

# Technical Brief

## Overview

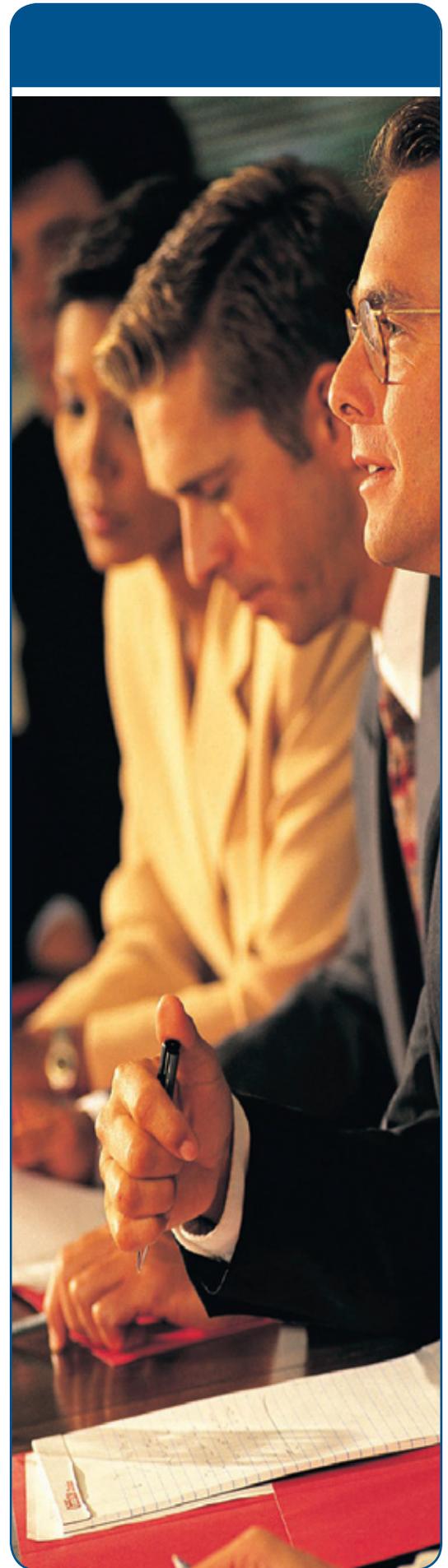
The Birkman Method® is a personality, social perception, and occupational interest assessment identifying behavioral styles, motivations, expectations, and stress behaviors. It was first developed in the late 1940s by Roger Birkman, Ph.D. For over 50 years, corporate human resources professionals, independent consultants, executive coaches, educational institutions, and non-profit organizations have used The Birkman Method® with over 2.5 million individuals.

The Birkman Method® consists of a 298-item questionnaire and a series of related report formats that facilitate team building, executive coaching, leadership development, career counseling, and interpersonal conflict resolution. The Birkman Method® combines motivational, behavioral, and interest evaluation into one single assessment, which provides a multi-dimensional and comprehensive analysis, thus reducing the need for multiple assessments. The questionnaire is delivered online and should take about 45 minutes to complete. It has been translated into 12 languages in addition to English.

## Test Development and Revisions

The Birkman Method® was created using a normal working adult population of individuals in a business or workplace setting. The questionnaire underwent seven revisions throughout the creation process, with each revision administered to more than 1,000 subjects from new working samples. The Birkman Method® has recently been updated and validated via Classical Test Theory (CTT), exploratory and confirmatory factor analyses, and Item Response Theory (IRT). Researchers at Birkman International, Inc. have made many advancements in the psychometric and theoretical properties of the Birkman instrument. Major contributions include:

- Reconstruction of Component scales via CTT, exploratory and confirmatory factor analyses, and IRT
- Established construct validity aligning the Components with Five Factor Model (FFM) personality constructs
- Development of subfactor scales
- Creation of a pre-equated item pool via IRT
- Development of 2007 U. S. national norms



## Normative Sample

The 2007 norming sample representative of the U.S. workforce was drawn from 17,537 working adults who had been administered The Birkman Method® assessment from 2002-2006. The final sample contained 4,300 working adults stratified across gender, ethnicity, age, and occupation, from a variety of industries including healthcare, engineering, transportation, protective services, retail, financial services, and education. This sample is representative of 15 of the 22 U.S. Department of Labor categories. The data set was comprised of 47.4% female. By race, the data set was made up of 9.6% Blacks, 8.0% Hispanics, 6.9% Asian/Pacific Islanders, 1.5% Native Americans/Alaskan Natives, 74.0% Whites, and 3.0% not indicated. The average age of the individuals was 43.17 years.

## Scales

The Birkman Method® consists of ten scales describing occupational preferences (Interests), 11 scales describing “effective behaviors” (Usual behaviors) and 11 scales describing interpersonal and environmental expectations (Needs). A corresponding set of eleven scale values was derived to describe “less than effective” behaviors (Stress behaviors). Together, these sets of 11 scales are titled Components. Each of the Component (Usual, Needs and Stress) descriptors have been derived from interviews aimed at identifying the most frequent behaviors and motivations that described positive and negative aspects of interpersonal relationships.

The first nine Components are organized according to the Five Factor Model (FFM) of Personality. The last two Components deal with social conventionality and perspective and are beyond the scope of the FFM. The Components aligning to the FFM are labeled “Orientations.” Subfactors within Orientations are called “Preferences.” Table 1 lists the names of The Birkman Method® factors, subfactors and old Component names.

**Table 1 The Birkman Method® Scales and Subscales**

<b>Birkman Scales and Subscales (Five Factor Model)</b>	<b>“Low” Scale Names</b>	<b>“High” Scale Names</b>	<b>Birkman Component Title</b>
Emotive Orientation (Neuroticism)	Consistent	Variable	
Empathy Preference	Indifferent	Sensitive	Empathy
Activity Preference	Managed	Energetic	Activity
Thought Preference	Decisive	Thorough	Thought
Social Orientation (Extraversion)	Introverted	Extraverted	
Communication Preference	Direct	Indirect	Esteem
Interaction Preference	Independent	Gregarious	Acceptance
Process Orientation (Conscientiousness)	Adaptable	Systematic	Structure
Control Orientation (Agreeableness)	Distributed	Localized	
Authority Preference	Distributed	Localized	Authority
Incentive Preference	Distributed	Localized	Advantage



<b>Birkman Scales and Subscales (Five Factor Model)</b>	<b>“Low” Scale Names</b>	<b>“High” Scale Names</b>	<b>Birkman Component Title</b>
Change Orientation (Openness)	Focused	Open	Change
Personal Autonomy	Conventional	Non-Conventional	Freedom
Perspective Alignment	Maintain	Enhance	Challenge

The original development of Birkman Interests resulted in the identification of ten areas of interest, allowing descriptions of individual differences in occupational preferences. They are measured by asking the respondent to select occupations from a list based on the premise that all the jobs pay equally and talent/skills are not an issue.

**Table 2 The Birkman Method® Interests Scales**

• Artistic	• Numerical
• Clerical	• Outdoor
• Literary	• Persuasive
• Mechanical	• Scientific
• Musical	• Social Service

### Reliability

Table 3 and Table 4 list the internal consistency reliabilities for the Orientation and Preference scales, respectively. For the Orientation Usual scales, reliabilities range from .67 (Change) to .88 (Emotive). For the Orientation Needs scales, reliabilities range from .58 (Change) to .88 (Emotive). For the Preference Usual scales, reliabilities range from .54 (Thought and Incentive) to .81 (Activity and Empathy). For the Preference Needs scales, reliabilities range from .56 (Thought) to .82 (Empathy). Table 5 indicates that the internal consistency reliabilities are .68, .80, and .64 for Personal Autonomy Usual, Personal Autonomy Needs and Perspective Alignment, respectively.

**Table 3 Internal Consistency Reliability for Orientation Scales**

<b>Scale</b>	<b>Usual</b>	<b>Needs</b>
Emotive	.88	.88
Social	.86	.82
Process	.71	.78
Control	.70	.80
Change	.67	.58

Notes: N = 4,300 from 2007 normative sample.



Table 4 Internal Consistency Reliability for Preference Scales

Scale	Usual	Needs
Activity	.81	.74
Empathy	.81	.82
Thought	.54	.56
Communication	.80	.74
Interaction	.80	.75
Incentive	.54	.70
Authority	.60	.65

Notes: N = 4,300 from 2007 normative sample.

Table 5 Internal Consistency Reliabilities for Social Environment Anchored Scales

Scale	Alpha
Personal Autonomy: Usual	.68
Personal Autonomy: Need	.80
Perspective Alignment	.64

Notes: N = 4,300 from 2007 normative sample.

Reliability coefficients for the Birkman Interests are listed in Table 6. The average internal consistency reliability is .85, and ranges from .74 (Scientific) to .91 (Mechanical). Results indicate reasonably high reliability coefficients for the scales.

Table 6 Birkman Interests Scales Internal Consistency Reliabilities

Scale	Alpha
Artistic	.84
Clerical	.90
Literary	.85
Mechanical	.91
Musical	.87
Numerical	.90
Outdoor	.88
Persuasive	.79
Scientific	.74
Social Service	.86

Notes: N = 4,300 from 2007 normative sample.



## Validity

Using several personality and non-personality measurements (e.g., NEO, Wonderlic), The Birkman Method® has established convergent and divergent construct validity. As far as prediction, the FFM constructs have empirically been shown to predict job performance and satisfaction along with other organizational factors such as turnover and on-the-job accidents. Birkman's measurement of the FFM constructs, environmental contexts, and motivational factors allows it to measure and assess individuals' strengths and weaknesses to great depth. This information is able to be used to discover the most appropriate behavioral style to use within a given situation for each individual. In addition, the information reveals how one might behave under stressful situations so that interventions can be prescribed to help the individual before these situations occur in real life.

## Administration/Scoring

Using the full suite of reporting from The Birkman Method® requires a Birkman Certified Consultant trained in the application and interpretation of the instrument. Reporting is available to those not Birkman Certified. For details contact Birkman International. The questionnaire and related reports are accessed through the Internet using the proprietary, secure online system, BirkmanDirect®. No software is required, only Internet access. Using BirkmanDirect®, respondents are emailed a unique link to access the Birkman questionnaire or are provided a unique password; they then complete the questionnaire over the web. Completion time averages 30 to 45 minutes. Results are available to the consultant immediately upon questionnaire completion. Scoring is proprietary to Birkman International, Inc., and The Birkman Method® can only be scored by BirkmanDirect® or authorized Birkman International, Inc. personnel.

The most appropriate population for The Birkman Method® is individuals in the workforce 18 years of age and above. Applications of The Method® for individuals under 18 are useful, but caution is advised in the interpretation of results. Items are written in simple, everyday language, at the third grade reading level. The Birkman Method® does not measure dysfunctional personality and is recommended for normally functioning adults in the general population, preferably in the workforce.

The survey questionnaire itself consists of 250 True/False personality and perception items (125 about self and 125 about most people) and 48 occupational interest items. Of the 250 personality and perception items, 176 are operational items and the remaining items are rotating field test items. The Interests survey contains 48 items consisting of groups of four occupations each. From each of the four options, the respondent makes a first and second choice of preference, based on the premise that all the jobs pay equally and talent/skills are not an issue.



## Applications

The Birkman Method® provides a wide range of non-clinical applications for measuring human behavior and occupational strengths, including:

- Hiring and Selection
- Individual Development
- Team Building/Development
- Career Guidance
- Career Management/Transition
- Executive Coaching
- Leadership Development
- Conflict Management
- Culture Management
- Mergers and Acquisitions
- Workplace Diversity
- Succession Planning
- Crisis Management
- Retirement Planning
- Employee Retention
- Stress Management

## Reports

The Birkman Method® has over 40 report formats at the present time, available in 13 different languages. They are classified into one of three categories. Individual reports describe various behaviors and motivations and focus on the individual as compared to the general populace. Paired reports compare specific behaviors and motivations of one individual with another. Group reports either portray one individual to a specific group, or portray all the individuals within the whole group. Results are available to the consultant immediately upon questionnaire completion. The consultant can create and print from a variety of report formats from anywhere in the world, to view, print, save to disk, or send electronically. Report access ranges from self-interpretive reporting requiring little or no formal training to in-depth, more comprehensive reporting requiring completion of Birkman Certification Training.

## Conclusion/Summary

The Birkman Method® has been used for over 50 years in business and educational settings. Recent revisions to The Birkman Method® utilized CTT and IRT methodologies to link the assessment to the FFM. The national normative sample was updated in 2007 to represent a stratified sample of 15 of the 22 U. S. Department of Labor categories. The Birkman Method® is shown to be reliable and has been validated with other personality and non-personality constructs. The assessment is administered online by qualified Birkman consultants and is applicable in various non-clinical settings for measuring human behavior and occupational strengths.

