

Opportunity Title: Cognitive science and structured analysis

Opportunity Reference Code: IC-18-13

Organization Office of the Director of National Intelligence (ODNI)

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How to Apply **Create and release your Profile on Zintellect** – Postdoctoral applicants must create an account and complete a profile in the on-line application system. **Please note: your resume/CV may not exceed 2 pages.**

Complete your application – Enter the rest of the information required for the IC Postdoc Program Research Opportunity. The application itself contains detailed instructions for each one of these components: availability, citizenship, transcripts, dissertation abstract, publication and presentation plan, and information about your Research Advisor co-applicant.

Additional information about the IC Postdoctoral Research Fellowship Program is available on the program website located at: <https://orau.org/icpostdoc/>.

If you have questions, send an email to ICPostdoc@orau.org. Please include the reference code for this opportunity in your email.

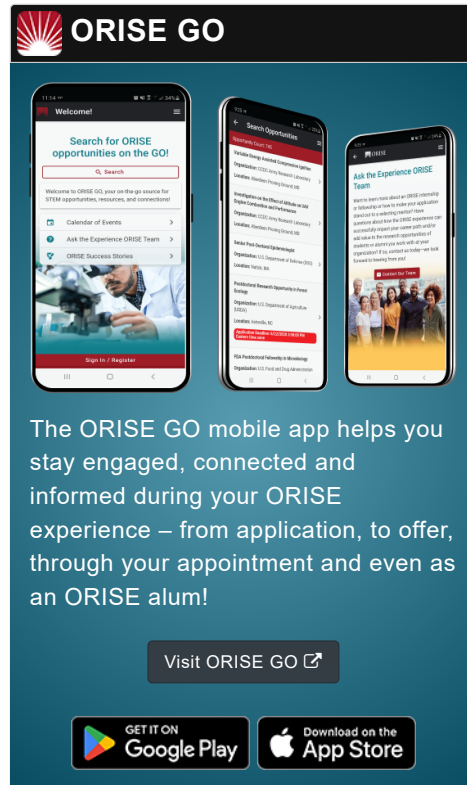
Application Deadline 3/12/2018 11:59:00 PM Eastern Time Zone

Description **Research Topic Description, including Problem Statement:**

The intelligence profession has increasingly used structured analytic techniques (SAT) to help guide its thinking about challenging issues. Richards Heuer's 1999 work, *Psychology of Intelligence Analysis*, highlighted biases and heuristics and their implications for analysis; in 2011, Nobel laureate Daniel Kahneman added his insight to analysis that reinforced the use of SATs; and in 2017, Randy Pherson has continued the study of SATs to mitigate bias and intuitive traps in analysis. Very little empirical research, however, has assessed the efficacy of SATs and thus assumptions about their utility remain untested. Additionally, new insights into cognitive bias and heuristics have emerged. How might recent advances in cognition inform our understanding of structured approaches, the application of new techniques, and ways of mitigating heuristics and biases in our thinking? Can existing data (no human subject research including surveys are permitted) help us empirically test the proposition that SATs can help us mitigate bias and intuitive traps in our analysis?

Example Approaches:

- Have cognitive science, psychology, and other related fields



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since the publication of Heuer's book *Psychology of Intelligence Analysis* identified new heuristics or cognitive biases in decision making or reasoning that are relevant to intelligence analysis?

- What advances in cognitive science, psychology, or neuroscience hold promise in mitigating heuristics and cognitive biases as they apply to intelligence analysis? And, which new methods in critical thinking apply to these advances?
- Using existing data, is it possible to test the proposition that structured analytic techniques mitigate cognitive bias and limitations? If so, under what conditions and to what extent are they effective against which biases and limits?
- Using existing data, under what conditions is unstructured judgment more reliable than structured analysis?
- Do new discoveries in cognitive science or psychology enlighten us to alternative approaches in structured analysis that might outperform existing methods?

Note: No Human Subject Research is authorized for the IC Postdoctoral Research Fellowship Program.

Qualifications







Postdoc Eligibility

- U.S. citizens only
- Ph.D. in a relevant field must be completed before beginning the appointment and within five years of the application deadline
- Proposal must be associated with an accredited U.S. university, college, or U.S. government laboratory
- Eligible candidates may only receive one award from the IC Postdoctoral Research Fellowship Program.

Research Advisor Eligibility

- Must be an employee of an accredited U.S. university, college or U.S. government laboratory
- Are not required to be U.S. citizens

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.
- **Discipline(s):**
 - **Chemistry and Materials Sciences** (12 )
 - **Communications and Graphics Design** (6 )
 - **Computer, Information, and Data Sciences** (16 )
 - **Earth and Geosciences** (21 )
 - **Engineering** (27 )
 - **Environmental and Marine Sciences** (14 )

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- **Life Health and Medical Sciences** (45 👁)
- **Mathematics and Statistics** (10 👁)
- **Other Non-Science & Engineering** (5 👁)
- **Physics** (16 👁)
- **Science & Engineering-related** (1 👁)
- **Social and Behavioral Sciences** (28 👁)