



The Urbana Free Library

210 West Green Street, Urbana, Illinois 61801 • 217-367-4057 • fax: 217-367-4061 • urbanafreelibrary.org

MEMORANDUM

TO: The City of Urbana, Civil Service Commission

FROM: Rachel Fuller, Director of Adult & Youth Services and Acquisitions

RE: Report on Applications for Circulation Clerk/Information Assistant Position

DATE: November 30, 2022

A. Summary

The Urbana Free Library considered 81 of 81 applicants using a rubric based on the minimum qualifications for the position. All applicants met minimum qualifications for the position, and applicants were scored based on their training and experience. Urbana preference points and veteran status points were added as appropriate. Using this scoring rubric resulted in 54 applicants who scored 35 points or higher. The sample score sheet has been included in this packet.

B. Background

The position was open for application from September 23, 2022 to October 18, 2022. The Urbana Free Library received 81 applications from applicants who met the minimum qualifications for the position. Nine applicants opted out of giving information on one or more sections of the EEO form, so numerically the breakdown of the applicants who did give information is as follows:

Male: 19 Non-Minority: 56

Female: 49 Minority: 17

C. Application Screening

Required qualifications included a high school diploma or equivalent, one year successful, continuous work experience, and 25 words per minute. Public service, library, and supervisory experience were all preferred. Prior experience with Polaris ILS; bilingual skills; and training and experience in reference, technology, electronic resources, and adult, teen, or children's services were desired.



CIRCULATION CLERK – FULL TIME/PART TIME

JOB DESCRIPTION

Department:	Circulation Services	Benefits	Yes (pro-rated for PT)
Division:	N/A	Time:	General minimum of 39 hours per week for Full Time and 20 hours per week for Part Time, including evening and weekend hours. Part Time employees may work additional hours above the 20 base hours as requested by their supervisors for the Library's needs.
Job Type:	Civil Service (FT) ; Non-Civil Service (PT)	FLSA Status:	Non-Exempt
Reports To:	Circulation Manager	Pay Grade:	23 for Circulation Clerks; 25 for Information Assistants

JOB SUMMARY

The Circulation Clerk performs detailed clerical work that involves the automated circulation of Library materials and the maintenance of related files. Circulation duties demand extensive public interaction, and the clerk must be continually positive and friendly while handling many tasks at once in a busy environment. Duties are carried out under specific procedural guidelines and policies, and the Circulation Clerk reports to the Circulation Manager or senior Circulation Clerks. A full-time or part-time Circulation Clerk may also be trained to work as an Information Assistant, with duties at the first-floor Information Desk, the second-floor adult Reference Desk and computer lab, and the children's Question Desk. A full-time or part-time Circulation Clerk also may create and/or maintain schedules for Library staff.

ESSENTIAL FUNCTIONS

- Serves the public at the circulation desk by checking out and checking in library materials, collecting fines, issuing library cards, explaining policies, etc.
- Utilizes the Library's computer system for various circulation services and functions.
- Answers telephone both for Circulation Services and for the entire Library.
- Issues borrowers' cards and maintains files.
- Handles monetary transactions with accuracy.
- Processes interlibrary loans (FT) and hold requests.
- Represents the Library at outreach events in the community.
- Shares responsibility for the smooth running of the circulation desk, including maintaining a prompt and reliable attendance record.

- Supervises staff and manages workflow in the absence of senior Circulation Clerks.
- Ensures the security of Library items and that equipment is in proper working order for a secure collection.
- May create and/or maintain schedules for Library staff.
- Performs other related duties as assigned.
- Attends department and other meetings as scheduled.

JOB REQUIREMENTS

Education & Experience

- High school diploma or equivalent required.
- 25 words per minute keyboarding skills.
- One year successful, continuous work experience.
- Public service, library, and supervisory experience all preferred.
- Bilingual skills (especially Spanish, French, or Chinese) desirable.

Knowledge of

- Basic word processing and spreadsheet software.
- General office and clerical procedures.

Skills

- Strong commitment to excellent public service; friendly, energetic, and adaptable.
- Good organizational, interpersonal, and decision-making skills to work effectively with patrons, staff, and visitors.
- Excellent verbal and nonverbal communication skills.
- Dependability and honesty.
- Physical strength and agility sufficient to push loaded book trucks, to lift and carry up to 40 pounds, to access high and low shelves, and to work on one's feet for an entire shift.
- Ability to assume responsibility and work neatly, efficiently, and accurately without direct supervision.

Ability to

- Quickly develop a thorough knowledge of the Library's circulation system and security system.

- Quickly develop a thorough knowledge of circulation procedures and activities.
- Master complex, detailed routines.
- Understand and follow detailed oral and written instructions.
- Learn and follow all relevant Library policies.
- Complete work with speed and accuracy and handle frequent, sudden task changes effectively.
- Work with the public, visitors, and staff in a consistently friendly and courteous manner.
- Work in a team atmosphere in a consistently cooperative manner.
- Communicate effectively orally and in writing.
- Enforce Library's policies.
- Work full range of Library hours, including evenings and weekends. Maximum availability desirable.
- Work additional hours beyond those regularly scheduled as necessary and for the Library's needs.

Licenses, Certifications, and Memberships Required

- None.

CONTACTS: INTERNAL/EXTERNAL

- Daily contact with patrons and staff.
- Frequent contact with visitors.

SUPPLEMENTAL INFORMATION

Working Environment: *The work environment characteristics described herein are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

- The work will occur primarily at The Urbana Free Library.
- Occasionally, staff perform outreach at offsite locations.
- Typical work schedule could include any hours that the Library is open in addition to time before and afterwards, with flexibility depending on the needs of the department.

Physical Strength and Agility:

Physical strength and agility sufficient to perform assigned tasks:

- While performing the duties of this job, the employee is frequently required to walk, sit, and talk or hear.
- The employee is frequently required to use hands to handle, feel, or operate objects, tools, or controls; and reach with hands and arms.
- The employee is occasionally required to climb or balance; stoop, kneel, crouch, or crawl.
- The employee must occasionally lift and/or move up to 40 pounds.
- Vision: See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; visually inspect work in progress; and the ability to adjust focus to both print and electronic text.
- Hearing: Hear in the normal audio range with or without correction.
- Other: Lifting, pushing, and keyboarding.

The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

The Urbana Free Library is an Equal Opportunity Employer.

Last updated: August 26, 2022



INFORMATION ASSISTANT – FULL TIME/PART TIME

JOB DESCRIPTION

Department: Adult & Youth Services	Benefits: Yes (pro-rated for PT)
Division: N/A	Time: General minimum of 39 hours per week for Full Time and 20 hours per week for Part Time, including evening and weekend hours, in combination with hours in Circulation if also hired as a Circulation Clerk. Part-time employees may work additional hours above the 20 base hours as requested by their supervisors for the Library's needs.
Job Type: Civil Service (FT) ; Non-Civil Service (PT)	FLSA Status: Non-Exempt
Reports To: Director of Adult & Youth Services and Acquisitions	Pay Grade: 25

JOB SUMMARY

Information Assistants provide information services, bibliographic instruction, and computer lab assistance to patrons of all ages; participate in outreach and programming; provide excellent customer service; and carry out other duties as assigned. Duties are carried out under specific procedural guidelines and Information Assistants report to the Director of Adult & Youth Services and Acquisitions. Scheduling is coordinated in conjunction with hours worked in other departments, if applicable. A full-time or part-time Information Assistant also may create and/or maintain schedules for Library staff.

ESSENTIAL FUNCTIONS

- Provides routine information services for patrons.
- Assists patrons with the online catalog, the Internet, computer software, fax, and copier.
- Assists with creation of marketing and display materials.
- Participates in outreach and programming events.
- Upholds Library Rules of Behavior and other Library policies.
- May be a Public Notary.
- May create and/or maintain schedules for Library staff.
- Performs other related duties as assigned.

- Attends department and other meetings as scheduled.

JOB REQUIREMENTS

Education & Experience

- Training or experience in providing information services and technology assistance; experience in adult, teen, or children's services desirable.
- Experience with electronic resources desirable.
- Prior experience with the Polaris ILS desirable.
- High school diploma or equivalent required.
- 25 words per minute keyboarding skills.
- One year successful, continuous work experience.
- Public service, library, and supervisory experience all preferred.
- Bilingual skills (especially Spanish, French, or Chinese) desirable.

Knowledge of

- Knowledge of print and digital information sources.
- Creative reference and database skills.
- Working knowledge of basic word processing and spreadsheet software, plus additional Microsoft Office modules.

Skills

- Ability to quickly develop an effective working knowledge of the Library's automation system and of relevant databases.
- Good organizational, interpersonal, and decision-making skills.
- Excellent verbal and nonverbal communication skills.
- Dependability and honesty.
- Strong customer service orientation.
- Commitment to serving a diverse community.
- Physical strength and agility sufficient to perform assigned tasks.

Ability to

- Master complex, detailed routines.
- Understand and follow detailed oral and written instructions.
- Learn and follow all relevant Library policies.

- Complete work with speed and accuracy and handle frequent, sudden task changes effectively.
- Work with the public, visitors, and staff in a consistently friendly and courteous manner.
- Work in a team atmosphere in a consistently cooperative manner.
- Assume responsibility and work neatly, efficiently, and accurately without direct supervision.
- Communicate effectively orally and in writing.
- Enforce Library policies.
- Work full range of Library hours, including evenings and weekends. Maximum availability desirable.
- Work additional hours beyond those regularly scheduled as necessary and for the Library's needs.

Licenses, Certifications, and Memberships Required

- Willingness to become a Public Notary and to perform all related duties and functions.

CONTACTS: INTERNAL/EXTERNAL

- Daily contact with patrons and staff.
- Frequent contact with visitors and callers.

SUPPLEMENTAL INFORMATION

Working Environment: *The work environment characteristics described herein are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

- The work will occur primarily at The Urbana Free Library.
- Occasionally, staff perform outreach at offsite locations.
- Typical work schedule could include any hours that the Library is open in addition to time before and afterwards, with flexibility depending on the needs of the department.

Physical Strength and Agility:

Physical strength and agility sufficient to perform assigned tasks:

- While performing the duties of this job, the employee is frequently required to walk, sit, and talk or hear.
- The employee is occasionally required to use hands to handle, feel, or operate objects, tools, or controls; and reach with hands and arms.
- The employee is occasionally required to climb or balance; stoop, kneel, crouch, or crawl.

- The employee must occasionally lift and/or move up to 25 pounds.
- Vision: See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; visually inspect work in progress; and the ability to adjust focus to both print and electronic text.
- Hearing: Hear in the normal audio range with or without correction.
- Other: Lifting, pushing, and keyboarding.

The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

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Last updated: August 26, 2022

THE URBANA FREE LIBRARY
VACANCY – FULL-TIME CIRCULATION CLERK/INFORMATION ASSISTANT

- Application Deadline:** Priority consideration will be given to applications submitted by 11:59 p.m., **Tuesday, October 18, 2022**, but applications will be accepted until the position is filled.
- Wage Range:** \$18.4200-\$23.9456 per hour for Circulation Clerks, \$19.5417-\$25.4043 per hour for Information Assistants, dependent on experience.
- Benefits:** Annual paid leave starts at 160 hours of vacation, 24 hours of personal leave, 9.5 paid holidays, and up to 96 hours of sick leave.
Employee health insurance premium paid by the Library.
Retirement package through the Illinois Municipal Retirement Fund.
Dental, vision, life, and disability insurance paid by the employee, if desired.
- Minimum Requirements:** High school diploma or equivalent required.
25 wpm keyboarding skills.
One year successful, continuous work experience.
Public service, library, and supervisory experience all preferred.
Training or experience in providing information services and technology support; experience in adult, teen, or children's services desired.
Prior experience with Polaris ILS desired.
Bilingual skills (especially Spanish, French, or Chinese) desired.
- Job Summaries:** The Circulation Clerk performs detailed clerical work that involves the automated circulation of Library materials and the maintenance of related files. Circulation duties demand extensive public interaction, and the clerk must be continually positive and friendly while handling many tasks at once in a busy environment. Duties are carried out under specific procedural guidelines and policies, and the Circulation Clerk reports to the Circulation Manager or senior Circulation Clerks. A full-time or part-time Circulation Clerk may also be trained to work as an Information Assistant, with duties at the first-floor Information Desk, the second-floor adult Reference Desk and computer lab, and the children's Question Desk. A full-time or part-time Circulation Clerk also may create and/or maintain schedules for Library staff.
- Information Assistants provide information services, bibliographic instruction, and computer lab assistance to patrons of all ages; participate in outreach and programming; provide excellent customer service; and carry out other duties as assigned. Duties are carried out under specific procedural guidelines and Information Assistants report to the Director of Adult & Youth Services and Acquisitions. Scheduling is coordinated in conjunction with hours worked in other departments, if applicable. A full-time or part-time Information Assistant also may create and/or maintain schedules for Library staff.
- Hiring Process:**
1. Online application.
 2. Application scoring.
 3. Panel interviews.
 4. Contacting references.
 5. Selection/Appointment.
- Questions to:** Rachel Fuller, Director of Adult & Youth Services and Acquisitions, rfuller@urbanafree.org or 217.531.7070
Gretchen Webb, Circulation Manager, gwebb@urbanafree.org or 217.531.7090
- Apply online at:** <https://urbanaininois.us/jobs>

- Opinion Surveys
- 360 Feedback Survey
- Training Needs
- Performance

Disparate Impact Analysis

(an On-Line Internet based application)

Instructions: Please fill out the information into the form below. Once you have entered your data below, you may select the types of analysis to be conducted by checking the appropriate boxes. Then press the compute button at the bottom of the form to view the results.

Select the type of employment decision: Selection ▼

Enter a title for your report:

Circulation Clerk / Information Assistant Full Time - November 20

Sex

Number of Male
 Applicants
 Selected

Race

Number of Non-Minority
 Applicants
 Selected

Age

Number of Younger
 Applicants
 Selected

Disability

Number of Non-Disabled
 Applicants
 Selected

Number of Female
 Applicants
 Selected

Number of Minority
 Applicants
 Selected

Number of Older
 Applicants
 Selected

Number of Disabled
 Applicants
 Selected

- Adverse Impact
- Chi-Square
- Standard Deviation
- Confidence Intervals
- Probability Distribution

Select the Statistical Tests you wish to execute by checking or unchecking the boxes on the left. Then press the 'Compute' button below.

Compute

Display: Description of Statistic Interpretation of Results

Circulation Clerk / Information Assistant Full Time - November 2022

Adverse-Impact Report

Adverse Impact and the "four-fifths rule." - A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5ths) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact. *Uniform Guidelines on Employee Selection Procedures*

Rate of Female Applicants Selected	Rate of Male Applicants Selected	Adverse Impact Ratio for Female	Adverse Impact Ratio for Male
(2/49) = 0.0408	(0/19) = 0		
Adverse impact as defined by the 4/5ths rule was not found in the above data.			

Rate of Minority Applicants Selected	Rate of NonMinority Applicants Selected	Adverse Impact Ratio for Minority	Adverse Impact Ratio for NonMinority
(0/17) = 0	(2/56) = 0.0357		
Adverse impact as defined by the 4/5ths rule was not found in the above data.			

Chi-Square Report

Observed Expected	Selected	Not Selected	Row Totals
Male	0 0.5588	19 18.4412	19
Female	2 1.4412	47 47.5588	49
Column Total	2	66	68
Chi-Square = 0.799			
The value of the statistic is less than 3.841. This indicates that there is a 95 percent chance that these results have been obtained absent any form of bias. Therefore, you may conclude that these results fall within normal random variations and are not the result of bias.			

Observed Expected	Selected	Not Selected	Row Totals
NonMinority	2 1.5342	54 54.4658	56
Minority	0 0.4658	17 16.5342	17
Column Total	2	71	73
Chi-Square = 0.6242			
The value of the statistic is less than 3.841. This indicates that there is a 95 percent chance that these results have been obtained absent any form of bias. Therefore, you may conclude that these results fall within normal random variations and are not the result of bias.			

Standard-Deviation Report

The difference between the proportion of the protected class Selected and the proportion of all Applicants Selected has a normal distribution with a mean and standard deviation. The statistic is shown below:

$$\frac{(r / n) - p}{\sqrt{p * (1-p) / n} * \sqrt{1-q}}$$

*Analysis of proportion of Female Selected*where:

- **r = number of Female Selected.**
- **n = number of Selected (Female and Male).**
- **p = proportion of Applicants that are Female.**
- **q = proportion of Applicants Selected.**

	Selected	Not Selected	Row Totals
Male	0	19	19
Female	2	47	49
Column Total	2	66	68

$$r = 2$$

$$n = 49$$

$$p = 2 / 49 = 0.041$$

$$q = (2 + 0) / (49 + 19) = 0.029$$

Standard Deviation Statistic = 0.894

These results show that the proportion of Female Selected is 0.894 standard deviations above the proportion of Applicants Selected. A result of less than 2 standard deviations is generally considered non-significant.

*Analysis of proportion of Minority Selected*where:

- **r = number of Minority Selected.**
- **n = number of Selected (Minority and NonMinority).**
- **p = proportion of Applicants that are Minority.**
- **q = proportion of Applicants Selected.**

	Selected	Not Selected	Row Totals
NonMinority	2	54	56
Minority	0	17	17
Column Total	2	71	73

$$r = 0$$

$$n = 17$$

$$p = 0 / 17 = 0.000$$

$$q = (0 + 2) / (17 + 56) = 0.027$$

Standard Deviation Statistic = -0.79

These results show that the proportion of Minority Selected is -0.79 standard deviations below the proportion of Applicants Selected. A result of less than 2 standard deviations is generally considered non-significant.

Confidence Interval Report

The proportion of the protected class Selected has an expected value that would fall within a specified confidence interval.

The statistic is shown below:

Observed value = (r / n)

Expected value = p

Standard Deviation = $\sqrt{p * (1-p) / n} * \sqrt{1-q}$

Confidence Interval:

Lower Bound = $p - 1.96 * \text{Std Dev}$

Upper Bound = $p + 1.96 * \text{Std Dev}$

Analysis of proportion of Female Applicants Selectedwhere:

- r = number of Female Selected.
- n = number of Applicants Selected.
- p = proportion of Female among those Selected.
- q = proportion of Applicants Selected.

r = 2

n = 2

p = $(49/(49+19))=0.721$

q = $((2 + 0)/(49 + 19))=0.029$

(r/n)= $2/2=1$

The lower bound of the confidence interval is: $0.721-(1.96*0.313)=0.1079$

The upper bound of the confidence interval is: $0.721+(1.96*0.313)=1.3333$

Confidence Interval = 0.1079 to 1.3333

These results show that the proportion of Female Female (r/n=1) is contained in the confidence interval. Therefore a finding of disparate impact is not supported by this data.

Analysis of proportion of Minority Applicants Selectedwhere:

- r = number of Minority Selected.
- n = number of Applicants Selected.
- p = proportion of Minority among those Selected.
- q = proportion of Applicants Selected.

r = 0

n = 2

p = $(17/(17+56))=0.233$

q = $((0 + 2)/(17 + 56))=0.027$

(r/n)= $0/2=0$

The lower bound of the confidence interval is: $0.233-(1.96*0.295)=-0.3448$

The upper bound of the confidence interval is: $0.233+(1.96*0.295)=0.8106$

Confidence Interval = -0.3448 to 0.8106

These results show that the proportion of Minority Minority (r/n=0) is contained in the confidence interval. Therefore a finding of disparate impact is not supported by this data.

Probability Distribution Report

Number Female Selected	Number Male Selected	Rate of Female Applicants Selected	Rate of Male Applicants Selected	Adverse Impact Ratio of Female	Adverse Impact against Female ?	Probability	Cumulative Probability
0	2	(0/49)	(2/19)	0	YES	0.075066	0.075066
1	1	(1/49)	(1/19)	0.3878	YES	0.408692	0.483758
Selected->2	0	(2/49)	(0/19)		NO	0.516242	1

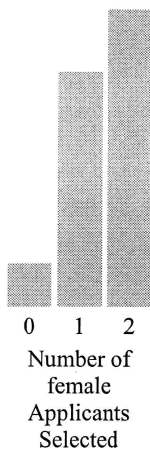
Given that 2 were Selected from a pool of 19 Male and 49 Female it was possible to have Selected from 0 to 2 females.

Adverse Impact would be found if you Selected 1 or fewer Female.

The probability of Adverse Impact occurring even if the employment decisions were random (i.e. unbiased) is 0.4838 (the sum of the probabilities of having Selected 1 or fewer Female).

Since the probability of Adverse Impact occurring even if the employment decisions were random (i.e. unbiased) is greater than 10%, an observed Adverse Impact may be not significant since the probability is greater than 1 in 10 that Adverse Impact would have occurred due to chance.

Probability Distribution of the variable: Number of Female Selected.



The probability distribution of having Selected from 0 to 2 females is displayed above. As can be seen, the most likely event (highest probability) to have occurred by chance (or decisions not affected by any form of bias) is to have Selected 2 female Applicants. This represents the mean of the probability distribution. Approximately half of the probability distribution is above this point and approximately half is below this point. The total area contained in the probability distribution is equal to 1. Thus, probabilities for each number of female Applicants Selected are a fraction of the total probability distribution. The larger areas of the distribution represent higher probabilities of occurrence. Adding the individual probabilities up to a certain point enable you to compute the probability of having Selected that many or fewer females Applicants. Adding the individual probabilities from a certain point and higher enable you to compute the probability of having Selected that many or more females Applicants.

The characteristics of the probability distribution--its mean and standard deviation--are a function of the number of female and male Applicants and the number of Applicants to be Selected. Though it is possible to have Selected from 0 to 2 female Applicants, the individual probabilities of having Selected each number of female Applicants can be computed and accumulated. As noted before, these individual probabilities are a function of the number of female and male Applicants and the number of Applicants to be Selected.

Using the distribution above, a 90 percent confidence interval on the variable 'Number of Female Selected' would have a lower bound of 0 and an upper bound of 2.

The significance of having Selected 2 or fewer Female is graphically displayed below.



As noted earlier, Adverse Impact, according to the 4/5ths rule, would be found if you Selected 1 or fewer female Applicants.

You have Selected 2 female Applicants. The probability of having Selected 2 or fewer Female is equal to the cumulative probability for having Selected 2 Female Applicants. The cumulative probability of having Selected 2 female Applicants is 1 and is graphically displayed, in red, above.

Since the probability is greater than 10%, we are unable to reject the hypothesis that the decisions occurred due to chance. Therefore, we must conclude that it is entirely possible that having Selected 2 or fewer female Applicants is an event that occurred due to chance and not from discriminatory actions by the employer.

Probability Distribution Report

Number Minority Selected	Number NonMinority Selected	Rate of Minority Applicants Selected	Rate of NonMinority Applicants Selected	Adverse Impact Ratio of Minority	Adverse Impact against Minority ?	Probability	Cumulative Probability
Selected->0	2	(0/17)	(2/56)	0	YES	0.585997	0.585997
1	1	(1/17)	(1/56)	3.2941	NO	0.362253	0.94825
2	0	(2/17)	(0/56)		NO	0.05175	1

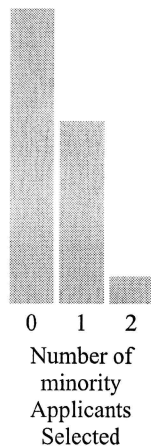
Given that 2 were Selected from a pool of 56 NonMinority and 17 Minority it was possible to have Selected from 0 to 2 minorities.

Adverse Impact would be found if you Selected 0 or fewer Minority.

The probability of Adverse Impact occurring even if the employment decisions were random (i.e. unbiased) is 0.586 (the sum of the probabilities of having Selected 0 or fewer Minority).

Since the probability of Adverse Impact occurring even if the employment decisions were random (i.e. unbiased) is greater than 10%, an observed Adverse Impact may be not significant since the probability is greater than 1 in 10 that Adverse Impact would have occurred due to chance.

Probability Distribution of the variable: Number of Minority Selected.

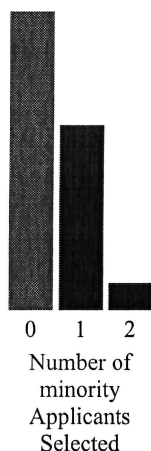


The probability distribution of having Selected from 0 to 2 minorities is displayed above. As can be seen, the most likely event (highest probability) to have occurred by chance (or decisions not affected by any form of bias) is to have Selected 0 minority Applicants. This represents the mean of the probability distribution. Approximately half of the probability distribution is above this point and approximately half is below this point. The total area contained in the probability distribution is equal to 1. Thus, probabilities for each number of minority Applicants Selected are a fraction of the total probability distribution. The larger areas of the distribution represent higher probabilities of occurrence. Adding the individual probabilities up to a certain point enable you to compute the probability of having Selected that many or fewer minorities Applicants. Adding the individual probabilities from a certain point and higher enable you to compute the probability of having Selected that many or more minorities Applicants.

The characteristics of the probability distribution--its mean and standard deviation--are a function of the number of minority and non-minority Applicants and the number of Applicants to be Selected. Though it is possible to have Selected from 0 to 2 minority Applicants, the individual probabilities of having Selected each number of minority Applicants can be computed and accumulated. As noted before, these individual probabilities are a function of the number of minority and non-minority Applicants and the number of Applicants to be Selected.

Using the distribution above, a 90 percent confidence interval on the variable 'Number of Minority Selected' would have a lower bound of 0 and an upper bound of 2.

The significance of having Selected 0 or fewer Minority is graphically displayed below.



As noted earlier, Adverse Impact, according to the 4/5ths rule, would be found if you Selected 0 *or fewer* minority Applicants.

You have Selected 0 minority Applicants. The probability of having Selected 0 *or fewer* Minority is equal to the cumulative probability for having Selected 0 Minority Applicants. The cumulative probability of having Selected 0 minority Applicants is 0.586 and is graphically displayed, in red, above.

Since the probability is greater than 10%, we are unable to reject the hypothesis that the decisions occurred due to chance. Therefore, we must conclude that it is entirely possible that having Selected 0 or fewer minority Applicants is an event that occurred due to chance and not from discriminatory actions by the employer.

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