



## Introducing the **Woodcock-Johnson® IV:**

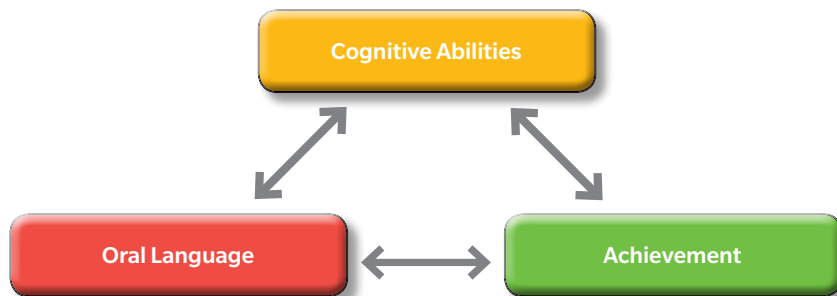
**The most comprehensive system for evaluating strengths and weaknesses among contemporary measures of achievement, oral language, and cognitive abilities**

*Fredrick A. Schrank, PhD, ABPP*

The **Woodcock-Johnson IV** is the updated and redesigned edition of one of the most widely used batteries of individually administered psycho-educational tests. Based on the evolution of CHC theory, new tests and interpretive clusters place emphasis on the most important and diagnostically useful measures of academic achievement, oral language, and cognitive abilities. The design of three independent and co-normed batteries facilitates the evaluation of strengths and weaknesses within—and among—measures of academic performance, oral language competence, and cognitive abilities. The **WJ IV's** focus on evaluation of relative strengths and weaknesses will help assessment professionals identify and describe patterns of performance across achievement, language, and cognitive domains that are key to diagnosing learning problems and developing targeted interventions for individual needs.

The **Woodcock-Johnson IV (WJ IV)** (Schrank, McGrew, Mather, & Woodcock, 2014) is the latest generation of the time-honored **Woodcock-Johnson** psycho-educational test batteries. Designed to meet current and future assessment needs, the **WJ IV** features a carefully constructed organizational plan, new tests and clusters, an updated theoretical model, and customized interpretive analyses.

The **WJ IV** is a broad-scope assessment system that is based on state-of-the-science tests for individual evaluation of academic achievement, cognitive abilities, and oral language. The system is organized into three independent, complementary, and co-normed batteries: the **Woodcock-Johnson IV Tests of Achievement (WJ IV ACH)**, the **Woodcock-Johnson IV Tests of Cognitive Abilities (WJ IV COG)**, and the new **Woodcock-Johnson IV Tests of Oral Language (WJ IV OL)**. The three batteries can be used independently or together in any combination. The **WJ IV** provides professionals with the most contemporary and comprehensive system for identification of patterns of strengths and weaknesses among important cognitive, language, and academic abilities.



*The WJ IV Tests of Achievement, Tests of Cognitive Abilities, and Tests of Oral Language can be used independently or in any combination.*

## WJ IV TESTS OF ACHIEVEMENT

The **WJ IV ACH** includes 20 tests for measuring four broad academic domains: reading, written language, mathematics, and academic knowledge. A completely new configuration, with new tests and clusters, supports a broad range of diagnostic assessment needs for a wide variety of professionals. Determination of academic strengths and weaknesses has never been easier. A new comparison of achievement scores to academic knowledge can provide additional information to help determine if a more comprehensive evaluation should be considered.

Eleven of the most frequently used achievement tests are included in the Standard Battery, which has three parallel forms. There is a single form of the Extended Battery containing nine additional diagnostic measures that can be used with any form of the Standard Battery.

**“An observation checklist aligned with each of the tests of the Standard Battery provides an opportunity for documentation of important qualitative observations that may affect score interpretation.”**

There are three Standard Battery forms of the **WJ IV Tests of Achievement** (Form A, Form B, and Form C). A single form of the Extended Battery can be used with any of the three forms of the Standard Battery. The three-form configuration of the **WJ IV ACH** Standard Battery supports current assessment practices that are based on shared assessment and communication responsibilities among a team of professionals. In some settings, academic

evaluators alternate between use of Form A and Form B for initial assessment and post-intervention testing while Form C is reserved for use in any subsequent comprehensive evaluation by another professional. Use of the different forms by one or more examiners allows accurate comparison of evaluation results across time while reducing dependency on a single form of the test and prevents potential over-exposure to items in any given form.

## TESTS IN THE WJ IV ACH

### Standard Battery

- Test 1: Letter-Word Identification
- Test 2: Applied Problems
- Test 3: Spelling
- Test 4: Passage Comprehension
- Test 5: Calculation
- Test 6: Writing Samples
- Test 7: Word Attack
- Test 8: Oral Reading—**NEW**
- Test 9: Sentence Reading Fluency
- Test 10: Math Facts Fluency
- Test 11: Writing Fluency

### Extended Battery

- Test 12: Reading Recall—**NEW**
- Test 13: Number Matrices—**NEW**
- Test 14: Editing
- Test 15: Word Reading Fluency—**NEW**
- Test 16: Spelling of Sounds
- Test 17: Reading Vocabulary
- Test 18: Science
- Test 19: Social Studies
- Test 20: Humanities

## NEW TESTS

Several new achievement tests provide greater breadth of coverage in the **WJ IV ACH**. The Oral Reading test provides a standardized assessment of oral reading performance that increases the scope of reading fluency assessment in the **WJ IV**. The Reading Recall test assesses reading comprehension in a format that closely parallels classroom reading comprehension tasks. The Word Reading Fluency test expands the usefulness of the **WJ IV** for evaluation of reading rate. Number Matrices assesses mathematics problem-solving in a matrix reasoning format.

## NEW ACHIEVEMENT CLUSTERS

Several new reading clusters increase the diagnostic sophistication of the **WJ IV ACH**. These clusters are designed to address contemporary assessment needs. According to the most recent revision of the Individuals with Disabilities Education Improvement Act (2004), difficulties in fluent reading can be considered a disability for purposes of service eligibility. The new **WJ IV Reading Fluency** cluster combines a measure of silent reading fluency and a measure of oral reading fluency. Because speed of reading may broadly affect academic performance, the **WJ IV Reading Speed** cluster assesses the rapid word comparison and sentence comprehension skills that are necessary for academic success. These clusters complement the other reading clusters in the **WJ IV** diagnostic system: Broad Reading, Basic Reading Skills, Reading Comprehension, and a new three-test and multi-faceted measure called Reading Comprehension - Extended. A highly reliable and broadly predictive two-test Reading cluster that includes both sight word reading and reading comprehension skills is now available for many basic evaluation purposes.



## CLUSTERS IN THE WJ IV ACH

- Reading—**NEW**
- Broad Reading
- Basic Reading Skills
- Reading Comprehension
- Reading Comprehension Extended—**NEW**
- Reading Fluency—**NEW**
- Reading Rate—**NEW**
- Mathematics—**NEW**
- Broad Mathematics
- Math Calculation Skills
- Math Problem Solving—**NEW**
- Written Language—**NEW**
- Broad Written Language
- Basic Writing Skills
- Written Expression
- Academic Skills
- Academic Applications
- Academic Fluency
- Academic Knowledge
- Phoneme-Grapheme Knowledge
- Brief Achievement—**NEW**
- Broad Achievement

The IDEA emphasizes the importance of assessing problem-solving abilities in mathematics, and the **WJ IV ACH** includes a new Math Problem Solving cluster consisting of math problem-solving skills with story problems and quantitative reasoning with number matrices. Math Calculation Skills and Broad Mathematics clusters are also available, as well as a new two-test Mathematics cluster is comprised of measures of calculation ability and problem solving.

A new two-test Written Language cluster provides a broadly applicable overall index of writing ability that includes spelling and sentence writing tasks. This cluster can be augmented by the addition of a timed writing test that contributes to the Broad Written Language cluster. Basic Writing Skills and Written Expression clusters are also available.

## SIMPLIFIED PROCEDURE FOR IDENTIFYING INTRA-ACHIEVEMENT STRENGTHS AND WEAKNESSES

The **WJ IV ACH** introduces an easy-to-use procedure for determining relative strengths and weaknesses within tests and clusters from three core areas of achievement. To use the procedure, evaluators administer Tests 1–6 in the Standard Battery. Results of this analysis will identify any relative strengths and weaknesses among test scores obtained for Letter-Word Identification, Applied Problems, Spelling, Passage Comprehension, Calculation, and Writing Samples.

**“A new procedure for determining strengths and weaknesses among areas of achievement easily adapts to selective testing needs.”**

The new Intra-Achievement Variation procedure easily adapts for individualized assessment. Examiners can now customize the analysis to accommodate additional test and cluster scores based on an individual’s specific needs. One or more tests, selected from ACH Tests 7–17, can be included in the same evaluation procedure. Clusters can also be identified—automatically—as relative strengths and weaknesses in the same, simplified procedure. Among three core domains of achievement, examiners are able to determine if an academic strength or weakness exists in Basic Reading Skills, Reading Fluency, Reading Comprehension, Math Calculation Skills, Math Problem Solving, Basic Writing Skills, and Written Expression.

## A NEW BENEFIT FOR ASSESSING ACADEMIC KNOWLEDGE

The Science, Social Studies, and Humanities tests are expanded in scope and updated in content to provide both full-length and fully interpretable test-level scores. These three tests comprise the Academic Knowledge cluster. The Academic Knowledge cluster provides information about the individual's level of knowledge in academic content areas relative to others his or her age.

The Academic Knowledge cluster score, when used in conjunction with other **WJ IV** achievement clusters, now provides—within the achievement battery alone—a highly useful comparison between an individual's overall level of academic knowledge and levels of academic achievement. This comparison will permit diagnostic achievement evaluators to quickly determine whether an individual's levels of academic achievement are commensurate with, or discrepant from, his or her broad academic knowledge. When used in conjunction with other information, this comparison may help determine whether a more comprehensive evaluation is needed. This decision is an important component of any tiered system of instructional intensity.

**Comparison of academic achievement scores to the Academic Knowledge cluster can help examiners answer the question, “Should this individual be considered for a more comprehensive evaluation?”**

## WJ IV TESTS OF ORAL LANGUAGE

Completely new to the **WJ IV**, a dedicated test easel contains a set of oral language and language-related measures that comprise an important diagnostic supplement to the **WJ IV COG** and **WJ IV ACH**. The **WJ IV OL** tests also function as a stand-alone battery of tests that are useful for oral language assessment, determination of English (and Spanish) language proficiency, and for comparison of strengths and weaknesses among oral language and language related abilities for a more complete reading, writing, or dyslexia evaluation. For example, the new Segmentation test offers examiners a highly predictive three-part test for measuring critical reading-related skills involved in breaking words into parts and phonemes. This test complements the Sound Blending test that measures the counterpart skill of blending sounds into words.

### TESTS IN THE WJ IV OL

- Test 1: Picture Vocabulary
- Test 2: Oral Comprehension
- Test 3: Segmentation—**NEW**
- Test 4: Rapid Picture Naming
- Test 5: Sentence Repetition
- Test 6: Understanding Directions
- Test 7: Sound Blending
- Test 8: Retrieval Fluency
- Test 9: Sound Awareness
- Test 10: Vocabulario sobre dibujos
- Test 11: Comprensión oral
- Test 12: Comprensión de indicaciones

### CLUSTERS IN THE WJ IV OL

- Oral Language
- Broad Oral Language—**NEW**
- Oral Expression
- Listening Comprehension
- Phonetic Coding—**NEW**
- Phonetic Coding-Extended—**NEW**
- Speed of Lexical Access—**NEW**
- Vocabulary\*—**NEW**
- Oral Language (Spanish)—**NEW**
- Broad Oral Language (Spanish)—**NEW**
- Listening Comprehension (Spanish)—**NEW**

\*Obtained when used with the WJ IV Tests of Cognitive Abilities



## NEW COGNITIVE-LINGUISTIC CLUSTERS

Two new clusters are introduced for in-depth evaluation of the presence and severity of any phonological and rapid automatic naming disabilities. The new Phonetic Coding cluster assesses two important abilities—combining sounds into whole words and breaking whole words into parts. The new Speed of Lexical Access cluster assesses rapid automatic naming and fluent associative retrieval of words. Deficits in one or both of these diagnostic clusters provide important information for accommodations or interventions in reading, writing, and any area of achievement or cognition where language is an important consideration.

The new three-test Broad Oral Language cluster can be used for comparison to current levels of academic achievement. This comparison will allow examiners to determine if an individual's levels of academic achievement are commensurate with, or discrepant from, his or her ability to comprehend oral language. This cluster is also available in Spanish (*Amplio lenguaje oral*) and—for the first time in any diagnostic system—allows evaluators to compare an

individual's level of academic achievement in English to his or her oral language ability in Spanish. For English-Spanish bilingual students, this can be an important comparison to suggest that a child is capable—if provided with appropriate instructional support—of academic achievement at the level of either his or her English or Spanish oral language abilities. For Spanish-language test administration, the **WJIVOL** includes procedures for the use of an ancillary examiner. The ancillary examiner procedure allows evaluators who are not proficient in Spanish to train and utilize a Spanish-proficient examiner so that this important comparison can be made. A comparison of English oral language ability to Spanish oral language ability can also be a critical first step in a comprehensive evaluation of an English-Spanish bilingual individual.

**“As a diagnostic supplement to the WJIVACH or COG, the Oral Language battery provides measures of listening comprehension, oral expression, sound awareness, phonetic coding, and speed of lexical access that can yield insights into observed learning problems. An individual's level of oral language comprehension—in English or Spanish—can be compared to his or her current levels of academic achievement.”**

The **WJIVOL** also includes distinct clusters for evaluation of Listening Comprehension and Oral Expression. A brief Sound Awareness test may be administered to screen for any phonological problems that may suggest the need for further evaluation.

## WJ IV TESTS OF COGNITIVE ABILITIES

The **WJ IV COG** is carefully engineered to be the most contemporary and broadly useful battery for an evaluation of strengths and weaknesses among cognitive abilities. Since CHC theory was first articulated almost 15 years ago, a great deal of research has both confirmed the merits of the theory and at the same time pointed to the need for increased specification, explanation, and amendments to the initial postulates. The **WJ IV COG** is designed to maintain the cutting edge of contemporary assessment practice by moving beyond the initial specification of CHC theory with an updated model for interpretation of test results. This is based on recent research that informs the nature of the constituent cognitive abilities that are measured by each test and cluster. New tests and clusters are based on broad psychometric evidence and neuroscientific research. In its redesign, emphasis has been placed on the most important cognitive abilities. The **WJ IV COG** tests and clusters yield important diagnostic information, are useful in identifying exceptionalities and disabilities, and can be directly linked to interventions or accommodations.

## TESTS IN THE WJ IV COG

### Standard Battery

- Test 1: Oral Vocabulary
- Test 2: Number Series
- Test 3: Verbal Attention—**NEW**
- Test 4: Letter-Pattern Matching—**NEW**
- Test 5: Phonological Processing—**NEW**
- Test 6: Story Recall
- Test 7: Visualization—**NEW**
- Test 8: General Information
- Test 9: Concept Formation
- Test 10: Numbers Reversed

### Extended Battery

- Test 11: Number-Pattern Matching
- Test 12: Nonword Repetition—**NEW**
- Test 13: Visual-Auditory Learning
- Test 14: Picture Recognition
- Test 15: Analysis-Synthesis
- Test 16: Object-Number Sequencing
- Test 17: Pair Cancellation
- Test 18: Memory for Words

## THE WJ IV COG INCLUDES 18 TESTS, SEVERAL OF WHICH ARE NEW

### Verbal Attention

Verbal Attention measures short-term working memory in a format that captures both the attention and verbal aspects of working memory. The test represents an authentic approach to measuring the ability to attend to orally presented material and then focus attention on a task requirement that requires a review of the contents of one's cognitive desktop in order to provide a correct response to a question.

### Letter-Pattern Matching

Letter-Pattern Matching assesses perceptual speed for orthographic patterns or the efficiency with which one can rapidly recognize and process grapheme patterns. Efficiency in recognizing orthographic patterns may be particularly related to the development of automaticity in foundational functions underlying reading and spelling performance.

### Phonological Processing

Phonological Processing measures the depth and breadth of word access and retrieval via phonology. This test of phonological connectivity and flexibility evaluates the effects of three phonological networking capabilities on lexical development.

### Visualization

Visualization is a two-part test of spatial relationships and the ability to mentally manipulate visual representations within the mind's eye. One part requires visual-spatial recognition, and the other requires a more cognitively complex two- or three-dimensional visual manipulation.

## Nonword Repetition

Nonword Repetition is a test of auditory processing that measures phonological memory and repetition of word-like stimuli.

Increasingly complex novel nonwords form the stimulus material that must be repeated exactly as modeled.

## CLUSTER INTERPRETATION EMPHASIZES ADVANCES MADE IN CHC THEORY

New clusters in the **WJ IV COG** reflect advances in CHC theory plus practical applications for interpretation, accommodation, and intervention. Short-Term Working Memory is widely recognized as a broad construct that refers to a dynamic, temporary storage system wherein information in a person's immediate awareness is processed and manipulated. Due to its predictive ability for performance in a wide variety of timed academic tasks, perceptual speed is elevated in importance in the **WJ IV COG**. This cluster is expanded in breadth to identify levels of performance with both timed orthographic and numeric processing tasks. A completely reformulated Auditory Processing cluster emphasizes the application of phonological processing and memory skills on both simple and cognitively complex tasks that provide useful diagnostic markers of academic abilities and disabilities.



## CLUSTERS IN THE WJ IV COG

- General Intellectual Ability
- Brief Intellectual Ability
- Gf-Gc Composite— **NEW**
- Comprehension-Knowledge (Gc)
- Comprehension-Knowledge Extended (Gc3)
- Fluid Reasoning (Gf) Visual Processing (Gv)
- Fluid Reasoning-Extended (Gf3)
- Short-Term Working Memory (Gwm)
- Short-Term Working Memory Extended (Gwm3)
- Cognitive Processing Speed (Gs)
- Perceptual Speed (P)— **NEW**
- Auditory Processing (Ga)
- Auditory Memory Span (MS)\*
- Long-Term Retrieval (GlR)
- Number Facility (N)— **NEW**
- Cognitive Efficiency
- Cognitive Efficiency-Extended

*\*Obtained when used with the WJ IV Tests of Oral Language*

The **WJ IV COG** is organized into the Standard Battery (Tests 1–10) and the Extended Battery (Tests 11–18). Several new interpretive features will make the **WJ IV COG** widely applicable for a variety of assessment needs. For many assessment purposes, administration of a set of tests from the Standard Battery provides a complete cognitive protocol, including an assessment of general intellectual ability and up to three important CHC factors. An easy-to-use Intra-Cognitive Variation procedure allows examiners to customize a set of tests for each administration and obtain important information on cognitive strengths and weaknesses at both the test and cluster level. For more extensive evaluation questions or measurement of a wide array of clinically sensitive cognitive processes and executive functions, tests from the Extended Battery provide additional diagnostic information.

### Standard Battery

A wealth of information can be obtained from the Standard Battery alone. The Standard Battery includes seven tests that are used to derive the General Intellectual Ability (g) score. Factor scores for Comprehension-Knowledge (Gc), Fluid Reasoning (Gf, and Short-



Term Working Memory (Gwm) are obtained from the Standard Battery. The efficiency with which an individual can perform cognitive tasks automatically is measured by Cognitive Efficiency. In addition, a new *Gf-Gc Composite* is introduced that many professionals will find valuable as a predictor score for evaluation of strengths and weaknesses across all areas of cognitive processing, linguistic competency, and academic performance.

### **Extended Battery**

When used in conjunction with tests in the Standard Battery, the Extended Battery provides greater breadth and/or depth of information about cognitive processing, including factor scores for Perceptual Speed (P), Auditory Processing (Ga), Long-Term-Retrieval (Glr), Visual Processing (Gv), and Cognitive Processing Speed (Gs). Any of the tests from the extended battery can be included in the Intra-Cognitive Variation analysis, along with the CHC broad and narrow clusters that are created from the administered tests.

### **Intra-cognitive strengths and weaknesses**

An analysis of variations among the first seven tests in the cognitive battery can reveal a relative strength or weakness in one or more of the narrow abilities measured by the test. This is often sufficiently informative; however, the procedure can be expanded to obtain information on relative strengths and weaknesses from a wide variety of cognitive processing and language tests and their corresponding broad and narrow abilities. This carefully engineered and technically sound procedure allows for other tests, clusters, or CHC factor scores to be evaluated—selectively or as part of a multi-faceted evaluation—in the same analysis. For example, if an evaluator is interested in investigating the existence

of a possible strength or weakness in perceptual speed, an additional perceptual speed test (Number-Pattern Matching) can be selectively administered and included in the same analysis and interpreted at both the test and cluster level. This feature allows **WJ IV COG** examiners who employ selective testing principles to obtain—for any given individual's unique needs—the most diagnostic information in the least amount of testing time.

### **Gf-Gc Composite and comprehensive evaluation of relative strengths and weaknesses**

An important new cluster is introduced in the **WJ IV COG** that is comprised of four tests from the Standard Battery. Oral Vocabulary and General Information are measures of Comprehension-Knowledge (Gc). Number Series and Concept Formation are measures of Fluid Reasoning (Gf). In the **WJ IV COG**, these four tests combine to form the *Gf-Gc Composite*—a highly reliable combined index of crystallized knowledge and fluid intelligence that may be useful for many evaluative purposes, particularly as a comparison score in a comprehensive evaluation of relative strengths and weaknesses among a broad variety of areas of academic achievement, oral language abilities, and cognitive processing.



The new **WJ IV Gf-Gc Composite** score facilitates, in one co-normed system, the most complete evaluation of strengths and weaknesses across multiple domains. For the first time in any normed diagnostic system, academic deficits can be associated with cognitive processing weaknesses and evaluated in light of individual strengths. This single analysis can reveal patterns of covarying abilities that may help provide explanations for limitations in academic performance and may yield important diagnostic information for planning interventions and/or accommodations.

**“Understanding relative processing strengths and weaknesses and academic deficits in relationship to the Gf-Gc Composite can lead to individualized instruction designed to target identified learning needs.”**



## **INTERPRETIVE CLUSTERS THAT CAN BE COMPARED TO THE GF-GC COMPOSITE FOR A COMPREHENSIVE ANALYSIS OF STRENGTHS AND WEAKNESSES**

### **Cognitive Processing**

- Short-Term Working Memory
- Perceptual Speed
- Cognitive Processing Speed
- Auditory Processing
- Long-Term Retrieval
- Visual Processing
- Auditory Memory Span\*
- Number Facility
- Cognitive Efficiency

### **Achievement**

- Reading
- Broad Reading
- Basic Reading Skills
- Reading Comprehension
- Reading Fluency
- Reading Rate
- Mathematics
- Broad Mathematics
- Math Calculation Skills
- Math Problem Solving
- Written Language
- Broad Written Language
- Written Expression
- Basic Writing Skills
- Academic Skills
- Academic Applications
- Academic Fluency
- Phoneme/Grapheme Knowledge

### **Oral Language**

- Speed of Lexical Access
- Phonetic Coding

*\*Obtained when used with the WJ IV Tests of Oral Language.*

## SUMMARY

The **Woodcock-Johnson IV** sets a new standard for evaluation of individual strengths and weaknesses among contemporary, theory-based measures of academic achievement, oral language, and cognitive abilities. Based on an evolved model of CHC theory, the new tests and interpretive clusters are designed to meet current and future assessment needs. A new battery design makes the **WJ IV** easier to use than ever before. The new *Tests of Oral Language* are an important diagnostic supplement to both the *Tests of Achievement* and *Tests of Cognitive Abilities*. Together, these three co-normed batteries comprise the most comprehensive system for the assessment needs of diagnostic evaluators, language clinicians, and psychologists who strive to maintain state-of-the-science practices in individualized assessment and who want to obtain the most meaningful information for diagnosis, intervention, and educational planning.

## References

*Individuals with Disabilities Education Improvement Act of 2004, P.L.N., 118 Stat 2647. (2004).*

Schrank, F.A., McGrew, K.S., Mather, N., & Woodcock, R.W. (2014). *Woodcock-Johnson IV*. Rolling Meadows, IL: Riverside Publishing.

For more information on the new **Woodcock-Johnson IV**, please contact your local **HMH - Riverside representative**, call **800.323.9540** or visit **[www.wj-iv.com](http://www.wj-iv.com)**.

Woodcock-Johnson®, Houghton Mifflin Harcourt™, and HMH® are trademarks or registered trademarks of Houghton Mifflin Harcourt Publishing Company. © Houghton Mifflin Harcourt Publishing Company. All rights reserved. Printed in the U.S.A. 02/14 MS96730

The logo for Woodcock Johnson IV features the text "Woodcock Johnson IV" in a blue, sans-serif font. A blue arc is positioned above the text, starting under "Woodcock" and ending under "Johnson".

Woodcock  
Johnson® IV