



***SELECT ASSOCIATE SCREENING SYSTEM  
FOR HEALTH CARE***

OCTOBER 2002



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## OVERVIEW

### GENERAL BACKGROUND

Since the mid-1980's, the organizational psychologists and consultants of Bigby, Havis & Associates (BHA) have been involved in the development of tailored selection systems for client companies. In recent years, these systems were increasingly focused on the selection of candidates for associate-level jobs. In each case, as part of the project, we were asked to develop and validate work personality tests. These projects were conducted in a variety of industries.

While in each validation study a custom selection tool was developed to meet the unique aspects of a particular job, it became increasingly apparent that these instruments shared in common many work-personality dimensions. From this research, we developed the foundation for the SELECT test batteries. Each SELECT survey measures both those common dimensions predictive of performance in most associate-level jobs, as well as unique dimensions specific to the particular job for which it has been validated. Below is an overview of common dimensions across SELECT surveys

#### SELECT DIMENSIONS INCLUDE:

- ▶ **Positive Attitude** - *Shows faith in self and positive outlook on self, others, and the company*
- ▶ **Energy** - *Prefers a high activity level; action oriented*
- ▶ **Frustration and Criticism Tolerance** - *Appears emotionally optimistic and resilient*
- ▶ **Acceptance of Diversity** - *Tolerates others different from self*
- ▶ **Self Control** - *Refrains from impulsive behavior*
- ▶ **Acceptance of Structure** - *Accepts rules and follows direction*
- ▶ **Empathy, Interpersonal Insight** - *Shows an understanding for the feelings and needs of others*
- ▶ **Multi-Tasking** - *Enjoys handling multiple tasks simultaneously*
- ▶ **Integrity** - *Possesses a strong work ethic*
- ▶ **Influence** - *Enjoys influencing the actions of others*
- ▶ **Sociability** - *Displays an ease within a social context and enjoys interacting with others*
- ▶ **Good Judgment** - *Shows a tendency towards objective thinking based on fact*

The SELECT Associate Screening System is a family of related tests designed to measure important, work-related personality characteristics in applicants for entry-level jobs. It allows employers to quickly and easily *screen for* characteristics associated with *productivity, cooperative work behaviors, integrity* and *service to others*. The following pages provide an overview and validation research for the SELECT for Health Care Survey. For a full listing of other surveys available in the SELECT Associate Screening System, please see page 25 of this manual.

## WHAT IS SELECT FOR HEALTH CARE?

SELECT for Health Care is a work-personality survey designed to measure characteristics important in most Health Care jobs. Through our research with the Health Care industry, we have identified several key personality characteristics that contribute to job success. SELECT for Health Care allows you to hire patient contact employees who have a service orientation toward patients, remain composed under pressure, are energetic and productive, and who adapt to change and work cooperatively with other staff members. It will also help you to identify those applicants with low integrity and who are poorly suited for care giver positions.

## WHO IS IT FOR?

SELECT for Health Care has been validated for use with people in a hospital or care giving environment who have high patient (or patient family) contact where a service-orientation leads to positive outcomes. Some appropriate positions include:

- ▶ Admitting Office Personnel
- ▶ Allied Health Professionals
- ▶ Business Office Personnel
- ▶ Food Service/Diet Aides
- ▶ Nurses
- ▶ Unit Assistants
- ▶ Transporters
- ▶ Others in Patient-Contact Jobs

## WHAT DOES IT MEASURE?

### PERFORMANCE AND INTEGRITY

SELECT for Health Care contains statements that measure personality characteristics related to effective job performance in care provider jobs. The two central indices are integrity and performance. The Performance Index has been validated to predict the traits associated with successful performance on the job. The Integrity Index has been validated to predict attitudes, personal integrity, and work ethic in relation to being effective on the job.

The following are optional modules offered within the SELECT system. These modules may be added to your survey or customized to fit your needs. Contact your human resource department or SELECT distributor for more information.

## **JOB TASKS**

The job tasks module is an online interview which asks the candidate about his or her willingness to perform important tasks related to the job. This module includes questions related to patient care and service as well as willingness to work shifts, weekends and holidays.

## **COUNTERPRODUCTIVE BEHAVIORS**

An additional module available with SELECT for Health Care is the Counterproductive Behaviors module (CPB). There are two versions of this module, attitude-based or admissions-based. Both of these are assessments of counterproductive behaviors and include topic areas of drug use, theft, job commitment, work ethic, resistance to direction, safety, etc. Attitude-based questions ask individuals about their beliefs while admissions-based questions ask individuals about prior use or experience (these are relevant to drug use and theft). . Caution: Admissions-based questions relating to drug use and theft are prohibited in some states/territories. Check regulations particular to your legal jurisdiction before implementing.

## **STRUCTURED INTERVIEW**

Finally, the SELECT for Health Care report can include two types of interview guides: a short Interview Probes section or a complete Structured Interview.

## READING THE REPORT

The SELECT for Health Care report provides information to help facilitate the selection of top performing candidates. The report is designed to provide information regarding a candidate's personality characteristics and highlight areas that may merit attention in the interview process.

To view a sample report, click [here](#), or visit <http://www.bigby.com/envision/SELECT/selectintro.htm>

## WHAT DO THE VARIOUS INDICES MEAN?

### RANDOM RESPONSE INDEX

The SELECT for Health Care survey contains a validity check to ensure that the candidate is not responding to the items randomly. Special items in the survey determine if the applicant is correctly reading the survey and sufficiently attending to the survey items. Inappropriate answers to these statements will result in a survey which is “invalid.” This may indicate that: 1) the applicant has limited language or reading skills, 2) the applicant did not carefully read the survey, or 3) the applicant may need visual accommodation. We recommend that you attempt to determine the reason for this invalid result and, if necessary, re-survey the applicant providing them with assistance or accommodation.

|                     |  |                                     |
|---------------------|--|-------------------------------------|
| RANDOM<br>RESPONSE: | VALID<br><input checked="" type="checkbox"/> | INVALID<br><input type="checkbox"/> |
|---------------------|--|-------------------------------------|

## INTEGRITY INDEX

The Integrity Index measures the candidate's attitude related to personal integrity and work ethic. High scores indicate a positive work ethic and low scores indicate a tendency to "get by" and not "give it their all." While not all applicants with scores in the AVOID range will have low integrity, our research suggests that many will. Pursuing applicants who score in the GOOD range should increase your chances of hiring someone with a positive work ethic.

| INTEGRITY: = 9 => | <table border="1"> <thead> <tr> <th style="text-align: center;">AVOID</th> <th style="text-align: center;">GOOD</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><b>X</b></td> <td></td> </tr> <tr> <td style="text-align: center;">0 - 11</td> <td style="text-align: center;">12 - 17</td> </tr> </tbody> </table> | AVOID | GOOD | <b>X</b> |  | 0 - 11 | 12 - 17 |
|-------------------|--|-------|------|----------|--|--------|---------|
| AVOID             | GOOD   |       |      |          |  |        |         |
| <b>X</b>          |  |       |      |          |  |        |         |
| 0 - 11            | 12 - 17  |       |      |          |  |        |         |

## PERFORMANCE INDEX

The Performance Index measures those personality characteristics that differentiate good Health Care providers from poor ones. Those scoring in the higher ranges on the Performance Index score (OK and GOOD) are more likely to possess the important traits necessary to perform well on the job. Try to avoid hiring applicants with scores in the AVOID range and, if possible, look for those scoring in the GOOD range.

| PERFORMANCE INDEX: 33 => | <table border="1"> <thead> <tr> <th style="text-align: center;">AVOID</th> <th style="text-align: center;">OK</th> <th style="text-align: center;">GOOD</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td style="text-align: center;"><b>X</b></td> </tr> <tr> <td style="text-align: center;">0 - 27</td> <td style="text-align: center;">28 - 30</td> <td style="text-align: center;">31 - 41</td> </tr> </tbody> </table> | AVOID    | OK | GOOD |  |  | <b>X</b> | 0 - 27 | 28 - 30 | 31 - 41 |
|--------------------------|---|----------|----|------|--|--|----------|--------|---------|---------|
| AVOID                    | OK  | GOOD     |    |      |  |  |          |        |         |         |
|                          |   | <b>X</b> |    |      |  |  |          |        |         |         |
| 0 - 27                   | 28 - 30   | 31 - 41  |    |      |  |  |          |        |         |         |

## WHAT ARE THE HEALTH CARE DIMENSIONS?

The following table lists personality dimensions found to consistently predict performance in Health Care jobs. These dimensions cover the characteristics which make up the Performance Index.

## SELECT for Health Care Dimensions

| Performance Index   | Undesirable Scores   | Desirable Scores  |
|---|--|---|
| <b>Positive Service Attitude:</b><br>Favorable view of patients, their families and the service role.                       | Defensive, negative attitude.<br><br>Thinks service or care giving is a subservient role.  | Positive, confident personality.<br><br>Confident in ability to positively influence results.<br><br>Trusts in others and the system. |
| <b>Energy:</b><br>Activity level, action orientation.   | Slow pace, low stamina or low energy reserve.  | Energy, drive to get the job done.<br><br>Strong sense of urgency.  |
| <b>Accommodation to Others:</b><br>Willingness to accommodate the desires of others versus the tendency to try to dominate. | Tendency to compete with customers.<br><br>Tendency to resist unusual requests or special customers' needs.                          | Comfortable with the service role.  |
| <b>Frustration Tolerance:</b><br>Evenness of mood, emotional positiveness, resiliency.                                      | Moodiness.<br><br>Low stress tolerance.<br><br>Attitude, mood affected by ups and downs of job circumstance.                         | Even moods.<br><br>Upbeat outlook.<br><br>Can tolerate rejection and frustration.   |
| <b>Accountability:</b><br>Takes personal responsibility for results.  | Dislikes critical feedback.<br><br>Does not seek out opportunities for improvement.<br><br>Does not take initiative for job success. | Seeks performance feedback.<br><br>Holds him or herself accountable.<br><br>Seeks opportunities to improve.                           |
| <b>Rapport:</b><br>Socially at ease with others.  | Shy.<br><br>Uncomfortable initiating conversations.  | Initiates conversations.<br><br>Socially at ease.   |
| <b>Empathy:</b><br>Shows understanding for the feelings and needs of others.  | Impersonal, remote.<br><br>Cannot relate to patients' concerns.  | Understanding.<br><br>Compassionate.<br><br>Considerate.  |
| <b>Acceptance of Diversity:</b><br>Tolerance of others different from self.   | Annoyed with others who are different from oneself (i.e., foreigners, people poorly informed about products or services).            | Cooperative and tolerant with all types of customers/patients.  |
| <b>Multi-Tasking:</b><br>Desire to handle many tasks at one time.   | Difficulty changing task focus when under stress.<br><br>Narrow task focus.  | Flexible.<br><br>Can handle multiple tasks at one time.   |
| Integrity Index   | Undesirable Scores   | Desirable Scores  |
| <b>Integrity/Work Ethic:</b><br>Positive outlook on working hard and earning one's pay.                                     | "Get by" attitude.<br><br>Negative attitudes about work and the company.   | Enjoyment of work.<br><br>Work integrity.<br><br>Honest effort.   |

## WHAT DOES IT MEAN WHEN A PERFORMANCE SUBSCALE IS FLAGGED?

In addition to providing an overall Performance Index score, SELECT for Health Care also provides subscale information on each of the characteristics which make up the Performance Index. For each subscale, the candidate's scores will fall into the OK or FLAG category. If a candidate scores unfavorably on a subscale, there will be an "X" next to that subscale under the FLAG heading. For example, if Suzanne Example responded to statements related to Frustration Tolerance in an unfavorable way, there would be an "X" next to Frustration Tolerance on her report. This "Flagged" subscale means that Suzanne may have difficulty handling frustrations and maintaining an optimistic outlook. At the end of the report, suggested interview questions pertaining to the flagged subscales are provided.

SUBSCALE FLAGS:

| SUBSCALE                  | OK | FLAG* |
|---------------------------|----|-------|
| Positive Service Attitude | X  |       |
| Energy                    | X  |       |
| Accommodation of Others   | X  |       |
| Frustration Tolerance     |    | X     |
| Accountability            | X  |       |
| Rapport                   | X  |       |
| Empathy                   |    | X     |
| Acceptance of Diversity   | X  |       |
| Multi-Tasking             |    | X     |

It is important to remember that although an applicant's overall Performance Index score may fall in the OK or GOOD range, he or she may still have a low score on one or a few of the subscales. This indicates that, while he or she may exhibit most of the characteristics identified as important, the applicant may have some weaknesses which can affect overall performance. Any flagged subscales should be followed-up in the interview to confirm whether or not a low score will be problematic.

### WHAT ARE JOB TASKS? (OPTIONAL MODULE)

This section asks about the candidate’s willingness to do tasks related to patient care and service as well as willingness to work shifts, weekends and holidays. Areas where the candidate expresses reluctance should be probed further in the interview. (These items can be customized for your organization.)

| How willing are you to....                         | Would do it and enjoy it | Would do it | Would do it, but not like it | Would not want to do it | Would not do it |
|--|--------------------------|-------------|------------------------------|-------------------------|-----------------|
| Work weekdays?                                     | X                        |             |                              |                         |                 |
| Work evenings or nights?                           |                          |             | X                            |                         |                 |
| Work weekends?                                     |                          |             | X                            |                         |                 |
| Work holidays?                                     |                          |             | X                            |                         |                 |
| Work overtime?                                     |                          |             |                              | X                       |                 |
| Commit to being on time, every time?               |                          | X           |                              |                         |                 |
| Work on an on-call basis?                          |                          | X           |                              |                         |                 |
| Work cooperatively with others?                    | X                        |             |                              |                         |                 |
| Work directly with patients and families?          |                          | X           |                              |                         |                 |
| Work with patients who have contagious diseases?   |                          | X           |                              |                         |                 |
| Work with emotionally upset patients and families? |                          | X           |                              |                         |                 |
| Work with terminally ill patients?                 |                          | X           |                              |                         |                 |
| Follow strict procedures?                          |                          | X           |                              |                         |                 |

*The table above reports the candidate's stated willingness to do tasks commonly required in jobs similar to this one. Indications of reluctance should be probed during the interview.*

## WHAT ARE COUNTERPRODUCTIVE BEHAVIORS? (OPTIONAL MODULE)

The Counterproductive Behaviors module will highlight certain items within the SELECT for Health Care survey if they are answered in an undesirable way. The items within the attitudes-based and admissions-based versions of this models are related to attitudes and behaviors regarding drug use, theft, safety, and similar topic areas. One should use this information to further investigate potential problem areas during the interview or through reference checks.

In this section, undesirable responses by the applicant to drug use, theft, job commitment, work ethic, resistance to direction, etc. questions are presented. The total number of survey questions for each topic is given in parentheses. The candidate selected an undesirable response or answered agree to the following:

### **DRUG USE** (5 possible questions)

- o Which best describes your current involvement with illegal drugs (for example: speed, cocaine, marijuana, heroin, etc.)? Frequent, but I don't let it interfere with my work.
- o Using marijuana illegally during work... Has no effect on me.

## WHAT IS THE POSITIVE RESPONSE PATTERN?

Within the SELECT for Health Care survey there are statements designed to determine if an individual is trying to present themselves in a more positive manner, or put their "best foot forward." If these items are answered in an overly positive manner, a special warning will be produced on the report. In these instances, a special effort should be made to verify the results of the report with other information such as interview impressions and reference checks.

### **POSITIVE RESPONSE PATTERN**

#### USE SCORES OBTAINED FROM THIS SURVEY CAUTIOUSLY

This applicant answered the survey in a positive manner. Such positive responses may suggest one or more of the following:

- 1) He is very positive in his view of himself, others, and life in general.
- 2) He deliberately tried to present himself in a positive manner.
- 3) He does not have much self-insight and may see few personal weaknesses or areas for self-improvement.

The possibilities listed above should be carefully considered, and a special effort should be made to verify with other information such as additional interview impressions or reference checks.

## How Do I Use The Interview Probes And/OR Structured Interview?

The SELECT report provides interview probes or an interview guide to aid in conducting a structured, behavioral interview that is job relevant. The guide may be tailored to include your company's custom interview.

### INTERVIEW PROBES:

If a candidate scores AVOID on the Integrity Index or flags any of the Performance sub-scales, the SELECT Report will include follow-up interview probes. These are presented to assist the interviewer in asking questions about potential liabilities or characteristics which may merit additional attention and consideration. In some instances, an individual may have developed a strategy to compensate for particular weaknesses.

For example, a candidate who scores in the low range on the measure of Frustration Tolerance may become easily discouraged or overly sensitive to job frustrations. However, she may have developed a strategy for using stress management techniques to help maintain her calm and optimism. The interview probes included in the report can help to confirm or deny whether a potential liability exists.

#### *SAMPLE INTERVIEW PROBES:*

##### **FRUSTRATION TOLERANCE**

This candidate scored low on a measure of emotional resilience and positiveness. Some people with this profile can be moody and sensitive, and may be easily discouraged. These characteristics may interfere with her ability to maintain a positive attitude about the job and the people with whom she works.

##### **INTERVIEW PROBES:**

- o Ask her to describe those aspects of previous jobs which have frustrated or irritated her. Listen for responses that suggest a low frustration tolerance or a tendency to be easily disappointed or upset. Ask how she deals with these.
- o Attempt to assess her ability to deal with pressure, stress and disappointments on the job. Ask her to describe the sorts of things that irritate or annoy her on the job.
- o Ask her to describe what she enjoys about working as part of a team and what she dislikes about it. Listen for tendencies to dwell on the negative and, in particular, listen for signs that suggest that her mood is easily affected by things said or done to her.

Probe suggestions allow the interviewer to determine:

- » To what extent is the characteristic likely to be observed in day-to-day job performance?
- » What impact (if any) does the characteristic have on job performance, work relationships, problem solving, etc.?
- » To what extent, or by what method, does the person "manage" or control the behavior?

**STRUCTURED INTERVIEW (OPTIONAL):**

If the optional structured interview is included with the report, a detailed interview guide will be printed. This guide will include:

- » A script to open the interview.
- » A series of job-related interview questions with guidance as to what to listen for in the candidate's responses.
- » Interview Probes based on survey results (see above).

By using this structured interview guide consistently (meaning you ask the same questions of every candidate), you will bring increased objectivity to the process.

*SAMPLE STRUCTURED INTERVIEW QUESTIONS:*

While asking the following interview questions, be sure to listen and probe in the following areas highlighted by SELECT:

- Low Frustration Tolerance
  - Low Multi Tasking
  - Low Empathy
- 
- o Tell me about your responsibilities in your previous (or current) job. Which did you like most and why? Also, which did you like least and why? (*Listen for relevant work experience and likes and dislikes that may or may not fit this job.*)
  - o Why are you considering leaving or why did you leave your current/last job? (*Listen for reliability, job fit.*)
  - o What attracts you to this job in our company? Why? (*Listen for a desire to serve others as well as an interest in your organization.*)

## USING THE REPORT

### MAKING THE HIRING DECISIONS

As you use SELECT in your hiring process, please keep the following in mind:

- ▶ SELECT results should be one voice in the selection process. Recommendations from SELECT should be combined with evaluations of work experience and education, and results from interviews with hiring managers, to make a final decision.
- ▶ SELECT should be an aid to the well-reasoned judgment of the hiring manager, not a replacement for this judgment.
- ▶ Use the interview suggestions. It may be that a candidate has learned how to manage or compensate for certain weaknesses, and using the probes found in the report may help the interviewer to determine whether or not a particular weakness will have an impact on the individual's job effectiveness.

Using an "Avoid the AVOIDs" strategy for both Integrity and Performance, approximately 13% of applicants will be screened out as being poor "fits" for the job without introducing significant adverse impact (see Adverse Impact table on page 26). Using this criteria for screening out candidates will reduce interviews with applicants having a poor fit and will improve your selection decisions.

To be more selective in your selection process, a "Raising the Bar" strategy may be used. This strategy is a more stringent screening process in that it raises the Performance Index to only include individuals in the good range so that approximately 26% of applicants will be screened out without introducing significant adverse impact. Therefore, this strategy imposes a higher standard in screening compared to the "Avoid the AVOIDs" strategy.

### WHO SHOULD SEE THE SELECT REPORTS?

Because of the nature of appraisal information and the dangers of its misuse, the SELECT report must be kept confidential and its contents restricted to those who have direct responsibility for decision making. The SELECT reports SHOULD NOT be shown to the individual nor contents discussed with him or her.

The results of SELECT belong to the hiring organization. The Statement of Informed Consent designed to notify the candidate of the above, is included in both the online and paper/pencil surveys. The candidate must read and agree to this Statement of Informed Consent before completing the test. *(Note: When entering paper and pencil results, a SELECT report should not be processed unless the Statement of Informed Consent has been signed by the applicant -- first page of the survey or answer sheet.)*

## VALIDATION RESEARCH

### GENERAL BACKGROUND

The following section will present approaches for developing and validating pre-employment tests and provides a detailed description for the method used in developing and validating the SELECT surveys. (Additional sections of this manual will present research results for the development and validation of the SELECT for Health Care surveys.)

BHA validation research has shown SELECT traits to predict performance (i.e., the criterion) across a number of customer service, sales, and production jobs. There are two main approaches to criterion-related validation studies: predictive and concurrent designs.

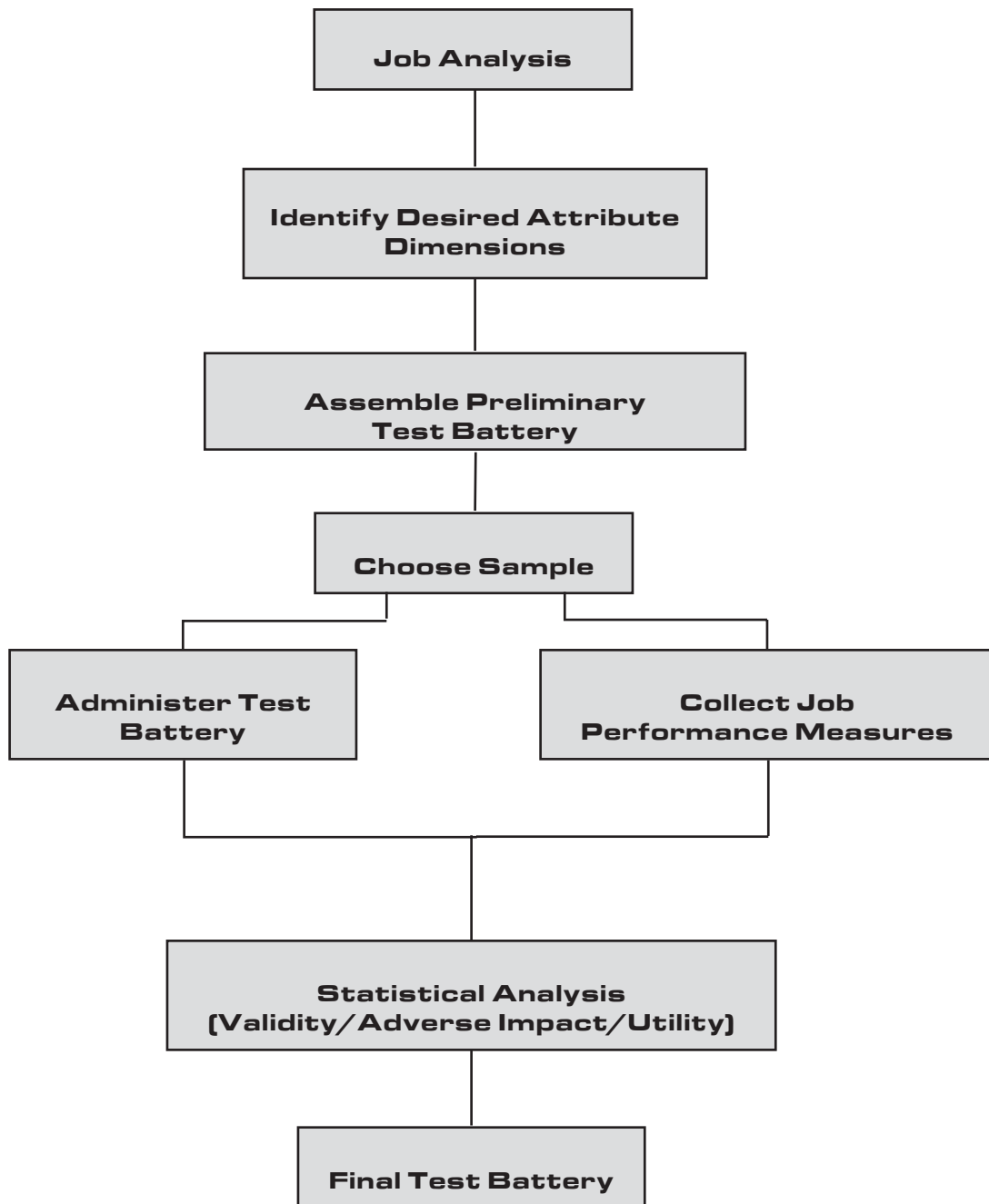
### PREDICTIVE

In a predictive strategy, candidates are tested before they are hired, and performance measures are collected later, after the candidates have been hired and on the job long enough to accurately assess their job performance.

### CONCURRENT

In a concurrent strategy, the relationship between predictor instruments and criterion job performance is verified by testing a sample of current employees. The test performance of these employees is correlated with measures (existing performance evaluations or special purpose ratings) collected "concurrently" or in the same general time period as test performance.

A **concurrent validation strategy** is most often chosen because of its relative efficiency and to allow the test to be used for selection sooner. The flowchart on the next page shows the main work steps in a concurrent validation study, and a brief description of each step follows.



*Below are brief definitions of the main worksteps:*

**JOB ANALYSIS:**

Job analysis is the process whereby the knowledge, skills, abilities, and personality factors (KSAP's) necessary for effective job performance are identified. Through focus groups with job content experts (often supervisors, trainers, and top performing employees), desired attributes, as well as those characteristics that lead to poor performance, are surfaced.

**DESIRED ATTRIBUTE DIMENSIONS:**

Through job analysis, a list (or lists) of the desired KSAP's for a specific position are generated. This list is consolidated and kept as a record of the job relatedness of the developed and validated selection test.

**PRELIMINARY TEST BATTERY:**

The list of desired attributes helps in the selection of test items and scales which could potentially be used to identify top performing job candidates. These items and scales are the content of the preliminary test battery which is later validated with the incumbent sample.

**CHOOSE SAMPLE:**

In order to "test the test," a large, representative sample of current employees is asked to complete the preliminary battery. This sample is ideal when made up of both good and poor performers and when there is sample diversity in terms of ethnicity, age, and gender.

**ADMINISTER TEST BATTERY:**

The preliminary test battery is then given to the incumbent sample. It is important that employees know that they are helping to "test the test" and that none of their responses will be used for anything other than research purposes.

**COLLECT JOB PERFORMANCE RATINGS:**

Concurrently with administering the test battery, incumbent job performance measures are collected. Specially designed rating forms are used and supervisors are taught how to rate performance as objectively as possible. In some studies, truly objective data can be collected; for example, SELECT has been validated against individual call revenue in an airline reservations job.

#### STATISTICAL ANALYSIS:

Analysis is completed to determine the relationship between job performance measures and test results. The primary measure of this relationship is the correlation coefficient. Correlations vary from -1.0 to +1.0.

+1.0 = perfect positive relationship (high test score = high performance).

0 = no relationship.

-1.0 = perfect negative relationship (high test score = low performance).

p-value (probability value) indicates level of statistical significance - at a minimum, this should be smaller than .05. (.05 means that the probability of the observed result occurring by chance is 5 out of 100.)

Expected range of correlation coefficients in this type of study: .2 to .4.

After best-predicting scales are combined to form indices (e.g., Performance and Integrity), the indices are analyzed for adverse impact. If adverse impact is found, indices are often modified to ensure the rate of selection does not work to the disadvantage of members of an ethnic, gender, or age group.

#### FINAL TEST BATTERY:

Once the best items and scales have been analyzed and selected, a final test battery can be designed. This process generally involves finalizing scoring software and paper and pencil tests.

## INITIAL VALIDATION

SELECT for Health Care was originally developed and validated in our work with hospitals/ medical centers in 1994-1998. This work is described in studies one through three in the following pages. In 1999, we were able to partner with a large southwestern hospital to refine and improve the survey. In this study, we used the results of the prior efforts (n=162) along with the new sample (n=201) to create the current SELECT for Health Care Survey Version 1.0. In 2002, revisions were made to the SELECT surveys including SELECT for Health Care. For more information regarding the latest updates and changes with Version 2.0, please see SELECT for Health Care Version 2.0 on page 23.

## STUDY ONE

### *Initial Development and Validation of SELECT for Health Care (V 1.0)*

Bigby, Havis & Associates (BHA) was asked to assist a large northeastern hospital in developing a selection system that would support a human resource strategy of upgrading the quality of individuals selected into key patient contact positions. As a major regional health care facility, the hospital considered the quality of patient care (i.e., customer service) to be the most critical competitive advantage in today's marketplace.

Through the job analysis, a list of attributes desired in patient contact positions was developed. It became apparent that in health care settings, additional characteristics, beyond those typically important in service jobs, were considered desirable. These included dimensions such as empathy and other "care" skills. To accommodate these job demands, BHA used the attribute list to select and develop experimental items and scales that could potentially measure the additional desired characteristics. A representative sample of 110 incumbents from a northeastern hospital was selected to serve as the validation sample. Concurrently, job performance data was collected for each of the participating incumbents; this consisted of supervisor ratings of important performance dimensions.

Statistical analysis, primarily correlation, was conducted to determine the best predicting set of items and scales. This predictor set was then analyzed for adverse impact and subsequently improved to reduce potential bias. The resulting Performance and Integrity indices significantly correlated with key performance measures.

### *Correlations Between Performance Index and Performance Criteria*

| JOB PERFORMANCE<br>RATING OF.... | INDICES     |            |
|----------------------------------|-------------|------------|
|                                  | PERFORMANCE | INTEGRITY  |
| <b>Composite Performance</b>     | <b>.42</b>  | <b>.30</b> |
| <b>Acceptance Of Structure</b>   | .27         | .25        |
| <b>Adaptability</b>              | .26         | .17        |
| <b>Compassion</b>                | .25         | ns         |
| <b>Composure</b>                 | .21         | ns         |
| <b>Detail-Mindedness</b>         | ns          | ns         |
| <b>Enjoyment Of The Job</b>      | .25         | .25        |
| <b>Positive Attitude</b>         | .29         | .23        |
| <b>Relations With Co-Workers</b> | .20         | ns         |
| <b>Relations With Manager</b>    | .38         | .31        |
| <b>Relations With Patients</b>   | ns          | ns         |
| <b>Reliability</b>               | .17         | ns         |
| <b>Work Ethic</b>                | <b>.40</b>  | <b>.38</b> |

Note: Composite of most important performance ratings.  
All correlations are significant at  $p < .05$ .

## STUDY TWO

### *Follow-Up Validation of SELECT for Health Care*

After using SELECT for Health Care for four years, the large northeastern hospital where the health care version was originally developed utilized some existing data to conduct a small follow-up study (n=53) to determine the effectiveness of the survey. As noted in Study One, this hospital utilized only the Performance Index as a selection hurdle, and selected those candidates scoring in the highest range. (Low integrity scores were followed-up in the interview.)

The existing data consisted of performance ratings of all employees in relation to the organization's "Shared Values." Primary amongst these values is one set called "Service Values" where employees are evaluated on their ability to provide exceptional customer service to the hospital's patients and families. Service Values ratings ranged from one to three with high scores (3) indicating top service performance and low Service Values ratings (1) indicating poor service.

The Performance and Integrity scores were correlated with ratings of Service Values. The results show correlations in the expected direction, and correlations between the Integrity Index and the Shared Values performance measure are significant ( $p < .05$ ), despite the small sample. Also, when the Performance Index and Integrity Index are combined to make a selection decision, the correlations are again significant ( $p < .05$ ).

### *Correlations between Performance Criteria and Indices*

|                          | <b>Overall Service Values<sup>1</sup></b> |
|--------------------------|---|
| <b>Performance Index</b> | .34                                       |
| <b>Integrity Index</b>   | .39                                       |
| <b>Combined</b>          | .39                                       |

<sup>1</sup>Correlations adjusted statistically for range restriction  
All correlations significant at  $p < .05$

### STUDY THREE

#### *Validation of SELECT for Health Care with Nurses*

After the initial development of SELECT for Health Care, Bigby, Havis & Associates conducted a second study to see if the survey was appropriate for another critical health care job, nurses. The results of the validation study (n=52) at a regional medical center indicate that SELECT for Health Care is an effective tool for selecting top performing nurses (RN's, LPN's and Aides). The Performance and Integrity indices of SELECT for Health Care again significantly correlated ( $p < .05$ ) with measures of job performance.

#### *Correlations between Performance Criteria and Indices*

| JOB PERFORMANCE<br>RATING OF.... | INDICES     |            |
|----------------------------------|-------------|------------|
|                                  | PERFORMANCE | INTEGRITY  |
| <b>Overall Performance</b>       | <b>.35</b>  | <b>.33</b> |
| <b>Acceptance Of Structure</b>   | ns          | .28        |
| <b>Adaptability</b>              | ns          | ns         |
| <b>Composure</b>                 | ns          | ns         |
| <b>Detail-Mindedness</b>         | .35         | .33        |
| <b>Enjoyment Of The Job</b>      | ns          | ns         |
| <b>Positive Attitude</b>         | .28         | .28        |
| <b>Relations With Co-Workers</b> | ns          | ns         |
| <b>Relations With Manager</b>    | ns          | ns         |
| <b>Relations With Patients</b>   | .44         | ns         |
| <b>Reliability</b>               | .50         | .35        |
| <b>Work Ethic</b>                | <b>.48</b>  | <b>.31</b> |

All correlations are significant at  $p < .05$ .

## VALIDATION UPDATE

### *Revision of the SELECT for Health Care Survey Using a Sample from Three Hospitals*

Using data from previous studies and an additional sample of a large southwestern hospital, the SELECT for Health Care survey was cross-validated and improved. We revisited and identified those scales and items predictive across all three samples. All of the original scales (Positive Service Attitude, Energy, Frustration Tolerance, Accommodation to Others, Acceptance of Diversity, Empathy and Multi-Tasking) were retained in the new Performance Index. Additionally, a new scale, Rapport, was found to predict performance and was added to the revised Performance Index. The following table shows the initial and revised index correlations for the performance and work ethic ratings in each sample.

### *Correlations for the Updated Index and the Performance and Work Ethic Ratings*

|                                | Initial           |                 | Revised           |                 |
|--------------------------------|-------------------|-----------------|-------------------|-----------------|
|                                | Performance Index | Integrity Index | Performance Index | Integrity Index |
| Northwestern Sample (n=121)    | .42               | .38             | .40               | .35             |
| Regional Medical Center (n=52) | .35               | .31             | .41               | .47             |
| Southwestern Sample (n=201)    | .22               | .17             | .30               | .27             |

All correlations significant at p.001.

Further, when conducting the validation study for the larger southwestern hospital, job analysis findings indicated the need to add an additional dimension, Accountability, to the validation survey. This dimension included items related to the extent to which the individual took personal responsibility for setting performance goals and working to improve their effectiveness. We further enhanced the Integrity dimension by adding additional items. This increased the items in the Integrity index and added an additional scale to the Performance Index (Accountability). The following table shows the index correlations for the performance and work ethic ratings with the additional dimension and expanded Integrity scale.

Based on this study, the revised version of SELECT for Health Care now includes the improved original dimensions, the two additional scales of Accountability and Rapport, and the more comprehensive Integrity scale.

| <b>UPDATED VERSION<br/>WITH NEW SCALES AND ITEMS</b> |                              |                            |
|--|------------------------------|----------------------------|
|  | <b>PERFORMANCE<br/>INDEX</b> | <b>INTEGRITY<br/>INDEX</b> |
| <b>Southwestern<br/>Sample (n=201)</b>               | .36                          | .29                        |

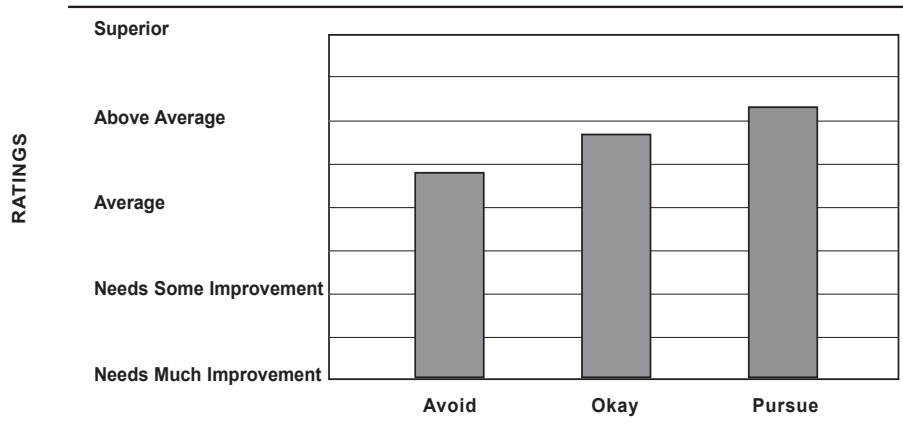
All correlations are significant at  $p < .05$ .

Using the supervisor ratings of overall performance, the table below presents average (mean) ratings at various test score ranges. These results show a strong relationship between test scores on the SELECT ranges and supervisory performance ratings.

| <b>Performance<br/>Index Score<br/>Ranges</b> | <b>% of<br/>Total</b> | <b>Mean<br/>Performance<br/>Rating</b> | <b>SD</b>  | <b>F</b> | <b>P</b> |
|---|-----------------------|--|------------|----------|----------|
| Avoid   | 42.3                  | 3.47                                   | 1.01       | 8.33     | .000     |
| Okay  | 32.8                  | 3.91                                   | .85        |          |          |
| Good  | 24.4                  | 4.10                                   | .84        |          |          |
| <b>Total</b>                                  | <b>99.5</b>           | <b>3.77</b>                            | <b>.96</b> |          |          |

**UTILITY**

As indicated by supervisory ratings below, candidates selected with the SELECT for Health Care Survey will have better service-oriented personality than those selected without the system. Using the Performance Index Cuts as a selection hurdle, candidates who scored better on the survey were rated as having better service and job effectiveness ratings.



Using an Avoid the AVOIDs strategy on a sample of 197 health care associates:

79% of poor performers (rated 'needs some improvement' and 'needs much improvement') would have been screened out by the SELECT survey.

Meanwhile, 73% of those in the top performing group (rated 'superior' and 'above average') would have been selected in.

## **SELECT FOR HEALTH CARE VERSION 2.0**

In May 2002, an extensive review was made on the applicant database of over 100,000 cases gathered since the release of SELECT for Internet. Pass rates and adverse impact were analyzed for each of the SELECT tests and in using the "Avoid the AVOIDs" strategy, all surveys were within EEOC guidelines. However, recalibrations of cut-scores allow for more selectivity when screening candidates.

To see v2.0 Integrity and Performance Indices cut-scores specific to SELECT for Health Care, please review page 5 of this manual.

## **ADVERSE IMPACT ANALYSIS (v2.0)**

Adverse impact occurs when an employment practice or process works to the disadvantage of members of a race, gender or ethnic group. In offering guidance for determining adverse impact, The Uniform Guidelines offers the four-fifths rule: "A selection rate for any race, ethnic or gender subgroup which is less than four-fifths (4/5) (or eighty percent) for the group with the highest rate will generally be regarded as adverse impact. . . "

To examine the issue of adverse impact for Health Care, selection impact ratios for the Performance and Integrity Indices were estimated in 2002 using a combined sample of 9,778 applicants from various hospital and patient care facilities.

**ADVERSE IMPACT RATIOS WITH APPLICANTS**

| PERCENT OF CANDIDATES PASSING SELECT |                        |               |                  |         |             |               |         |
|--------------------------------------|------------------------|---------------|------------------|---------|-------------|---------------|---------|
| INDEX                                | ALL APPLICANTS<br>9778 | WHITE<br>6614 | MINORITY<br>2910 | RATIO * | MEN<br>1597 | WOMEN<br>8099 | RATIO * |
| PERFORMANCE INDEX                    |                        |               |                  |         |             |               |         |
| 0-27 Avoid                           |                        |               |                  |         |             |               |         |
| 28-30 Okay                           | 88.8%                  | 91.5%         | 83.2%            | .91     | 85.2%       | 89.6%         | 1.05    |
| 31-41 Good                           | 74.5%                  | 77.8%         | 67.8%            | .87     | 69.2%       | 75.6%         | 1.09    |
| INTEGRITY INDEX                      |                        |               |                  |         |             |               |         |
| 0-11 Avoid                           |                        |               |                  |         |             |               |         |
| 12-17 Good                           | 95.1%                  | 97.0%         | 91.0%            | .94     | 92.8%       | 95.6%         | 1.03    |
| COMBINED **                          |                        |               |                  |         |             |               |         |
| Avoid                                |                        |               |                  |         |             |               |         |
| PI: Okay, I: Good                    | 86.8%                  | 90.1%         | 79.8%            | .89     | 82.4%       | 87.7%         | 1.06    |
| PI: Good, I: Good                    | 73.5%                  | 77.1%         | 66.0%            | .86     | 67.6%       | 74.7%         | 1.10    |

\* Ratio = Minority % / Majority %. The commonly accepted standard to avoid adverse impact is a selection ratio between the range of .8 to 1.2  
 \*\* Performance Index and Integrity Index judgment combined

**Performance Index:** Setting cut-off scores to screen out those scoring in the AVOID (0-27) or the AVOID (0-27) and OK (28-30) ranges results in selection ratios well within the “four-fifths rule.”

**Integrity Index:** Setting cut-off scores to screen out those scoring in the AVOID range results in selection ratios well within the “four-fifths rule.”

COMBINED INDICES

**Avoid the AVOIDS:** By using an “avoid the AVOIDS” multiple hurdle strategy on the Performance and Integrity Indices, approximately 13.2% of all applicants will be screened out without introducing significant adverse impact.

**Raising the Bar:** The hurdle for the Performance Index can be increased to look at those scoring in the GOOD range, while still avoiding the AVOIDs on Integrity. It is estimated that approximately 26.5% of all applicants will be screened out without introducing significant adverse impact.

## ABOUT BIGBY HAVIS

Bigby, Havis & Associates is a consulting company that provides products, services and general consulting to organizations.

*Our focus is on the people in organizations - which ones to hire or promote and when - how to train and develop them to their fullest potential - and how to organize them and the systems around them to maximize their collective potential.*

We are organizational psychologists, management consultants, software designers and service professionals working together to *serve the business needs of our clients.*

## AVAILABLE SELECT TESTS

**The following is a list of surveys available in the SELECT Associate Screening System:**

SELECT for Administrative Support

SELECT for Call Centers - Inbound Combo

SELECT for Call Centers - Inbound Sales

SELECT for Call Centers - Inbound Service

SELECT for Call Centers - Outbound Sales

SELECT for Call Centers - Sales Combo

SELECT for Convenience Store Managers

SELECT for Convenience Store Associates

SELECT for Customer Service

SELECT for Entry-Level Retail Managers

SELECT for Health Care

SELECT for Help Desk Agents

SELECT for Hospitality

SELECT for Leasing Agents

SELECT for Personal Service

SELECT for Production & Distribution

SELECT for Retail Clerks/Cashiers

SELECT for Retail Sales Associates