



Online Ethics Center
FOR ENGINEERING AND SCIENCE

Survey of Organizational Research Climate (SOURCE)

Author(s)

A. Lauren Crain
Brian C. Martinson
Carol R. Thrush

Description

The Survey of Organization Research Climate is a validated instrument specifically designed to measure the climate of research integrity in academic organizations.

Body

Home Page: <https://sites.google.com/site/surveyoforgresearchclimate/>

Description: The SOURCE is the first full-scale survey designed to assess the organizational climate for responsible research practices both in a person's general organizational setting (an academic institution, for example) and in a person's specific affiliated workgroup or division (a mechanical engineering department). It can be used for institutional self-assessment to ensure that local organizational climates are conducive to ethical, professional and sound research practices and can help raise awareness about responsible research practices. It can also help assess the impact of initiatives to improve the ethical climate of research and to monitor an organization's climate for research integrity over time. The SOURCE was initially developed and validated among research personnel in academic health centers and has also been used on university campuses within research groups and departments.

What it Measures: the SOURCE measures the climate of research integrity in academic organizations. It can be used to characterize and compare research integrity climates, assess the impact of educational and mentoring approaches being used to improve the ethical research climate and identify areas for improvement in this area.

Format: The SOURCE consists of 32 multiple choice items that can be administered online or via paper to research-engaged organizational members.

Disciplines it Assesses

- Engineering
- Physical Sciences
- Social Sciences
- Life and Environmental Sciences

Audience: Research-engaged organization members, including graduate students, post-doctoral trainees, and other researchers connected with graduate education.

Use Notes: As the SOURCE measures the climate of research integrity, this instrument works best in small, face-to-face work groups that have common physical proximity, goals, or supervision. The measure comes with a user's manual with detailed instructions on the proper use and administration of this measure.

Access/For More Information: The SOURCE is available to end-users via completion of a copyright license for use in a non-commercial, research, and quality improvement purposes. For more information, visit <https://sites.google.com/site/surveyoforgresearchclimate/>.

The National Center for Professional and Research Ethics and the University of Illinois, Urbana Champaign has worked with the developers of SOURCE to create a cooperative group that provides an online platform hosting the SOuRCe. The infrastructure allows an institution to contract with NCPRE to manage the semi-automated survey fielding, process the initial data cleaning and summarization of scale means, and generation of survey reports. For more information visit the NCPRE website at: <https://ethicscenter.csl.illinois.edu/source/>.

Associated References

Crain, A., B.C. Martinson, and C.R. Thrush. 2013. "Relationships Between the Survey of Organizational Research Climate (SORC) and Self-Reported Research Practices." *Science & Engineering Ethics* 19 (3):835-850. doi: 10.1007/s11948-012-9409-0.

- *The Survey of Organizational Research Climate (SORC) is a validated tool to facilitate promotion of research integrity and research best practices. This work uses the SORC to assess shared and individual perceptions of the research climate in universities and academic departments and relate these perceptions to desirable and undesirable research practices. An anonymous web- and mail-based survey was administered to randomly selected biomedical and social science faculty and postdoctoral fellows in the United States. Respondents reported their perceptions of the research climates at their universities and primary departments, and the frequency with which they engaged in desirable and undesirable research practices. More positive individual perceptions of the research climate in one's university or department were associated with higher likelihoods of desirable, and lower likelihoods of undesirable, research practices. Shared perceptions of the research climate tended to be similarly predictive of both desirable and undesirable research practices as individuals' deviations from these shared perceptions. Study results supported the central prediction that more positive SORC-measured perceptions of the research climate were associated with more positive reports of research practices. There were differences with respect to whether shared or individual climate perceptions were related to desirable or undesirable practices but the general pattern of results provide empirical evidence that the SORC is predictive of self-reported research behavior.*

Martinson, B. C., C. R. Thrush and A. Lauren Crain (2013). "Development and validation of the Survey of Organizational Research Climate (SORC)." *Science and Engineering Ethics* 19(3): 813-834.10.1007/s11948-012-9410-7

- *Development and targeting efforts by academic organizations to effectively promote research integrity can be enhanced if they are able to collect reliable data to benchmark baseline conditions, to assess areas needing improvement, and to subsequently assess the impact of specific initiatives. To date, no standardized and validated tool has existed to serve this need. A web- and mail-based survey was administered in the second half of 2009 to 2,837 randomly selected biomedical and social science faculty and postdoctoral*

fellows at 40 academic health centers in top-tier research universities in the United States. Measures included the Survey of Organizational Research Climate (SORC) as well as measures of perceptions of organizational justice. Exploratory and confirmatory factor analyses yielded seven subscales of organizational research climate, all of which demonstrated acceptable internal consistency (Cronbach's α ranging from 0.81 to 0.87) and adequate test-retest reliability (Pearson r ranging from 0.72 to 0.83). A broad range of correlations between the seven subscales and five measures of organizational justice (unadjusted regression coefficients ranging from 0.13 to 0.95) document both construct and discriminant validity of the instrument. The SORC demonstrates good internal (alpha) and external reliability (test-retest) as well as both construct and discriminant validity.

Wells, J. A., C. R. Thrush, B. C. Martinson, T. A. May, M. Stickler, E. C. Callahan and K. L. Klomparens (2014). "Survey of organizational research climates in three research intensive, doctoral granting universities." *Journal of Empirical Research on Human Research Ethics* 9(5): 72-88. doi: 10.1177/1556264614552798.

- *The Survey of Organizational Research Climate (SOuRCe) is a new instrument that assesses dimensions of research integrity climate, including ethical leadership, socialization and communication processes, and policies, procedures, structures, and processes to address risks to research integrity. We present a descriptive analysis to characterize differences on the SOuRCe scales across departments, fields of study, and status categories (faculty, postdoctoral scholars, and graduate students) for 11,455 respondents from three research-intensive universities. Among the seven SOuRCe scales, variance explained by status and fields of study ranged from 7.6% (Advisor-Advisee Relations) to 16.2% (Integrity Norms). Department accounted for greater than 50% of the variance explained for each of the SOuRCe scales, ranging from 52.6% (Regulatory Quality) to 80.3% (Integrity Inhibitors). It is feasible to implement this instrument in large university settings across a broad range of fields, department types, and individual roles within academic units. Published baseline results provide initial data for institutions using the SOuRCe who wish to compare their own research integrity climates.*

Rights

Use of Materials on the OEC

Resource Type

Assessment Tools

Parent Collection

Evaluation Tools

Topics

Organizational Climate

Discipline(s)

Research Ethics

Teaching Ethics in STEM