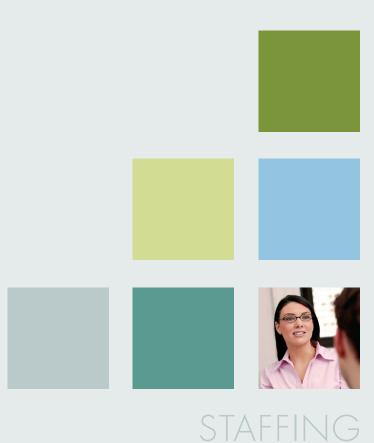


# Case Study— Structured Exercises

by Marc C. Marchese, Ph.D

**Employee Selection** 



# Employee Selection—Structured Exercise

# **ABOUT THIS STRUCTURED EXERCISE**

This exercise introduces undergraduate students to the concept of employee selection, its benefits to organizations and its complexities. At the end of this exercise, students will learn the steps required to design, implement and assess an employee selection process for a job position. This exercise is intermediate in difficulty level.

# **Learning Objectives**

During this exercise, students will learn to:

- 1. Choose selection methods relevant to a job.
- 2. Create various options to operationalize the selection methods.
- 3. Apply a scoring system to a set of applicants.
- 4. Devise a compensatory selection strategy and apply it.
- 5. Devise a noncompensatory selection strategy and apply it.
- 6. Conduct an adverse impact analysis.
- 7. Determine the decision-making accuracy for the selection system.
- 8. Reflect on the complexities of employee selection.



Many people without a background in human resource management mistakenly equate hiring with employee selection. *Hiring* is a broad concept that can take several approaches, such as offering a job to someone because of who he/she knows (e.g., my dad is the boss, so I got the job) or taking the first person who walks through the door to a get a "body" on the sales floor as soon as possible. *Employee selection* is a formal process in which the organization (1) identifies the tasks, duties and responsibilities (TDRs) associated with the job; (2) assesses applicants' readiness to successfully perform these TDRs; and (3) offers the job to the most qualified applicant for the position.

Organizations that adopt an employee selection approach to hiring must make a series of decisions to develop an effective process that identifies the most-qualified applicant.

#### 1. Review and Revise the Job Description

The first step to establish an employee selection process is to review and possibly revise the job description for the position. An accurate job description contains a job specification section, which includes the knowledge, skills, abilities and other characteristics (e.g., college degree, driver's license, relevant work experience), or KSAOs, needed for the job incumbent.

#### 2. Choose the Appropriate Selection Methods

After identifying the significant KSAOs, the next step is to choose the selection methods. Selection methods may include an employment interview, a personality inventory, submission of a résumé, etc. These selection methods are used to assess the identified KSAOs.

# 3. Create an Implementation Schedule

Once the selection criterion and methods are decided, an implementation schedule must be created. An implementation schedule determines the order in which selection methods are administered. After the schedule is determined, selection methods are applied to the applicant pool. As a result, some applicants will no longer be considered for the opening. In addition, a scoring system may be used to identify the strongest candidates. At the end of the selection process, the "best" applicant is selected and offered the job.

# 4. Assess the Effectiveness of the Selection System

Once the top applicant accepts the job, the selection process itself is complete. It is recommended, however, that the process be evaluated from time to time to ensure its effectiveness. When evaluating the selection system, two approaches can be used: an adverse impact analysis and/or a study to assess decision-making accuracy.

Even if a selection process treats applicants equally, a discrimination lawsuit may still result if the equal treatment had an unequal effect on a particular protected class. An **adverse impact analysis** can be conducted to determine if the selection system has an unequal effect based on a protected class of applicants.

The selection system can also be evaluated to assess its predictive accuracy for job success or **decision-making accuracy**. Even if the selection system is working properly in terms of nondiscrimination, it does not make sense for an organization to use a hiring approach that is not effective at predicting successful employees. In this exercise, you will have an opportunity to conduct both of these evaluation approaches.

# THE EXERCISE: DEVELOP, IMPLEMENT AND ASSESS AN EMPLOYEE SELECTION SYSTEM FOR A BANK TELLER POSITION

# **Part 1: Employee Selection and Assessment**

For this exercise, assume you are employed as an HR consultant for a mid-sized bank. The bank employs 200 tellers across its branches. The following is a partial job description and specification for the bank teller position, based on information obtained from O\*Net. O\*Net, or the Occupational Information Network Resource Center, is an online database containing information on hundreds of standardized and occupation-specific descriptors.

# **Bank Teller Tasks/Duties/Responsibilities**

- Cash checks for customers after verification of signatures and sufficient funds in the account.
- Receive checks and cash for deposit.
- Examine checks for endorsements and verify other information such as dates, bank names and identification.
- Enter customers' transactions into computers to record transactions.
- Count currency, coins and checks received to prepare them for deposit.
- Identify transaction mistakes when debits and credits do not balance.
- Balance currency, coins and checks in cash drawers at ends of shifts.

#### **KSAOs**

- Customer service skills.
- Basic math skills.
- Knowledge of verification requirements for checks.
- Ability to verify signatures and proper identification of customers.
- Ability to use accounting software.
- High school diploma required, associate's or bachelor's degree preferred.
- Previous work experience as a teller or related occupation (cashier, billing clerk) desired.

#### **Key statistics (from O\*Net):**

- The median 2005 wage for tellers was \$10.24 (hourly), \$21,300 (annually).
- In 2004, there were approximately 558,000 tellers in the United States.
- Projected growth for this job is slower than average.

Based on this information, the bank decides that the ideal candidate for this position will possess the following factors:

- 1. Have at least a high school **education** (bachelor's or associate's degree desirable).
- 2. Have **experience** as a teller or in a related field (cashier, billing clerk).
- 3. Be able to perform basic **math skills** related to banking (for example, count currency quickly and accurately and balance a cash drawer correctly).
- 4. Be **knowledgeable of verification** requirements for bank transactions (for example, errors in checks and proper identification to authorize transactions).
- 5. Have good **interpersonal skills** (for example, speak clearly, make good eye contact and develop rapport easily).
- 6. Be motivated to work.

# **Employee Selection Exercise**

[A] Choose the selection methods: Identify which selection method (e.g., résumé, interview, test, role-play exercise, reference check or personality inventory) you would recommend for each of the six factors listed above. You can use the same selection method more than once if you believe it is appropriate for more than one factor. Below is an example of how you might justify using an application form as an appropriate selection method for education.

1. Education – selection method: Application form

Justification: A question on the application form can ask applicants to describe their education. This selection method makes it easy and inexpensive to obtain this information.

2.	Work experience – selection method:
	Justification:
3.	Math skills – selection method:
	Justification:
<b>1</b> .	Verification knowledge – selection method:
	Justification:
5.	Interpersonal skills – selection method:
	Justification:
5.	Work motivation – selection method:
	Justification:

# **Teaching Notes:**

There are many possible answers to the questions asked in this section. Ideally, students should have sound reasons (e.g., time, cost, accuracy) to defend their selection methods.

A good selection method for factor #2 would be "application form," and it is also a good example of how the same method can have multiple uses. The organization can save time by examining the application form for factors #1 and #2 rather than evaluating résumés as well. For factors #3 and #4, a good response would be to use tests/inventories, because both of these factors are objective and could quickly and inexpensively be assessed through this method. The employment interview (particularly using situational and/or behaviorally based questions) is a strong response for factor #5 because it allows the interviewer to see how the applicant will or has handled interpersonal situations relevant to this job. For factor #6, there is no perfect answer. The employment interview is often used to assess motivation. Experienced interviewers know, though, that applicants could falsely appear to be highly motivated in order to land the job.

[B] Operationalize your assessments: Now that you have identified selection methods for the six factors, you must decide how to score each of these assessments. Based on your responses in part A ("Choose the selection methods"), think about how each factor may be scored and develop a point system for that factor.

A common approach to performing this task is to have some type of **numerical rating system** that may include one or two minimum requirements. Your task is to develop a rubric (point system) to "score" applicants for each of the six factors. In developing your rubric, review the job description information. The "education" factor is provided for you below. Remember that tellers need to have a high school diploma, according to the job specification. Applicants who do not meet this requirement are rejected. College degrees are preferred and receive more points in the example below.

1. Education assessed via application form.

My assessment:

Points	Highest Level of Education
10	Bachelor's level or higher
6	Associate's degree
3	High school diploma
Reject	Less than high school diploma

2.	Work experience assessed via
	My assessment:
3.	Math skills assessed via
	My assessment:
4.	Verification knowledge assessed via
	My assessment:
5.	Interpersonal skills assessed via
	My assessment:
6.	Work motivation assessed via
	My assessment:

# **Teaching Notes:**

Students may find this part of the exercise simple at first but will soon realize how complex it is to operationalize KSAOs. The challenge is to assign numbers to opinions. Ask students to think about each factor in terms a scale of highly desirable, good, satisfactory, marginal and unacceptable. For example, you could pose the following scenario to the class:

"Assuming everything else is equal, is an applicant with 14 years of work experience significantly more desirable than an applicant with nine years? If yes, then make sure your rubric does not include both values in the same numerical category. If no, then your rubric should include both values in the same category."

Expect some students to make very specific scoring rubrics, which will make it difficult to handle the diversity of information (e.g., internship as work experience), whereas others may define categories so broadly that very different responses receive the same score.

[C] Apply your assessment systems: Listed below are applicants for the teller position. Based on your answers in part B ("Operationalize your assessments"), score each of the applicants.

#### Sample applicant information

	Maria	Lori	Steve	Jenna
Education	Associate's degree	H.S. diploma	G.E.D.	Bachelor's degree
Work experience	4 years as a cashier	1 year as a teller	5 years as a sales clerk at a national retail clothing store chain	Completed a semester internship at a bank
Math skills	Very strong	Marginal	Satisfactory	Good
Verification knowledge	Marginal	Strong	Satisfactory	Strong
Interpersonal skills	Very strong	Good	Good	Good
Work motivation	Good	Good	Marginal	Strong

# Score the applicants

	Maria	Lori	Steve	Jenna
Education	6	3	3	10
Work experience				
Math skills				
Verification				
knowledge				
Interpersonal skills				
Work motivation				

- (a) Which applicants scored best based on the scores you entered into the table?
- (b) What difficulties did you have applying your scoring system?
- (c) Based on this applicant data, would you make any changes to your rubrics? If yes, please describe.

# **Teaching Notes:**

This section puts students' rubrics to the test. Some students will struggle to assign numbers based on the given data. For example, the education rubric does not include GED. Some students will want to revise their scoring system to be more specific to distinguish among varying levels of the factors (e.g., students will likely want an internship to receive more credit than no work experience at all). Others will revise their scoring system to be more general to make it easier to classify certain pieces of information. Students' answers to question A will be worth noting when they complete this section of the exercise. It is likely the responses to question A will not coincide with the answers to the next part of this exercise.

# Part 2: Selection Strategy

Now that you have created a system to assess applicants on the six key factors, you must decide how to process this information. Employee selection systems have multiple assessments, and organizations must decide how to integrate them.

One assessment strategy is **compensatory** and allows an applicant's strengths to compensate for weaknesses in another area. For example, a recent college graduate may score highly in the educational requirements for a job opening but score low in terms of work experience. A compensatory strategy will help the recent graduate's limited work experience be "compensated" by his or her high level of education.

A compensatory selection strategy may be unweighted or weighted. In an **unweighted** strategy, all of the factors have the same highest score possible and scores are simply added together. The applicant with the highest score is considered the best and offered the job. To apply this strategy to this exercise, convert all six factors to a possible high score of 100. For example, multiply each education score by 10 (highest score possible for education = 10, so  $10 \times 10 = 100$ ). Then, add the scores for each applicant.

	Maria	Lori	Steve	Jenna
Education	60	30	30	100
Work experience				
Math skills				
Verification knowledge				
Interpersonal skills				
Work motivation				
TOTAL				

1. Who scored the highest?	
2. Do you think this person is the best applicant? Why or why not?	
2 777	
3. Who scored the lowest?	

# **Teaching Notes:**

Some students might have difficulty converting the scores to a 100-point scale, especially if their scoring systems are, for example, on a 1-7 scale. If students have trouble converting to a 100-point scale, ask them to use a calculator to find the percentage and record that in the table above (e.g., 3 out of 7 = 43%). Recommend that students share their answers to questions 1 and 3 with the class. Because of different scoring approaches, students should have different answers to these questions. Check to see if the class can come to a consensus before moving on.

You have just completed an unweighted compensatory approach to employee selection. The other option is a **weighted** compensatory approach. In this approach, one or two factors are identified as more important than the other factors and, hence, deserve more weight in deciding the best applicant. Additionally, one or two factors may be considered least important and would have less weight.

To try this out, answer the following questions:

- 1. Which of the six factors do you consider the **most important** in terms of selecting bank tellers? Defend your choice.
- 2. Based on your answer to the first question, double the points for the four applicants for this factor. Record the answers in the table below.
- 3. Of the remaining five factors, which two do you see as **least important** for selecting bank tellers? Defend these choices.
- 4. Based on your answer to question 3, divide the points in half for the four applicants for these two factors. Record the answers in the table below.
- 5. For the three factors not mentioned in questions 1 and 3, copy the scores from the previous table into the table below. Total the scores for the four applicants.

	Maria	Lori	Steve	Jenna
Education				
Work experience				
Math skills				
Verification knowledge				
Interpersonal skills				
Work motivation				
TOTAL				

1. Who scored the highest?	
2. Do you think this person is the best applicant? Why or why not?	
2. When a seed the learners	
3. Who scored the lowest?	

4. When you compare your answers using the unweighted to the weighted approach, which approach do you think was better? Why?

#### **Teaching Notes:**

Because students must decide which factors are most and least important, this section will generate interesting debate among the class. You may want to mention to the class that some factors, like verification of knowledge, can be easily taught, whereas other factors are more challenging (e.g., interpersonal skills). If your class is composed of mostly traditional students, have them discuss how valuable education is compared to work experience and the implications on their own values systems. Lastly, expect that most students will initially prefer the weighted over the unweighted option. If there is debate about the importance of the factors, some students may change their mind on this question.

The other selection strategy is called **noncompensatory**. Instead of adding the scores on all of the assessments, a noncompensatory strategy establishes cutoffs for each assessment. An applicant who fails to meet or exceed a cutoff is rejected from the selection process. The cutoff can be a passing score on a test/inventory, a rating level (e.g., good) or a characteristic relevant to the job (e.g., valid driver's license). The job description is used as a guide to determine what the cutoff(s) should be.

For example, in terms of education for the teller position, the job specification indicates that a high school diploma is required, and so the cutoff is established at this level. The challenge occurs for factors that do not have clear guidance as to the cutoffs. If a requirement is not specified in the job description, then subject matter experts (people knowledgeable about the job—usually either long-term incumbents or supervisors) determine cutoffs based on their own experience with the job. They will also consider the expected qualifications of applicants when determining these cutoffs.

Based on your knowledge and experience with bank tellers, create a cutoff for each of the six factors in the table below.

	Cutoff for each assessment
Education	The applicant must have at least a high school diploma or GED.
Work experience	
Math skills	
Verification knowledge	
Interpersonal skills	
Work motivation	

Similar to the compensatory strategy, there are two options for a noncompensatory approach. One noncompensatory option is called a **multiple cutoff approach**. In this approach, cutoffs are applied for every factor for all applicants. Apply your cutoffs listed in the table above to the four applicants.

1 1	Which	applicant(	c) remain	162
١.١	VVIIICII	addincame	s) remain	185

- 2. If no applicant met all of the cutoffs, would you rather lower the cutoffs or restart the recruiting process? Why?
- 3. If many applicants exceed the cutoffs, would you rather increase the cutoff levels, hire all remaining applicants (if possible) or take a compensatory approach for those that exceeded all of the cutoffs? Why?

# **Teaching Notes:**

The challenge of this section is for students to determine cutoffs for the subjective factors, especially the last two. This section will help students identify requirements for a job versus preferences for a job. Should an employer reject an applicant because of a perceived weakness in one area? Some students may not like such absolute standards and set low cutoffs, resulting in difficulty identifying the best choice. Other students will set the bar too high and no one will remain, which does not help the organization meet its staffing needs.

Another noncompensatory method is called a **multiple hurdle approach**. In this approach, cutoffs are arranged sequentially. The first cutoff is applied to the entire applicant pool. Those applicants who fail to meet or exceed the cutoff are rejected. The remaining applicants are then subjected to the next cutoff, where more applicants will be rejected. This process reduces the applicant pool at each hurdle. At the final hurdle, only a select few will remain.

Organizations usually set cutoffs that are less costly and more objective as the initial hurdles. More subjective and often more time-consuming assessments are set at the end of the selection process. The multiple hurdle approach saves organizations money because not all of the applicants are assessed on all of the factors. This approach, however, can be time-consuming because each cutoff must be applied and then evaluated before moving to the next cutoff.

Reflect on your cutoffs and arrange them in the table below to establish your own multiple hurdle system.

#### Multiple hurdle system

	Rejected applicant
Hurdle 1: Education	None, all applicants have at least high school diploma or GED.
Hurdle 2:	
Hurdle 3:	
Hurdle 4:	
Hurdle 5:	
Hurdle 6:	

- 1. At the end of hurdle 6, which applicant(s) remained?
- 2. What would you recommend if you had no remaining applicants or several applicants remaining?
- 3. Do you prefer this method over the multiple cutoff method? Why or why not?

# **Teaching Notes:**

This section will generate discussion about the order of the cutoffs. Students will likely prefer to list the more objective factors first and save the subjective factors for the end. Discuss with the class the possibility of combining the last two sections. The six cutoffs could be applied in two or three stages. For example, the education and work experience cutoffs could be applied to the entire applicant pool, then the verification and math skills cutoffs to the remaining applicant pool, and finally, the remaining two cutoffs could be applied to the remaining applicant pool.

# Part 3: Evaluating the Selection System

You have now created a selection system for the job of a teller.

The final step in a selection system is to make sure the system works properly.

As discussed in the overview, there are two ways to ensure that the system is working. One approach takes a legal perspective to ensure that organizations do not discriminate in hiring.

There are two types of discrimination: disparate treatment and disparate impact (also known as adverse impact). **Disparate treatment discrimination** refers to treating applicants differently based on a protected characteristic (for example, age, sex, national origin, religion). An example of disparate treatment discrimination is not considering women for leadership positions. This type of discrimination is considered intentional and therefore easy to identify and correct or prevent.

Disparate impact discrimination is considered unintentional. This form of discrimination indicates that all applicants were treated equally; however, this equal treatment had an unequal effect related to a protected characteristic. The most common approach to identify adverse impact is to apply the **four-fifths rule**. The four-fifths rule states that adverse impact exists if the selection ratio of the minority group is less than four-fifths (or 80 percent) of the selection ratio of the majority group. A selection ratio is the percentage of those hired based on the percentage of those who applied for the job. Selection ratios must be calculated for each protected group. The selection ratio of the minority group is compared with the selection ratio of the majority group (often "males" or "Caucasians"). The simplest way to calculate adverse impact is to divide the selection ratio of the minority group by the selection ratio of the majority group. If the result is less than 80%, then adverse impact exists.

For example, the bank collected the following data over the past five years:

Males applied = 200 Females applied = 300 Males hired = 40 Females hired = 45

Based on this information, the selection ratio for men is 20% (40/200), whereas the selection ratio for women is 15% (45/300). Dividing the minority group (the group with the lower selection ratio, women) by the majority group (in this case, men) results in an answer of 75% (15%/20%). Since the result is less than 80%, adverse impact exists. The organization needs to explore the selection process to identify what may be the cause of this disparity.

In this part of the exercise, you will conduct this analysis.

The bank compiled selection data on three racial groups during the past year: Caucasians, African-Americans and Latinos. The data is as follows:

	Number applied	Number hired
Caucasians	90	27
African-Americans	50	10
Latinos	40	10

1.	The	selection	ratios	for	the	three	groups	are

Caucasians =	
African-Americans =	
Latinos =	

- 2. Does adverse impact exist when you compare the African-American applicant pool with the Caucasian applicant pool? Show your work.
- 3. Does adverse impact exist when you compare the Latino applicant pool with the Caucasian applicant pool? Show your work.

# **Teaching Notes:**

The answers to question 1 are 30%, 20% and 25% respectively. For question 2, the answer is that adverse impact exists because 20% divided by 30% = 67%. Question 3 is the reverse because 25% divided by 30% = 83%. Therefore, the data analysis shows evidence of adverse impact discrimination against African-Americans but not against Latinos.

Another way to assess the effectiveness of the selection system is to examine the **decision-making accuracy**. Employee selection is basically a system to predict which applicants will succeed on the job. Highly qualified applicants are expected to perform well on the job. Similarly, seemingly less qualified applicants are not expected to perform well on the job. Unfortunately, the hiring process is complex. Some applicants can put on a "good show" and still be mediocre employees, whereas other applicants may interview poorly but still be excellent employees. Organizations cannot assume the selection process is working well without collecting and analyzing data.

One option to calculate the decision-making accuracy of a selection system is to classify applicants into one of two categories: strong applicants (ones who appear to be highly qualified and are predicted to do the job well—a good hire) and weak applicants (ones who do not appear to be highly qualified and are predicted to not do the job well—a poor hire). Once hired and after sufficient time (typically six months to a year) has passed, employees can also be classified into two categories: good hire or poor hire. After all of this data is collected, the overall decision-making accuracy of the selection process (the **total hit ratio**) can be calculated as the percentage of correct predictions.

The table below shows data about the 200 tellers employed at the bank.

	Poor hire	Good hire	Totals
Strong applicant	20	80	100
Weak applicant	70	30	100

- 1. Calculate the total hit ratio by adding the correct predictions and then dividing that number by the total number of decisions made. What is this percentage? Do you think this percentage is impressive?
- 2. What percentage of weak applicants turned out to be good hires?
- 3. What percentage of strong applicants turned out to be good hires? This percentage is known as the **positive hit ratio**.
- 4. Compare your answers to questions 2 and 3. Do you think the bank's system is effective?

# **Teaching Notes:**

The answer to question 1 is 75% ((70 + 80) / 200). The answer to question 2 is 30% (30/100). The answer for question 3 is 80% (80/100). If student responses are correct for these questions, then their responses should be similar for question 4—the system is effective. Although this is a simplistic evaluation of the selection system as opposed to a regression/correlation approach, this exercise is intended to have students think about evaluating the success of this important HR function in their own organizations.

There may be several questions about this evaluation process. Students may ask how organizations go about classifying employees into one of these two categories (good or poor hires). Because industries, organizations and jobs differ, there is no simple answer to this question. Ask students to speculate what factors they would use to classify a teller as a good hire (e.g., absenteeism, number of transaction errors, supervisor ratings) if they were the bank manager. Further, students might ask about interpreting the percentages. For example, is 75% correct good enough? Ultimately, this is a subjective decision; however, in a business world that embraces continuous improvement, this percentage can be used as a baseline to judge revisions to the selection process.

# Part 4: Reflection on Employee Selection

- 1. You have made a number of decisions in creating, implementing and evaluating a selection system for bank tellers. Which of these decisions do you think is most critical? Why?
- 2. An employee selection approach to hiring is more complex than hiring employees based on who they know or casually scanning a résumé and asking a few "off the cuff" questions for an interview. When you think about your work experiences, do you think the organizations you worked for took an employee selection approach when hiring?
- 3. If you answered yes to question 2, do you think the organization was effective in hiring employees? If you answered no to question 2, do you think the organization should have adopted a selection approach to hiring? Explain your response.
- 4. What do you perceive as the overall advantages and disadvantages of an employee selection approach to hiring?
- 5. After reflecting on this exercise, would you recommend an employee selection process to hiring for virtually any job? Why or why not?

#### **Teaching Notes:**

Many traditional undergraduates will find that their hiring experiences did not include an employee selection process. Because of this, some students may say that a selection approach to hiring is unrealistic or unnecessary, particularly for the job used in this exercise or for the kinds of jobs they have had so far. Remind students that one of the most significant issues facing HR today is talent management. Explain that it is hard to manage talent if the people you hire don't have the talent to do the fundamentals of the job. In the final analysis, this selection approach works best for the organization and its employees.

# Case Study—Structured Exercises

**Employee Selection** 



# Employee Selection—Structured Exercise

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This exercise introduces undergraduate students to the concept of employee selection, its benefits to organizations and its complexities. At the end of this exercise, students will learn the steps required to design, implement and assess an employee selection process for a job position. This exercise is intermediate in difficulty level.

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During this exercise, students will learn to:

- 1. Choose selection methods relevant to a job.
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- 5. Devise a noncompensatory selection strategy and apply it.
- 6. Conduct an adverse impact analysis.
- 7. Determine the decision-making accuracy for the selection system.
- 8. Reflect on the complexities of employee selection.

#### INTRODUCTION TO EMPLOYEE SELECTION

Many people without a background in human resource management mistakenly equate hiring with employee selection. *Hiring* is a broad concept that can take several approaches, such as offering a job to someone because of who he/she knows (e.g., my dad is the boss, so I got the job) or taking the first person who walks through the door to a get a "body" on the sales floor as soon as possible. *Employee selection* is a formal process in which the organization (1) identifies the tasks, duties and responsibilities (TDRs) associated with the job; (2) assesses applicants' readiness to successfully perform these TDRs; and (3) offers the job to the most qualified applicant for the position.

Organizations that adopt an employee selection approach to hiring must make a series of decisions to develop an effective process that identifies the most-qualified applicant.

#### 1. Review and Revise the Job Description

The first step to establish an employee selection process is to review and possibly revise the job description for the position. An accurate job description contains a job specification section, which includes the knowledge, skills, abilities and other characteristics (e.g., college degree, driver's license, relevant work experience), or KSAOs, needed for the job incumbent.

# 2. Choose the Appropriate Selection Methods

After identifying the significant KSAOs, the next step is to choose the selection methods. Selection methods may include an employment interview, a personality inventory, submission of a résumé, etc. These selection methods are used to assess the identified KSAOs.

# 3. Create an Implementation Schedule

Once the selection criterion and methods are decided, an implementation schedule must be created. An implementation schedule determines the order in which selection methods are administered. After the schedule is determined, selection methods are applied to the applicant pool. As a result, some applicants will no longer be considered for the opening. In addition, a scoring system may be used to identify the strongest candidates. At the end of the selection process, the "best" applicant is selected and offered the job.

#### 4. Assess the Effectiveness of the Selection System

Once the top applicant accepts the job, the selection process itself is complete. It is recommended, however, that the process be evaluated from time to time to ensure its effectiveness. When evaluating the selection system, two approaches can be used: an adverse impact analysis and/or a study to assess decision-making accuracy.

Even if a selection process treats applicants equally, a discrimination lawsuit may still result if the equal treatment had an unequal effect on a particular protected class. An **adverse impact analysis** can be conducted to determine if the selection system has an unequal effect based on a protected class of applicants.

The selection system can also be evaluated to assess its predictive accuracy for job success or **decision-making accuracy**. Even if the selection system is working properly in terms of nondiscrimination, it does not make sense for an organization to use a hiring approach that is not effective at predicting successful employees. In this exercise, you will have an opportunity to conduct both of these evaluation approaches.



# THE EXERCISE: DEVELOP, IMPLEMENT AND ASSESS AN EMPLOYEE SELECTION SYSTEM FOR A BANK TELLER POSITION

#### Part 1: Employee Selection and Assessment

For this exercise, assume you are employed as an HR consultant for a mid-sized bank. The bank employs 200 tellers across its branches. The following is a partial job description and specification for the bank teller position, based on information obtained from O\*Net. O\*Net, or the Occupational Information Network Resource Center, is an online database containing information on hundreds of standardized and occupation-specific descriptors.

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- Receive checks and cash for deposit.
- Examine checks for endorsements and verify other information such as dates, bank names and identification.
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- Count currency, coins and checks received to prepare them for deposit.
- Identify transaction mistakes when debits and credits do not balance.
- Balance currency, coins and checks in cash drawers at ends of shifts.

#### **KSAOs**

- Customer service skills.
- Basic math skills.
- Knowledge of verification requirements for checks.
- Ability to verify signatures and proper identification of customers.
- Ability to use accounting software.
- High school diploma required, associate's or bachelor's degree preferred.
- Previous work experience as a teller or related occupation (cashier, billing clerk) desired.

# Key statistics (from O\*Net):

- The median 2005 wage for tellers was \$10.24 (hourly), \$21,300 (annually).
- In 2004, there were approximately 558,000 tellers in the United States.
- Projected growth for this job is slower than average.

Based on this information, the bank decides that the ideal candidate for this position will possess the following factors:

- 1. Have at least a high school **education** (bachelor's or associate's degree desirable).
- 2. Have **experience** as a teller or in a related field (cashier, billing clerk).
- 3. Be able to perform basic **math skills** related to banking (for example, count currency quickly and accurately and balance a cash drawer correctly).
- 4. Be **knowledgeable of verification** requirements for bank transactions (for example, errors in checks and proper identification to authorize transactions).
- 5. Have good **interpersonal skills** (for example, speak clearly, make good eye contact and develop rapport easily).
- 6. Be **motivated** to work.

# **Employee Selection Exercise**

[A] Choose the selection methods: Identify which selection method (e.g., résumé, interview, test, role-play exercise, reference check or personality inventory) you would recommend for each of the six factors listed above. You can use the same selection method more than once if you believe it is appropriate for more than one factor. Below is an example of how you might justify using an application form as an appropriate selection method for education.

1. Education – selection method: Application form

Justification: A question on the application form can ask applicants to describe their education. This selection method makes it easy and inexpensive to obtain this information.

2.	Work experience – selection method:
	Justification:
3.	Math skills – selection method:
	Justification:
4.	Verification knowledge – selection method:
	Justification:
5.	Interpersonal skills – selection method:
	Justification:
6.	Work motivation – selection method:
	Justification:

[B] Operationalize your assessments: Now that you have identified selection methods for the six factors, you must decide how to score each of these assessments. Based on your responses in part A ("Choose the selection methods"), think about how each factor may be scored and develop a point system for that factor.

A common approach to performing this task is to have some type of **numerical rating system** that may include one or two minimum requirements. Your task is to develop a rubric (point system) to "score" applicants for each of the six factors. In developing your rubric, review the job description information. The "education" factor is provided for you below. Remember that tellers need to have a high school diploma, according to the job specification. Applicants who do not meet this requirement are rejected. College degrees are preferred and receive more points in the example below.

1. Education assessed via application form.

My assessment:

Points	Highest Level of Education
10	Bachelor's level or higher
6	Associate's degree
3	High school diploma
Reject	Less than high school diploma

2.	Work experience assessed via
	My assessment:
3.	Math skills assessed via  My assessment:
4.	Verification knowledge assessed via  My assessment:
5.	Interpersonal skills assessed via My assessment:
6.	Work motivation assessed via

My assessment:

[C] Apply your assessment systems: Listed below are applicants for the teller position. Based on your answers in part B ("Operationalize your assessments"), score each of the applicants.

# Sample applicant information

	Maria	Lori	Steve	Jenna
Education	Associate's degree	H.S. diploma	G.E.D.	Bachelor's degree
Work experience	4 years as a cashier	1 year as a teller	5 years as a sales clerk at a national retail clothing store chain	Completed a semester internship at a bank
Math skills	Very strong	Marginal	Satisfactory	Good
Verification knowledge	Marginal	Strong	Satisfactory	Strong
Interpersonal skills	Very strong	Good	Good	Good
Work motivation	Good	Good	Marginal	Strong

# Score the applicants

	Maria	Lori	Steve	Jenna
Education	6	3	3	10
Work experience				
Math skills				
Verification				
knowledge				
Interpersonal skills				
Work motivation				

- (a) Which applicants scored best based on the scores you entered into the table?
- (b) What difficulties did you have applying your scoring system?
- (c) Based on this applicant data, would you make any changes to your rubrics? If yes, please describe.

# **Part 2: Selection Strategy**

Now that you have created a system to assess applicants on the six key factors, you must decide how to process this information. Employee selection systems have multiple assessments, and organizations must decide how to integrate them.

One assessment strategy is **compensatory** and allows an applicant's strengths to compensate for weaknesses in another area. For example, a recent college graduate may score highly in the educational requirements for a job opening but score low in terms of work experience. A compensatory strategy will help the recent graduate's limited work experience be "compensated" by his or her high level of education.

A compensatory selection strategy may be unweighted or weighted. In an **unweighted** strategy, all of the factors have the same highest score possible and scores are simply added together. The applicant with the highest score is considered the best and offered the job. To apply this strategy to this exercise, convert all six factors to a possible high score of 100. For example, multiply each education score by 10 (highest score possible for education = 10, so  $10 \times 10 = 100$ ). Then, add the scores for each applicant.

	Maria	Lori	Steve	Jenna
Education	60	30	30	100
Work experience				
Math skills				
Verification knowledge				
Interpersonal skills				
Work motivation				
TOTAL				

1. Who scored the highest?	
2. Do you think this person is the best applicant? Why or why not?	
3. Who scored the lowest?	

You have just completed an unweighted compensatory approach to employee selection. The other option is a **weighted** compensatory approach. In this approach, one or two factors are identified as more important than the other factors and, hence, deserve more weight in deciding the best applicant. Additionally, one or two factors may be considered least important and would have less weight.

To try this out, answer the following questions:

- 1. Which of the six factors do you consider the **most important** in terms of selecting bank tellers? Defend your choice.
- 2. Based on your answer to the first question, double the points for the four applicants for this factor. Record the answers in the table below.
- 3. Of the remaining five factors, which two do you see as **least important** for selecting bank tellers? Defend these choices.
- 4. Based on your answer to question 3, divide the points in half for the four applicants for these two factors. Record the answers in the table below.
- 5. For the three factors not mentioned in questions 1 and 3, copy the scores from the previous table into the table below. Total the scores for the four applicants.

	Maria	Lori	Steve	Jenna
Education				
Work experience				
Math skills				
Verification knowledge				
Interpersonal skills				
Work motivation				
TOTAL				

1. Who scored the highest?	
e	

- 2. Do you think this person is the best applicant? Why or why not?
- 3. Who scored the lowest?
- 4. When you compare your answers using the unweighted to the weighted approach, which approach do you think was better? Why?

The other selection strategy is called **noncompensatory**. Instead of adding the scores on all of the assessments, a noncompensatory strategy establishes cutoffs for each assessment. An applicant who fails to meet or exceed a cutoff is rejected from the selection process. The cutoff can be a passing score on a test/inventory, a rating level (e.g., good) or a characteristic relevant to the job (e.g., valid driver's license). The job description is used as a guide to determine what the cutoff(s) should be.

For example, in terms of education for the teller position, the job specification indicates that a high school diploma is required, and so the cutoff is established at this level. The challenge occurs for factors that do not have clear guidance as to the cutoffs. If a requirement is not specified in the job description, then subject matter experts (people knowledgeable about the job—usually either long-term incumbents or supervisors) determine cutoffs based on their own experience with the job. They will also consider the expected qualifications of applicants when determining these cutoffs.

Based on your knowledge and experience with bank tellers, create a cutoff for each of the six factors in the table below.

	Cutoff for each assessment
Education	The applicant must have at least a high school diploma or GED.
Work experience	
Math skills	
Verification knowledge	
Interpersonal skills	
Work motivation	

Similar to the compensatory strategy, there are two options for a noncompensatory approach. One noncompensatory option is called a **multiple cutoff approach**. In this approach, cutoffs are applied for every factor for all applicants. Apply your cutoffs listed in the table above to the four applicants.

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- 2. If no applicant met all of the cutoffs, would you rather lower the cutoffs or restart the recruiting process? Why?
- 3. If many applicants exceed the cutoffs, would you rather increase the cutoff levels, hire all remaining applicants (if possible) or take a compensatory approach for those that exceeded all of the cutoffs? Why?

Another noncompensatory method is called a **multiple hurdle approach**. In this approach, cutoffs are arranged sequentially. The first cutoff is applied to the entire applicant pool. Those applicants who fail to meet or exceed the cutoff are rejected. The remaining applicants are then subjected to the next cutoff, where more applicants will be rejected. This process reduces the applicant pool at each hurdle. At the final hurdle, only a select few will remain.

Organizations usually set cutoffs that are less costly and more objective as the initial hurdles. More subjective and often more time-consuming assessments are set at the end of the selection process. The multiple hurdle approach saves organizations money because not all of the applicants are assessed on all of the factors. This approach, however, can be time-consuming because each cutoff must be applied and then evaluated before moving to the next cutoff.

Reflect on your cutoffs and arrange them in the table below to establish your own multiple hurdle system.

# Multiple hurdle system

	Rejected applicant
Hurdle 1: Education	None, all applicants have at least high school diploma or GED.
Hurdle 2:	
Hurdle 3:	
Hurdle 4:	
Hurdle 5:	
Hurdle 6:	

- 1. At the end of hurdle 6, which applicant(s) remained?
- 2. What would you recommend if you had no remaining applicants or several applicants remaining?
- 3. Do you prefer this method over the multiple cutoff method? Why or why not?

# Part 3: Evaluating the Selection System

You have now created a selection system for the job of a teller.

The final step in a selection system is to make sure the system works properly.

As discussed in the overview, there are two ways to ensure that the system is working. One approach takes a legal perspective to ensure that organizations do not discriminate in hiring.

There are two types of discrimination: disparate treatment and disparate impact (also known as adverse impact). **Disparate treatment discrimination** refers to treating applicants differently based on a protected characteristic (for example, age, sex, national origin, religion). An example of disparate treatment discrimination is not considering women for leadership positions. This type of discrimination is considered intentional and therefore easy to identify and correct or prevent.

Disparate impact discrimination is considered unintentional. This form of discrimination indicates that all applicants were treated equally; however, this equal treatment had an unequal effect related to a protected characteristic. The most common approach to identify adverse impact is to apply the **four-fifths rule**. The four-fifths rule states that adverse impact exists if the selection ratio of the minority group is less than four-fifths (or 80 percent) of the selection ratio of the majority group. A selection ratio is the percentage of those hired based on the percentage of those who applied for the job. Selection ratios must be calculated for each protected group. The selection ratio of the minority group is compared with the selection ratio of the majority group (often "males" or "Caucasians"). The simplest way to calculate adverse impact is to divide the selection ratio of the minority group by the selection ratio of the majority group. If the result is less than 80%, then adverse impact exists.

For example, the bank collected the following data over the past five years:

Males applied = 200 Females applied = 300 Males hired = 40 Females hired = 45

Based on this information, the selection ratio for men is 20% (40/200), whereas the selection ratio for women is 15% (45/300). Dividing the minority group (the group with the lower selection ratio, women) by the majority group (in this case, men) results in an answer of 75% (15%/20%). Since the result is less than 80%, adverse impact exists. The organization needs to explore the selection process to identify what may be the cause of this disparity.

In this part of the exercise, you will conduct this analysis.

The bank compiled selection data on three racial groups during the past year: Caucasians, African-Americans and Latinos. The data is as follows:

	Number applied	Number hired
Caucasians	90	27
African-Americans	50	10
Latinos	40	10

1. The selection ratios for the three groups are:

Caucasians =	
African-Americans =	
Latinos =	

- 2. Does adverse impact exist when you compare the African-American applicant pool with the Caucasian applicant pool? Show your work.
- 3. Does adverse impact exist when you compare the Latino applicant pool with the Caucasian applicant pool? Show your work.

Another way to assess the effectiveness of the selection system is to examine the **decision-making accuracy**. Employee selection is basically a system to predict which applicants will succeed on the job. Highly qualified applicants are expected to perform well on the job. Similarly, seemingly less qualified applicants are not expected to perform well on the job. Unfortunately, the hiring process is complex. Some applicants can put on a "good show" and still be mediocre employees, whereas other applicants may interview poorly but still be excellent employees. Organizations cannot assume the selection process is working well without collecting and analyzing data.

One option to calculate the decision-making accuracy of a selection system is to classify applicants into one of two categories: strong applicants (ones who appear to be highly qualified and are predicted to do the job well—a good hire) and weak applicants (ones who do not appear to be highly qualified and are predicted to not do the job well—a poor hire). Once hired and after sufficient time (typically six months to a year) has passed, employees can also be classified into two categories: good hire or poor hire. After all of this data is collected, the overall decision-making accuracy of the selection process (the **total hit ratio**) can be calculated as the percentage of correct predictions.

The table below shows data about the 200 tellers employed at the bank.

	Poor hire	Good hire	Totals
Strong applicant	20	80	100
Weak applicant	70	30	100

- 1. Calculate the total hit ratio by adding the correct predictions and then dividing that number by the total number of decisions made. What is this percentage? Do you think this percentage is impressive?
- 2. What percentage of weak applicants turned out to be good hires?
- 3. What percentage of strong applicants turned out to be good hires? This percentage is known as the **positive hit ratio**.
- 4. Compare your answers to questions 2 and 3. Do you think the bank's system is effective?

# Part 4: Reflection on Employee Selection

- 1. You have made a number of decisions in creating, implementing and evaluating a selection system for bank tellers. Which of these decisions do you think is most critical? Why?
- 2. An employee selection approach to hiring is more complex than hiring employees based on who they know or casually scanning a résumé and asking a few "off the cuff" questions for an interview. When you think about your work experiences, do you think the organizations you worked for took an employee selection approach when hiring?
- 3. If you answered yes to question 2, do you think the organization was effective in hiring employees? If you answered no to question 2, do you think the organization should have adopted a selection approach to hiring? Explain your response.
- 4. What do you perceive as the overall advantages and disadvantages of an employee selection approach to hiring?
- 5. After reflecting on this exercise, would you recommend an employee selection process to hiring for virtually any job? Why or why not?



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