make the candidate most at ease and to give him a maximum opportunity to express himself and his ideas. A list of typical questions asked of candidates for the Employment Service Executive examination are shown below:

1. Why hasn't the employment service gotten in closer contact with the colleges and universities of the state?
2. Should there be an employment service in an area where the number of available openings is limited and the area is so lightly populated that each employer knows the available employees personally?

3

4

5

6

7

8

9

10

a rat

ing g

the c

exami

is pe

the E

proce

the k

furtl

succ

ing

scor

3. How can you find jobs?
4. How do you know the interviewers who work for you are doing a good job?
5. How do you like state employment?
6. What were your reactions to the written part of the examination for Employment Service Executive series?
7. How would you improve the system under which you are now operating?
8. What should the employment service do when jobs become more scarce.
9. What do you do when the managers of a local office prevent the efficient operation of that office?
10. What is the value in surveying a local office if in a year you come back and find that there is no improvement and this goes on year after year?

The ratings for the examinations are made in Michigan on a rating sheet using a numerical scale from 0 to 100. A passing grade is 70 and if a majority of the board rate below 50 the candidate is eliminated from further processing in the examination (in effect a minimum requirement). This procedure is peculiar to Michigan and is changing all the time. Since the Employment Service Executive examination was given, the procedure has altered slightly so that now if a majority of the board rate below 70 the candidate is eliminated from further processing in the examination. If the candidate is successful the average of the three ratings is used, converting to a final percentage score.

Since there are so many different ways of conducting and scoring oral examinations no attempt is being made here to do

other
rather
such e
The la
which
instea
would

there
of ci
appli
ing a
coura
good
dec
that
Thil
geog
juri
side
Beca
usua
be n
Thi.

other than describe the Michigan procedure as typical of, rather than as an exact and commonly accepted procedure. Much experimentation is being conducted with oral interviews. The latest technique gaining popularity is the group oral in which a group of applicants is assembled at the same time instead of individually. To discuss the topic more thoroughly would require a thesis in itself.

Limitations

While oral interviewing is a highly desirable technique, there are times when it cannot be used. The primary purpose of civil service testing is to obtain the best qualified applicants available and from them choose some to fill existing and future job vacancies. Any technique that will discourage large numbers of qualified applicants, no matter how good it is, must be subject to severe scrutiny in order to decide if its use is justified. Oral interviewing demands that candidates appear personally at the location selected. While this is no problem in an agency operating in a small geographical area, it presents a serious one for other jurisdictions operating otherwise. State agencies must consider the distance factor in scheduling oral interviews. Because of the usual need for a board made up of "outsiders," usually serving at no cost to the agency, arrangements must be made to carry out the interviews as quickly as possible. This usually means that the interviews must be restricted

to one location. As a result, while candidates can take written tests in locations close to their homes, oral interviews may demand their traveling several hundred miles. Under these circumstances, the wise state agency may schedule oral interviews only for those occupational fields in which personal qualifications are a critical part of the job. For other positions the agency may have to rely entirely on the use of the probationary period to weed out those successful candidates who do not meet the necessary personal qualifications.

Oral ratings, whether for an examination or an interview must be used with a great degree of caution. There is always a possibility of favoritism influencing the ratings. In the Employment Service Executive examination complaints of prejudice on the part of members of the board were voiced by a member of a union and by a female. Each accused some member of the board of being prejudiced. Politicians can easily distort the merit principle if they can obtain a voice in the selection of oral board members. The merit agency must constantly be on its guard against schemes of this kind. Also, in the highest level examinations it is difficult to assemble a board of prominent individuals in a field without choosing persons known to some of the applicants. This condition can aggravate claims of favoritism or discrimination.

-
1. Examples are the use of the Bernreuter test by the Detroit Civil Service Commission and the Cornell Index by Michigan Civil Service Commission. These tests, however, are used as unweighted parts of the examination and are utilized by the examiners only as guides to indicate factors that should be checked.

service
in the
the se
partme
meetin
tional
found
ment
deter

ing d
merit
Servi
sors
plove
perso
is de

a con
past
in r

CHAPTER VIII

MERIT RATINGS

Service Ratings

Most civil service agencies are set up on a career service basis. Therefore, wherever possible, job vacancies in the higher levels are filled by promotion from within the service. While many agencies allow the operating departments to promote at will, subject only to the employee's meeting a predetermined standard, others insist on promotional examinations. Where promotional examinations are found, some kind of device is usually used to give management a voice in the proceedings. This can be a serious deterrent to an effective promotional testing program.

Perhaps the most common instrument used by the operating departments to help choose those to be promoted is the merit rating most commonly known as the service rating. Service ratings are periodic estimates made out by supervisors for their employees. They attempt to tell how the employee is doing on the job. They also try to point out personal characteristics in which the employee excels or is deficient.

Michigan Civil Service, as one of the agencies that has a comprehensive promotional examination program, has in the past relied heavily on the use of service ratings. Except in rare instances, Michigan has allowed them to count 25%

of

ass

mis

An

serv

used

that

clen

date

may

cult

to a

for v

natio

may b

ratin

to ma

super

stand

a goo

himse

pleas

of the total examination. The exact weight that agencies assign to service ratings fluctuates greatly. However, 10% might very well be considered an average figure.

Service ratings possess some definite inherent defects. An important feature that may affect the validity of the service rating is the fact that a rating made for one job is used to decide promotion to another. It hardly need be said that many employees who are operating in an extremely efficient manner are nevertheless not necessarily suitable candidates for higher level or different types of work.

A second problem in the use of the service ratings that may affect its validity as an examination tool is the difficulty of adequately training the supervisor to rate according to a positive standard. Where groups of employees working for various supervisors are all competing in the same examination, the supervisor who rates "hard" or conscientiously may be penalizing his employees if other supervisors are rating "easy." In actual practice, it is next to impossible to make service ratings have a comparable meaning from one supervisor to another.

A third area to consider is training supervisors to stand up to pressure. It is simply too easy to give everyone a good rating. The supervisor who rates honestly finds himself beset with morale problems, appeals, and other unpleasant after effects.

T
office
and th
so to
Howev

Da
1946
1947
1947
1948
1948
1949

that
ence
tog
tho
ing
by
96,

vo

The Michigan Employment Security Commission personnel office conducted a study of service ratings of its employees and the findings are quite revealing. They are sufficiently so to warrant including the entire report in the appendix. However, a summary shows the following:

TABLE IX
DISTRIBUTION OF SERVICE RATINGS IN THE FIVE
PERFORMANCE RANGES

Date	No. Employees	Excellent	Above Av.	Average	Below Av.	Unsatis- factory
1946-Dec.	2,864	15.08	42.67	40.40	1.36	.49
1947-June	2,674	22.18	48.62	28.27	.82	.11
1947-Dec.	2,086	35.24	47.49	16.06	.62	.14
1948-June	2,032	44.88	42.81	12.01	.25	.05
1948-Dec.	1,867	56.67	36.37	6.75	.16	.05
1949-June	1,793	58.39	33.30	8.20	.11	.00

Two facts stand out clearly in the above table. One is that the ratings bear no apparent relationship to the differences between employees. And second, with the scores grouped together, management has forfeited its power to help choose those employees who it wishes to promote. Instead of counting 25% of the test which was the aim in Michigan, management by squeezing most of the scores between approximately 88 to 96, has reduced its power to choose to two percentage points.¹

Promotional Potential Ratings

The basic problem is whether management should have a voice in promoting its employees. Michigan is strongly

committed to such a policy, but in light of the obvious shortcomings of the conventional merit ratings, it has shifted its entire procedure. The merit rating program has been divorced from the examination program. It has devised a new type of merit or service rating that has no numerical scores. Employees are simply rated as unfit, conditional, or satisfactory.

Concurrent with the elimination of the service rating from the examination program Michigan introduced a new form known as a "Promotional Potential." The promotional potential serves a different purpose from a service rating. It is used solely in examinations. It gives the management an opportunity to rate each employee for every examination for which he applies according to his promotional potential. Management is then in a position to rate an employee high on his service rating if his work deserves it, and at the same time low or even failing on a promotional potential. It is also possible for management to rate an employee as having only a fair chance for success on one promotional job, but an excellent chance on others. These situations arise where a person can be promoted to either a supervisory, a public contact, or a research position. The employee's personal characteristics may be such that he would have an excellent chance for success on one, but would be unsuited for another.

Michigan has gone a step farther in this program. Recognizing the need for an instrument that will give management

a positive voice, it has tended to establish a weight for the promotional potential much higher than that set for service ratings. While the weight set has varied from 10 to 50 per cent, the generally assigned weights are between 35 and 50 per cent. Since the promotional potential ratings, as used in Michigan have an unsatisfactory category and only three satisfactory categories, scores are pushed away from each other. For instance if the weight set is 50%, then a fair chance for success would give 35 points; a good chance for success would produce about 42 points, and an excellent chance for success would give the candidate 50 points. A shift in only one category, therefore, produces a point differential of about seven points in contrast to the entire practical spread of two points on the formerly used service ratings.

Michigan has been using the promotional potential rating for close to three years. While no definite statement can be made, it appears at this time that management is making better use of this instrument than it did of merit ratings and is therefore exercising a greater voice in the selection of promotional personnel

Restrictions on a Promotional Program

In Michigan the promotional policy is beset with many restrictions that tend to work against its effective operation. Eligible registers are set up separately for each department.

The rule of three in which the appointing authority has the choice of three names is in use. Geography limits the competition in many areas. And finally, an open competitive register is not necessarily used even if no names appear on the promotional register. To be more effective consideration should be given to concurrent open competitive examinations from which eligibles could be appointed. A statewide promotional register is another approach that has not as yet been attempted. A statewide promotional register would allow the smaller departments to have a larger and more realistic selection of promotional candidates.

Broadening the base of the promotional examination develops a counter argument however. Merit agencies have attempted to set up "career" services, and a career service requires some protection in promotion from those from without. The principles of true competition and a career merit program conflict in this instance.

1. Two percentage points equal 25% of the eight point spread.

CHAPTER IX

SUMMARY

An attempt has been made to clearly describe the procedure followed in public personnel agencies in testing applicants for civil service positions. Civil service testing is hedged with artificial restrictions that make the job much more difficult than it would be otherwise. Residence requirements restrict the amount of competition; veterans preference is inconsistent with merit principles; pay and recruitment policies are often determined on a political basis. [The very rules of procedure of many civil service agencies are affected by political considerations of politically appointed commissioners.

But not all the shortcomings of civil service can be laid to politics. There is much to be learned. Practically no agreement exists in the field as to proper techniques. There is disagreement between the clinical psychologist and the psychometrician concerning proper approaches to problems. Differences of opinion as to proper emphasis in the program are always prevalent. Many feel the philosophy of civil service, as a policing agency to prevent the spoils system, must give way to a new ideal of service. Increased speed in releasing examination results, more positive recruitment policies, and facilities for research must be provided for the operating department.

The procedures described in this paper illustrate the general pattern of civil service testing in this country. Most civil service examinations consist of several parts: a written test, a rating of experience and education constitute the basic core. Other parts play an important role in examinations. Many agencies employ the oral interview in all examinations. Others, include it in examinations only under certain conditions such as may exist if a position carries with it a great deal of responsibility or involves a large amount of public contact. Promotional examinations usually include a section to give management some voice in the selection. There are deviations from the general pattern among certain agencies, but they are the exception at the present time. Perhaps if the criticism of civil service that seems to be mounting continues, drastic changes in procedure may result. As of now, however, the test examiner must work within the general framework described in the body of this paper.

APPENDIX A

State of Michigan
CIVIL SERVICE COMMISSION

Memorandum

To: Mr. Paul T. Anderson April 21, 1950

From: Norman Berkowitz

Subject: "Committee" protest of Employment Service Executive Examination Results.

The Employment Service Executive examination has been attacked by a group or "committee" of Detroit employees of the Michigan Unemployment Compensation Commission. They have charged that the examination has been constructed in a manner that eliminates the large majority of the applicants from passing or receiving scores high enough to place within certifiable range. Specifically, they have charged that the examination emphasized heavily the educational aspects of the candidates. In so doing they charge that persons with high school backgrounds were effectively eliminated from placing high on the register.

They charge that experience was employed only as a minor factor.

The following tabulations taken from the Employment Service Executive II examination have been prepared to show that the charges are without foundation. They show that persons in all educational brackets, including high school, fell both high and low on the register. They show that no single factor, such as education, determined a persons place on the register. They show instead that it was necessary to score successfully on all parts of the examination to have hopes of placing high on the register.

If any emphasis at all is indicated by the tabulations, it would seem to be that persons with the longest, highest and most diversified backgrounds were the most apt to place high on the register. As a matter of fact the tabulations seem to indicate that without a long and diversified experience background in the field it was extremely unlikely, if possible, to score very high on the examination.

ms

1

TABULATIONS OF TYPICAL CASES
EMPLOYMENT SERVICE EXECUTIVE II

Case 1 -

High School

1938 - Interviewer	E & T Score	29.5
1941 - Branch Manager I	Final Score	83.713
1942 - Branch Manager II	Eligible Reg.	
1943 - Employment Service Exec. II	Rank	77

Case 2 -

High School

1938 - Interviewer	E & T Score	29.5
1942 - Job Analyst II	Final Score	88.806
1943 - Labor Supply Technician II	Elig. Reg. Rk.	13
1944 - Employment Service Exec. II		

Case 3 -

High School

1938 - Unemployment Claims Examiner I	E & T Score	29.5
1942 - Interviewer I	Final Score	88.713
1943 - Labor Market Analyst IIa	El. Reg. Rk.	14
1944 - Labor Market Analyst II		
1944 - Employment Service Exec. III		
1946 - Employment Service Exec. IIIa		
1948 - Employment & Claims Br. Mgr. IV		

Case 4 -

1 year College

2 years Military Personnel Officer	E & T Score	21.5
1946 - Employment Service Interviewer	Final Score	75.604
	El. Reg. Rk.	151

Case 5 -

1 year College

1940 - Unclassified	E & T Score	30.5
1941 - Branch Manager I	Final Score	84.053
1942 - Interviewer Ia	El. Reg. Rk.	72
1943 - Employment Service Exec. II		

Case 6 -

1 year College

1938 - Interviewer	E & T Score	30.5
1942 - Interviewer Ia	Final Score	87.922
1943 - Employment Service Exec. II	El. Reg. Rk.	20
1945 - Employment Service Exec. Ia		
1946 - Employment Service Exec. II		
1949 - Unemployment Claims Ex. II		
1949 - Employment Service Exec. Ia		

Case 7 -

2 years College

1938 - Interviewer	E & T Score	25.5
1942 - Interviewer Ia	Final Score	74.207
1944 - Interviewer	El. Reg. Rk.	162

Case 8 -

2 years College

1940 - Interviewer	E & T Score	30.5
1942 - Interviewer Ia	Final Score	88.227
1944 - Interviewer	El. Reg. Rk.	107
1944 - Labor Market Analyst II		

Case 9 -

2 years College

1938 - Interviewer	E & T Score	30.5
1942 - Branch Manager Ia	Final Score	88.08
1943 - Employment Service Exec. Ia	El. Reg. Rk.	19
1943 - Employment Service Exec. I		
1944 - Employment Service Exec. II		
1946 - Employment Service Exec. III		
1948 - Employment and Claims Br. Mgr. III		

Case 10 -

3 years College

1938 - Interviewer	E & T Score	31.5
1942 - Interviewer Ia	Final Score	83.639
1943 - Employment Service Executive II	El. Reg. Rk.	78

Case 11 -

3 years College

1938 - General Clerk B	E & T Score	31.5
1940 - Interviewer	Final Score	88.833
1943 - Interviewer Ia	El. Reg. Rk.	12
1944 - Interviewer		
1944 - Employment Service Exec. II		
1944 - Labor Market Analyst II		

Case 11 - (Continued)

1944 - Employment Service Exec. III
 1945 - Labor Market Analyst II
 1948 - Unemployment Claims Examiner II
 1948 - Employment & Claims Branch Manager III

Case 12 -

4 years Specialized College

1942 - Interviewer	E & T Score	21.5
	Final Score	72.288
	El. Reg. Rk.	184

Case 13 -

4 years Specialized College

1945 - Interviewer	E & T Score	25.5
1946 - Veterans Employment Rep. II	Final Score	73.148
1946 - Veterans Employment Counselor II	Eligible	
1947 - Interviewer	Reg. Rk.	176

Case 14 -

4 years General College

1938 - Interviewer	E & T Score	31.5
1941 - Training Instructor I	Final Score	86.738
1942 - Interviewer	El. Reg. Rk.	28
1943 - Interviewer Ia		
1943 - Employment Service Exec. II		
1945 - Employment Service Exec. III		
1945 - Labor Market Analyst II		
1945 - Employment Service Exec. II		

Case 15 -

4 years Special College

1938 - Interviewer	E & T Score	34.
1942 - Interviewer Ia	Final Score	86.204
1943 - Employment Service Exec. II	El. Reg. Rk.	36
1944 - Interviewer		
1945 - Employment Service Exec. Ia		

Note: Last experience notation for each case is from date listed to closing date of examination.

APPENDIX B

MICHIGAN UNEMPLOYMENT COMPENSATION COMMISSION
7310 Woodward Avenue, Detroit 2, Michigan

November 8, 1949

TO: Mr. Harry C. Markle, Executive Director
FROM: Eugene E. Busha, Personnel Director
SUBJECT: Special Report on Service Rating Program

On the occasion of the Commission meeting of September 21, 1949, the Chairman requested that I prepare a report evaluating the Service Rating Program for the period ending August 25, 1949. This report was submitted on September 28, 1949, and was reviewed by the Commission on the occasion of the next regular meeting. Subsequently, I was requested by the Chairman to prepare a further report, incorporating therein information as to this Commission's experience with the Service Rating Program during the past few years.

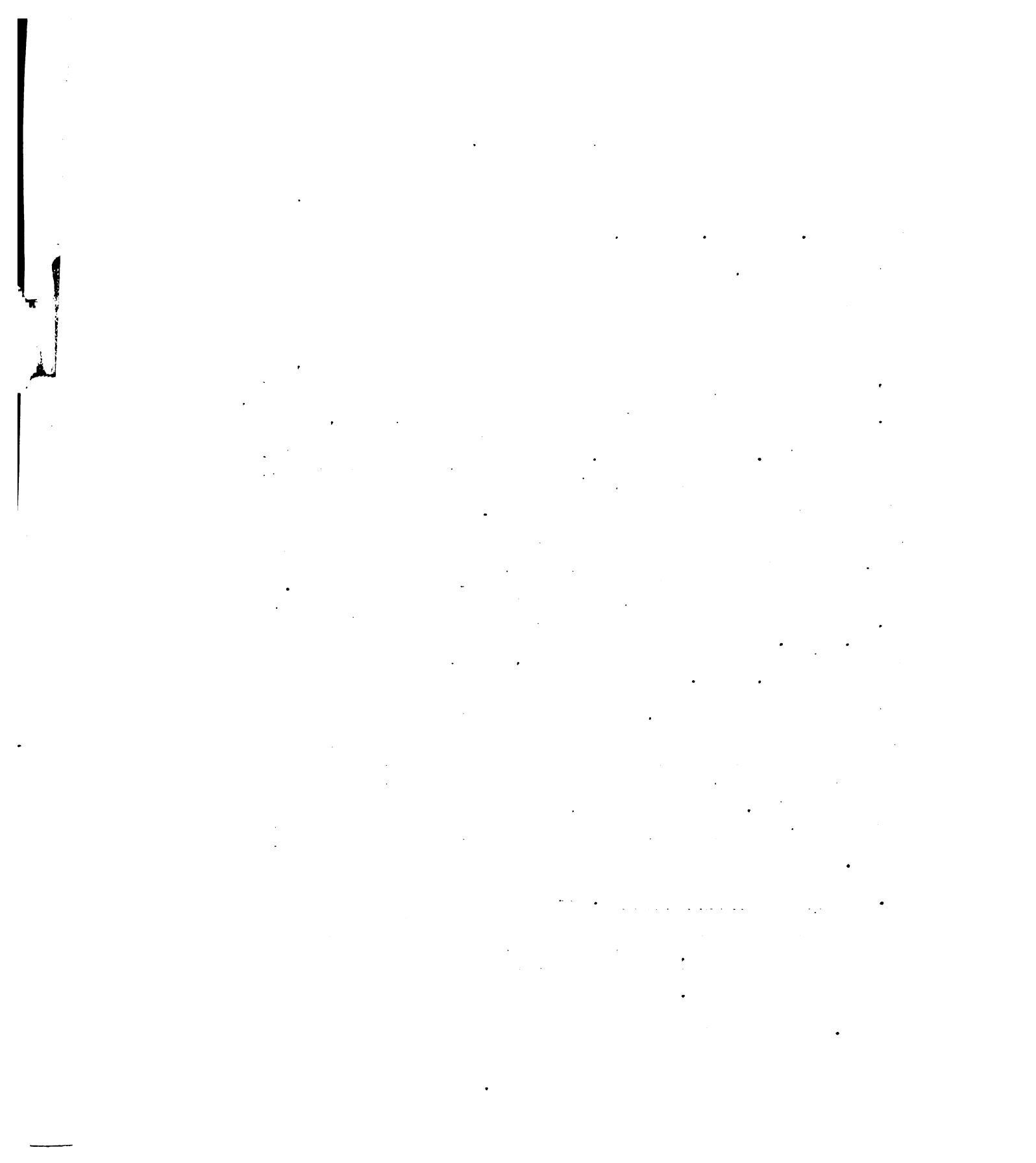
This report will deal with the Service Rating Program for the three-year period ending June 30, 1949, including a total of six distinct Service Rating periods at six-month intervals. We shall begin with the six-month period ending December 31, 1946, and we shall end with the six-month period ending June 30, 1949. It should be understood that the next Service Rating period will end on December 31, 1949, with the ratings due February 25, 1950.

Civil Service Rule XXX, Service Ratings:

"The director (Civil Service Director) shall establish a system of service ratings to register the quality and quantity of service rendered by each employee in the state civil service. These ratings, together with seniority groupings, shall be used in such manner as shall be helpful in the administration of the provisions of the amendment.

A. Employee to be Notified. -- Each employee shall be notified of his service ratings and the reports and records of such ratings shall be open for inspection to the employee, to his appointing authority and to such other appointing authorities as the director shall designate.

1. Service ratings shall be returned for each permanent employee at least once in every six months period for the first two years of service in the class and annually thereafter.



2. Service ratings for each probationary employee shall be furnished at the end of the second, fourth and sixth month of service.
3. If the average of an employee's last three service ratings is below seventy (70), the director may, at his discretion, if no action is taken by the appointing authority, recommend to the commission the removal of the employee.
4. Appointing authorities shall review their employee's service ratings with them, and employees shall be requested to sign and date the service ratings as evidence of such review. In the event that an employee is dissatisfied with his service rating after such review, he may appeal to the civil service commission within fifteen (15) days following review."

The Civil Service Commission has issued a Service Rating Training Guide which defines the service rating program and provides rather specific instructions on the preparation and use of service ratings.

In addition to the Civil Service requirement that service ratings be prepared, the Personnel Standards of the Bureau of Employment Security also make mandatory a system of service rating.

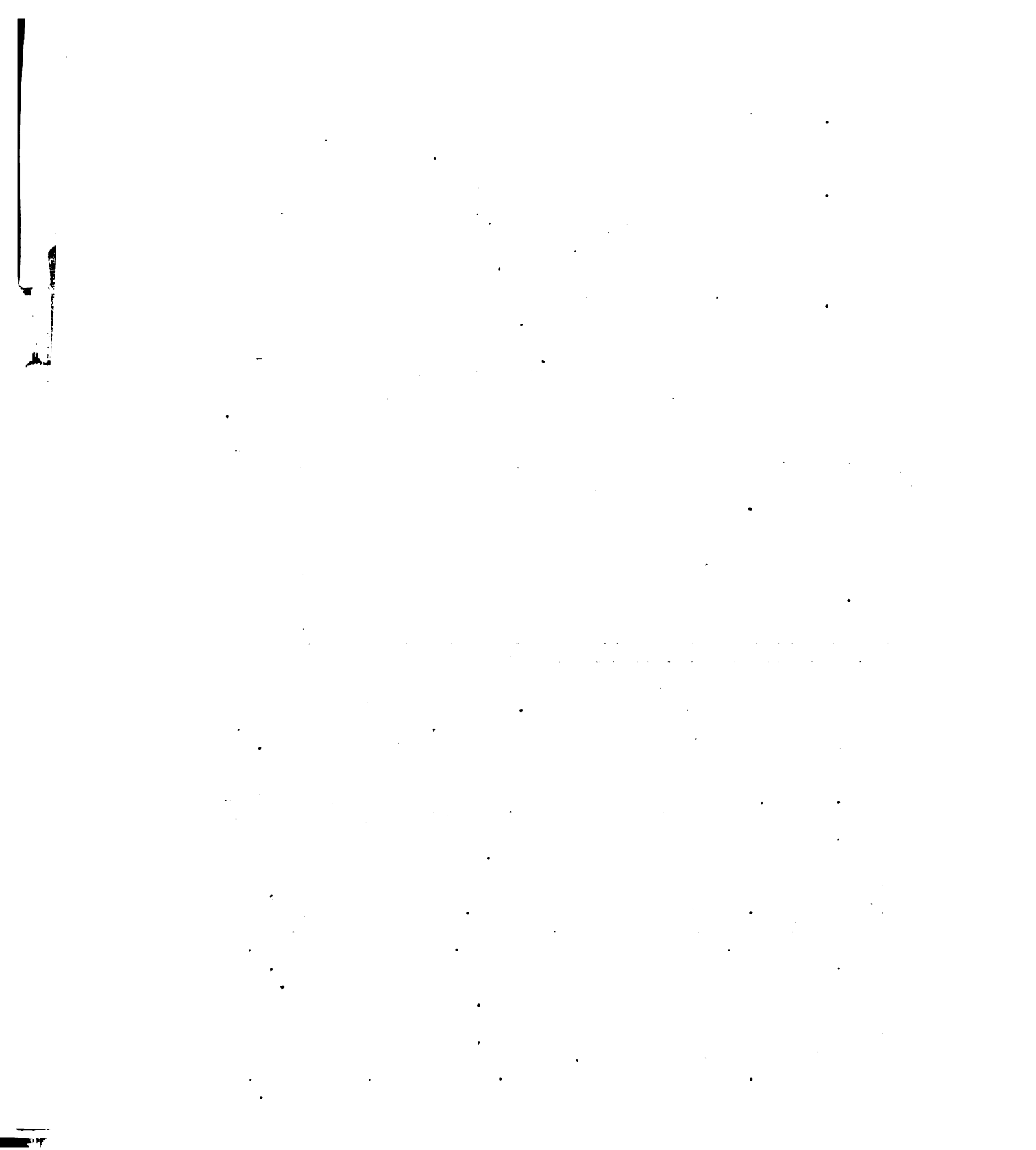
Standards For A Merit System Of Personnel Administration In State Employment Security Agencies:

"A system of periodic service ratings for the evaluation of performance will be maintained. The manner in which such ratings are to be used in promotions, salary increases, and separations will be provided for by agency regulation."

The foregoing represents the legal basis for the service rating program. Thus, the service rating system is a definite requirement and must be maintained under Civil Service Rules and Regulations, as well as under the Personnel Standards imposed on us by the Bureau of Employment Security.

During the past three years this Commission has prepared 13,316 service ratings. During this same period, a total of 117 service rating appeals were heard, of which a total of 87, or approximately 75%, were raised or adjusted. It is emphasized, however, that in addition to the 117 appeals actually heard, there are approximately 30 pending appeals as of this date. These appeals have not as yet been heard.

It is interesting to note that of the 13,316 service ratings prepared in a three-year period, only one and one-tenth per cent of the total (1.1%) have been appealed. There are, of course, many appeals filed that are later withdrawn by the appellant.



The following table shows the distribution of service ratings in the five performance ranges by period:

<u>Period</u>	<u>No. Employees</u>	<u>Excellent</u>	<u>Above Av.</u>	<u>Average</u>	<u>Below Av.</u>	<u>Unsatis- factory</u>
1946-Dec.	2864	15.08	42.67	40.40	1.36	.49
1947-June	2674	22.18	48.62	28.27	.82	.11
1947-Dec.	2086	35.24	47.49	16.06	.62	.14
1948-June	2032	44.88	42.81	12.01	.25	.05
1948-Dec.	1867	56.67	36.37	6.75	.16	.05
1949-June	1793	58.39	33.30	8.20	.11	0.00

It is quite obvious from this table that there has been an enormous change in the effectiveness of the service rating program since 1946. The percentage distribution of employees in the excellent performance range has increased from 15.08% in 1946 to 58.39% in 1949. The number of employees in the unsatisfactory and below average range has been virtually eliminated.

In my opinion, this change has resulted, in part, from the following:

1. The 1946 service rating program was not started until a very thorough training had been completed. This training was still fresh in the first half of the 1947 Service Rating Program. Since then (1947), no training has been given in the Service Rating Program.
2. The Civil Service Commission began giving a number of examinations in May, 1947, and continued the examination program up to the present. Since service ratings are a part of the promotional examinations, it is possible to attain a maximum of 25 points with a "perfect" rating. Each Service Rating "point" represents $\frac{1}{4}$ point on the service rating portion of a promotional examination. For example: John Doe receives a numerical score on his service rating of 88. This score divided by $\frac{1}{4}$ gives John Doe a score of 22 out of a possible maximum of 25 on the examination. Thus, it is desirable to obtain the highest possible Service Ratings.

This arrangement tends to promote the practice of "Lobbying" for the highest possible Service Rating score among employees.

3. The State Office has always given much higher service ratings than either Outstate or Detroit Branch Offices. This practice was resented by Branch Office Managers



when they discovered it, and in order to accord their employees equal consideration, the Branch Managers began to raise the service rating scores of their employees. As evidence of this fact, consider that in 1946, the total number of service ratings prepared was 2864. These employees were distributed as follows:

<u>Location</u>	<u>No. Employees</u>	<u>Percent</u>	<u>Percent Excellent</u>
State Office	1023	35.72	19.35
Detroit	1027	35.86	12.85
Outstate	814	28.42	12.53

These same figures for the first half of 1947 show that the number and percent of employees given excellent service ratings greatly increased in the Commission but especially in the State Office.

State Office	1033	38.6	27.49
Detroit	915	34.2	21.75
Outstate	726	27.2	15.15

By the time we completed the last half of the 1947 service rating program, the entire rating system was out of control and the Outstate Offices had caught on to the spirit of things:

State Office	971	46.55	41.19
Detroit	658	31.54	27.96
Outstate	457	21.91	33.04

FIRST HALF - 1948

State Office	814	40.06	55.78
Detroit	616	30.31	40.91
Outstate	602	29.63	34.22

LAST HALF - 1948

State Office	687	36.80	67.10
Detroit	581	31.12	52.50
Outstate	599	32.08	48.75

FIRST HALF - 1949

State Office	607	33.85	65.73
Detroit	598	33.35	55.35
Outstate	588	32.80	53.91

The majority of our employees are in the Branch Offices. Approximately two-thirds of our total staff. We cannot

expect the Branch Managers to rate their employees honestly and in accordance with reasonable standards if our State Office supervisory staff does not adhere to similar standards. It is clear from the above tables that our State Office personnel were, and still are, receiving much higher ratings than our Branch Office personnel. This practice gives the State Office employees a distinct and real advantage in the promotional examination process.

Our Branch Managers and supervisors are well aware of this distinction and quite justifiably resent the unfairness of the situation. Aside from contributing to the decrease in morale in Branch Office, this matter has brought about the complete breakdown of the service rating program.

It should be noted that among other conditions, a Service Rating Program cannot be successful unless the following items are pretty much adhered to at all times:

1. Supervisors (Raters) must understand and approve of the system. They must carry out their responsibilities conscientiously.
2. Top executives must be actively interested. They must be really sold on the program and participate in its actual operation.
3. The rating form itself must be adequate to meet the needs for which it is designed.
4. Clear, specific and detailed instructions must be given to those who use the system. These instructions must be used. It is important that the program be as uniformly followed as is possible.
5. Absolutely comprehensive training must be given to all raters and reviewing officers. In fact, the raters (Supervisors) should actually do the training.
6. The ratings must be used as a tool or technique in the employee-development process rather than as an isolated task to be brushed off as an unpleasant duty. The ratings should be used to show the employee what his good and bad points are, and should be used to train and develop the employee.

In my report to the Commission on September 28, 1949, I touched on the findings and recommendations of the "Hoover Commission's" report on this same subject. Therefore, I shall not make further comment on their findings here.

It is certain that the service rating program is a necessary program in the sense that it is mandatory that we maintain such a program. I believe that with the proper interest and cooperation of all top staff and supervisory staff, we could greatly improve our present program. I suggest that in any further consideration of this program we call upon the State Personnel Director for whatever assistance he may be able to provide. The Michigan Civil Service Commission has available a Training Division under which the present system was devised, according to my understanding of the history of the present system.

APPENDIX C

Michigan Civil Service Commission

DERIVATION OF MULTIPLYING FACTORS
EMPLOYING AN AVERAGE OF THE EFFECTIVE
RANGE AND INTER-QUARTILE RANGE METHODS

Examination No. 1933 OC Examination Title Employment Service Examination Date May 7, 1949
1746 P Executive Ia, II, III, IV, III, IV.

No.	Name	Wt.	Eff. Range	Eff. Range Wtd.	M.F. (E.R.)	Inter-quartile Range	Inter-quartile Range Wtd.	M.F. (Q)	Avg. M.F.	M.F.
1	Interviewing	1	28	28	1.	8.21	8.21	1.	1.	1.
2	Vocational guidance	1	42	28	.666	10.64	8.21	.771	.718	.7
3	Occupations	1	48	28	.583	12.70	8.21	.646	.614	.6
4	General personnel management	1	26	28	1.076	7.08	8.21	1.159	1.117	1.1
5	Job analysis	1	23	28	1.217	6.21	8.21	1.322	1.269	1.3
6	Labor relations	1	20	28	1.4	5.55	8.21	1.479	1.439	1.4
7	Placement services	2	32	56	1.75	8.45	16.42	1.943	1.846	1.8
8	Office practices, procedures and techniques	1	10	28	2.8	2.43	8.21	3.378	3.089	3.0
9	Business information	2	42	56	1.333	8.65	16.42	1.898	1.615	1.6
10	Management practices	1	10	28	2.8	2.81	8.21	2.921	2.860	2.9

SELECTED
BIBLIOGRAPHY

Books

- Adkins, Dorothy C., et al. Construction and Analysis of Achievement Tests. Washington, D.C., United States Government Printing Office, 1947.
- Baruch, Ismar. Position Classification in the Public Service. Chicago, Civil Service Assembly, 1941.
- Bingham, Walter Van Dyke, Aptitudes and Aptitude Testing. New York, Harper and Brothers, 1942.
- Buros, Oscar K. (Editor). The Third Mental Measurements Yearbook. New Brunswick, Rutgers University Press, 1949.
- Burt, Harold E. Principles of Employment Psychology. Revised Edition, New York, Harper and Brothers, 1942.
- Cronbach, Lee J. Essentials of Psychological Testing. New York, Harper and Brothers, 1949.
- Freeman, Frank S. Theory and Practice of Psychological Testing. New York, Henry Holt and Company, 1950.
- Friedland, Louis L. Personnel Administration in Michigan Government. Lansing, Michigan, Joint Legislative Committee on Reorganization of State Government, 1951.
- Gouldner, Alvin W. (Editor). Studies in Leadership. New York, Harper and Brothers, 1950.
- Guilford, J. P. Fundamental Statistics in Psychology and Education. New York, McGraw-Hill Book Company, Incorporated, 1942.
- Hoover, Herbert, et al. Personnel Management. Washington, D.C., United States Government Printing Office, 1949.
- Hoslett, Schuyler D. (Editor). Human Factors in Management. Parkville, Park College Press, 1946.
- Lindquist, E. F. (Editor). Educational Measurement. Washington, D.C., American Council on Education, 1951.
- Lytle, C. W., Job Evaluation Methods. New York, Ronald Press, 1946.
- Mosher, William E., Kingsley, Donald J., and Stahl, O. G. Public Personnel Administration. 3d edition, New York, Harper and Brothers, 1950.

- Mursell, James L. Psychological Testing. New York, Longmans, Green and Company, 1947.
- Scott, Roberta, The Group Oral Test in Selecting Public Employees. Chicago, Civil Service Assembly, 1950.
- Shartle, Carroll L. Occupational Information. New York, Prentice-Hall, Incorporated, 1946.
- Stout, Hiram M. Public Service in Great Britain. Chapel Hill, University of North Carolina Press, 1938.
- Sublette, Donald J. Notes on Statistical Procedures in Connection with Personnel Testing. Detroit, Detroit Civil Service Commission, 1936.
- _____. Pencil and Paper Testing as a Selection Technique in Public Personnel Administration. Detroit, Detroit Civil Service Commission, 1945.
- Sues, Otto L. A Guide for Preparing Personnel Tests. Chicago, Civil Service Assembly, 1951.
- Super, Donald E. Appraising Vocational Fitness. New York, Harper and Brothers, 1949.
- Thorndike, Robert L. Personnel Selection. New York, John Wiley and Sons, Incorporated, 1949.
- Thurstone, Lewis L. Computing Diagrams for the Tetrachoric Correlation Coefficient. Chicago, University of Chicago Press, 1933.
- Tiffin, Joseph. Industrial Psychology. New York, Prentice-Hall, Incorporated, 1947.
- Yoder, Dale. Personnel Management and Industrial Relations. New York, Prentice-Hall, 1942.

Periodicals

- Edwards, Austin S. The Myth of Chronological Age. Journal of Applied Psychology, 1950, Vol. 34, pp. 316-318.
- Flanagan, John C. General Considerations in the Selection of Test Items. Journal of Educational Psychology, 1939, Vol. 30, pp. 674-680.
- Galston, Samuel H., and Hoberman, Solomon. Testing for a High Level Position. Public Personnel Review, 1952, Vol. 13, pp. 24-27.

- Gulliksen, Harold. Intrinsic Validity. American Psychologist, 1950, Vol. 5, pp. 511-517.
- Jurgensen, C. E. Overall Job Success as a Basis for Employee Ratings. Journal of Applied Psychology, 1950, Vol. 34, pp. 333-337.
- McGilvery, Francis E. The Problem of Position Evaluation. Public Personnel Review, 1952, Vol. 13, pp. 12-17.
- Rechetnick, Joseph, and Levine, Harold. Selecting Administrators. Public Personnel Review, 1952, Vol. 13, pp. 172-175.
- Viteles, Morris S. A Dynamic Criterion. Occupations, 1936, Vol. 14, pp. 953-957.
- Zill, Anthony. A Further Inquiry into the Group Oral. Public Personnel Review, 1953, Vol. 14, pp. 55-63.

Public Documents

- Detroit Civil Service Commission. The Classification Plan of the City of Detroit. 1942.
- Michigan State Civil Service Commission. Examinations, Certifications, and Appointments in the Michigan State Civil Service 1946-1951. 1951.
- Michigan State Civil Service Commission. Analysis of the Supplementary Comments of Loren B. Miller, Director of the Michigan Joint Legislative Committee on Reorganization of State Government Concerning "Personnel Administration in Michigan Government." 1951.
- Michigan State Civil Service Commission. Minimum Entrance Standards for Admission to Civil Service Examinations. 1939.
- United States Congress. 81st. Classification Act of 1949. Public Law 429, Washington D.C., United States Government Printing Office, 1949.

Private Communications

Feinberg, George, Sacramento, California. Information on classification techniques in the State of California Civil Service Board. Private communication. 1948.

Meyer, Charles A., Detroit, Michigan. Letter to Civil Service Assembly concerning longevity pay and its relationship to classification practices in public agencies. Private communication. 1948.

ROOM USE ONLY

JUN 2 1958
MAR 1 1959

ROOM USE ONLY

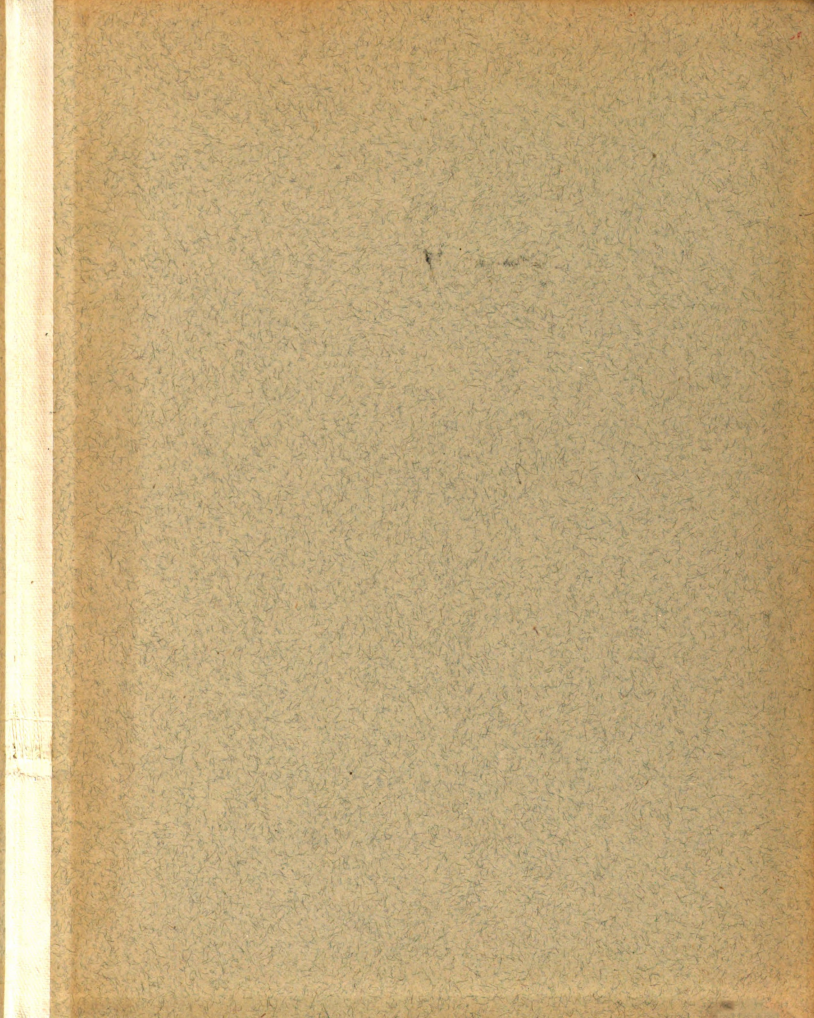
~~OCT 21 1960~~

~~JUN 1 1965~~

~~JAN 7 1971~~ 3/6

~~MAR 6 1971~~ 74

2



MICHIGAN STATE UNIV. LIBRARIES



31293008522124