

Analyzing Data to Determine Adverse Impact

When a selection process causes adverse impact, selection procedures must be shown to be job-related or validated.

The Four-Fifth Rule:

Adverse impact exists when the selection rate for applicants or candidates from a particular race, sex, or ethnic group is less than 80 percent of the selection rate for applicants or candidates from the group with the highest rate.

Divide:

The selection rate of the group in question by the selection rate of the group with the highest rate to find the percent.

Compare:

The selection ratio to 80 percent.

Example: (for hiring, promotion, training, etc.)

- 100 white applicants result in 40 white hires
- 50 minority applicants result in 15 minority hires

1. Determine selection rate for white applicants.

$$\frac{40}{100} = 40 \text{ percent}$$

2. Determine selection rate for minority applicants.

$$\frac{15}{50} = 30 \text{ percent}$$

3. Determine selection ratio.

$$\frac{30\%}{40\%} = 75 \text{ percent}$$

4. Compare selection ratio to 80 percent. If selection ratio is less than 80 percent, then adverse impact exists. In this example, adverse impact exists against minority applicants.

For any kind of adverse personnel action (e.g., termination, layoff, disciplinary action), there is an inverted rule of thumb as follows:

Adverse impact exists when the termination rate of employees of a particular race, sex, or ethnic group is greater than 120 percent of the termination rate of employees from the group with the lowest rate.

Divide:

The termination rate of group in question by the termination rate of group with lowest rate to find the percent.

Compare:

The selection ratio to 120 percent.

Example:

- Out of 100 male employees, 6 males are terminated
- Out of 50 female employees, 5 females are terminated.

1. Determine termination rate for male employees.

$$\frac{6}{100} = 6 \text{ percent}$$

2. Determine termination rate for female employees.

$$\frac{5}{50} = 10 \text{ percent}$$

3. Determine termination ratio.

$$\frac{10\%}{6\%} = 167 \text{ percent}$$

4. Compare termination ratio to 120 percent. If termination ratio is greater than 120 percent, there is adverse impact.

There is another, more complex, analysis utilizing the Two Standard Deviation Test which often results in a lower or no adverse impact. Both of these analysis can be performed as part of your CAAAP participation.