



ILLINOIS

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

ncpre



National Center for
Professional and
Research Ethics

 **CSL:** COORDINATED
SCIENCE LAB

NCPRE Illinois/NTU Leadership Retreat

Leading the Research University of the Future

20-21 November 2014

STEM Department

You have been offered the headship of Department B in a STEM discipline at an R1 university. You have learned that it is seeing steady enrollment growth locally, following national trends, and that its research funding is solid if not stellar. It is ranked in the top 12-15 nationally.

You're told that the unit had a much better internal culture before the last head (who served two terms and was seen as something of an autocrat) and that as a result, morale is low, and that it continues to decline. While you've heard the old academic joke that "faculty morale is always at an all-time low," you also recently received a copy of the unit's Survey of Organizational Research Climate report, and are surprised and a bit taken aback by its results. Consistent with the sense that there may be some issues in that area, you have heard that the interim head had trouble getting people to contribute to the unit's internal service needs (committees, P&T, etc.), much less participate on committees campuswide.

In your interviews, it was clear that the faculty expect their next head to advocate for the unit and to improve its financial resources as their general sense is that the department does not get its due from the college or campus. At the same time, the dean is telling you the department should be much higher ranked and more visible than it is and the job of the next head is to improve the situation—and that without a strong plan, no additional college or campus investments beyond your startup package will be forthcoming.

You have been provided with a set of metrics on the unit available from the institutional research office. Review them, with an eye to characterizing the unit's situation .

1. What do the data tell you about this unit beyond what you've been told?
2. What other data do you need to assess its status?
3. What steps would you take to improve this unit?

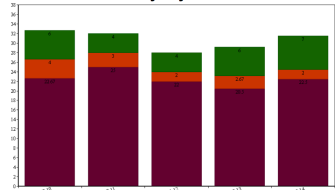
University: Research I

Campus: Main

Dept: CDB VPDO AP GA CS Dept Campus Dept Campus *Trend lines denote 5 years of data* Year:2014

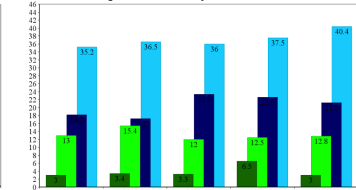
Demographics

Faculty by Rank

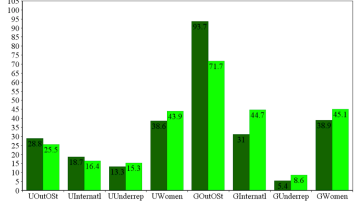


Avg Undergrad Enrollment: 503.2

Faculty: Underrep and Women

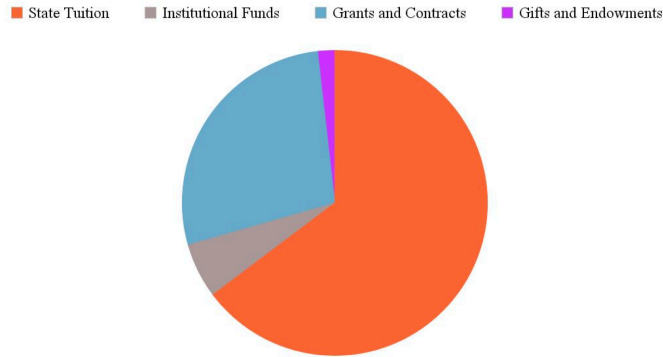


Undergrad and Grad: Out of State, Intern'l, Underrep. and Women

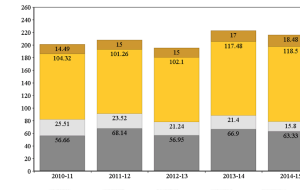


Financial Vitality

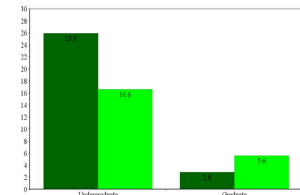
Department Income



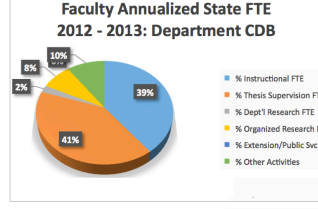
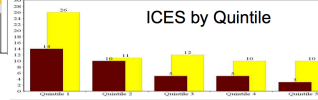
Staff by Classification



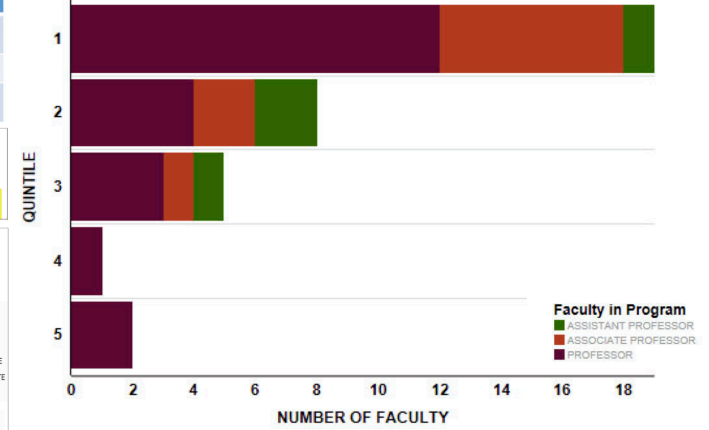
Ratio FTE Student:Faculty



Research FY 2014 in (000s)	Department	Campus	% of Campus
Sponsored Project Exp from Unit Faculty	4,705.67	453,615.30	1.03
ICR Generated	1,684.75	128,279.00	1.31
Sponsored \$/Faculty FTE	89.34	242.67	---



Scholarly Indicators

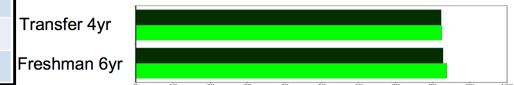


Educational Indicators

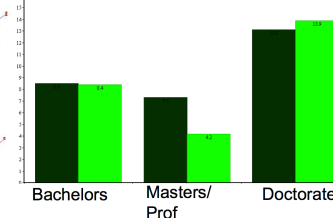
Degrees Awarded	Last year	5 year average	Per TS Fac Dept	Per TS Fac Campus
Bachelors	452		9.2	4.1
Masters/Prof	22.3		.4	2
Doctorate	30.1		.5	.4

Teaching and Student Outcomes	5 yr Avg
Dept credit hours taught	45113.5
Dept credit hours taught/TS Faculty	896.0
Campus credit hours taught/TS Faculty	754.0

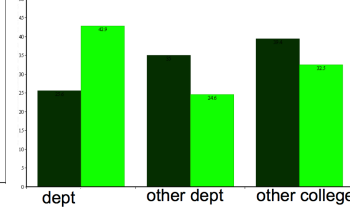
Graduation Rate Bachelors



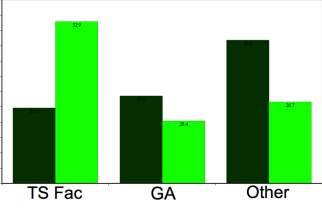
Time to degree 5yr avg (in sems)

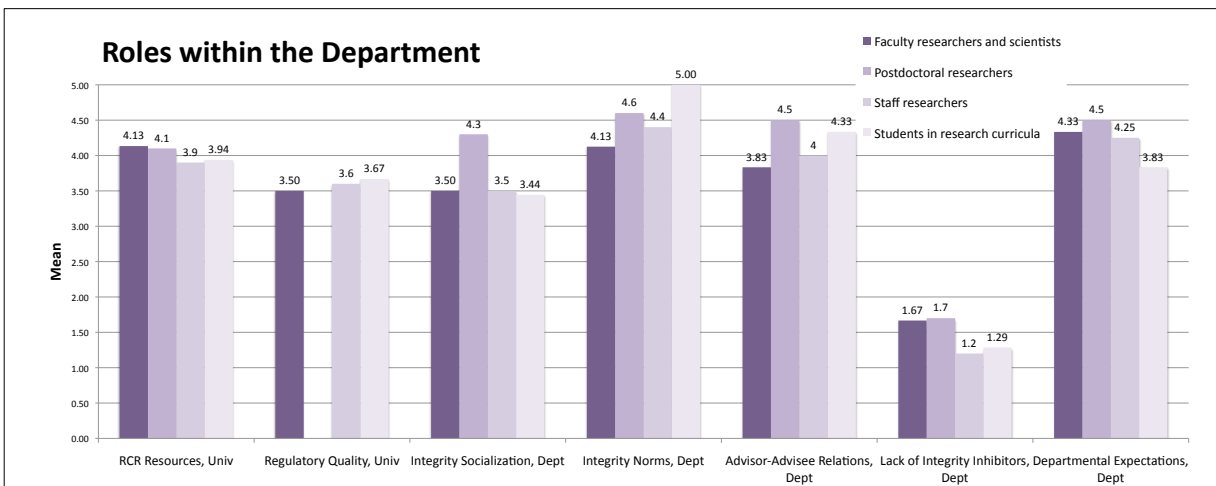
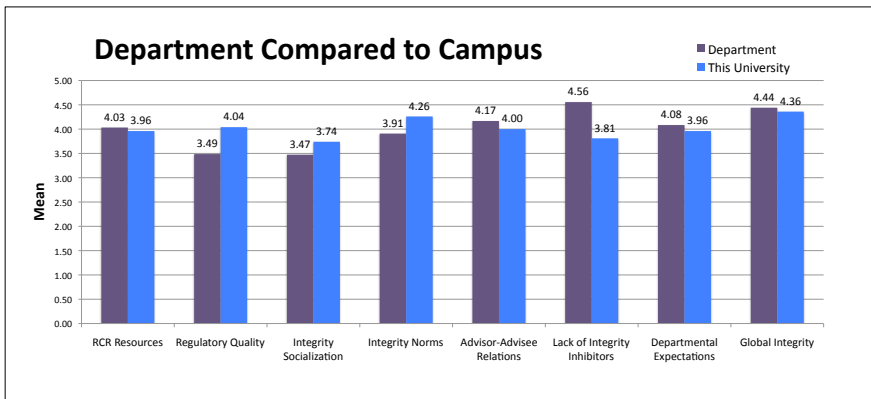
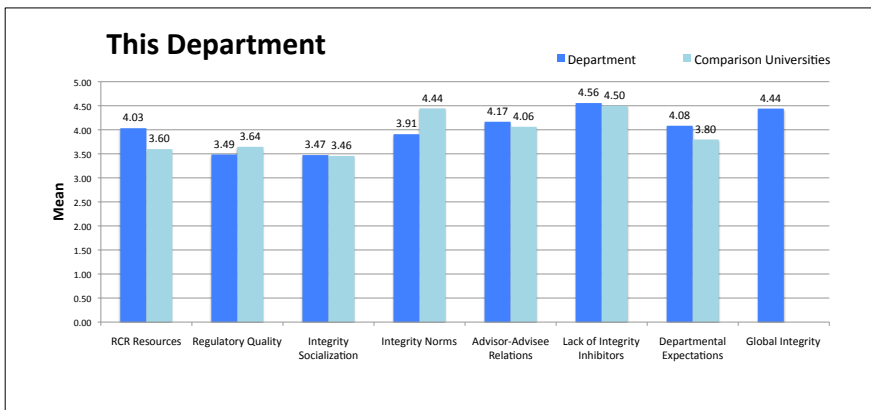


%Credit hrs taught by enrollment of student



%Who is teaching undergrad





Results by Index Showing Comparison to Other Universities

Scale		Valid N	Mean	Std Dev	Low	Moderate	High	N Miss
RCR Resources	This University	52.00	4.03	1.14	33.33	50.00	16.67	1.00
	Comparison Universities	43.00	3.60	0.84	41.86	39.53	18.60	25.00
Regulatory Quality	This University	39.00	3.49	1.10	48.72	35.90	15.38	54.00
	Comparison Universities	15.00	3.64	0.75	40.00	46.67	13.33	53.00
Integrity Socialization	This University	47.00	3.47	1.12	33.33	66.67	0.00	1.00
	Comparison Universities	50.00	3.46	1.08	42.00	34.00	24.00	18.00
Integrity Norms	This University	72.00	3.91	1.09	22.22	45.83	31.94	21.00
	Comparison Universities	51.00	4.44	0.61	5.88	33.33	60.78	17.00
Advisor-Advisee Relations	This University	60.00	4.17	0.62	0.00	83.33	16.67	1.00
	Comparison Universities	52.00	4.06	0.64	15.38	55.77	28.85	16.00
Absence of Integrity Inhibitors	This University	73.00	4.56	0.81	14.29	14.29	71.43	0.00
	Comparison Universities	50.00	4.50	0.61	10.00	20.00	70.00	18.00
Departmental Expectations	This University	69.00	4.08	0.79	14.29	57.14	28.57	0.00
	Comparison Universities	59.00	3.80	0.74	27.12	50.85	22.03	9.00
Global Integrity	This University	7.00	4.44	0.65	0.00	28.57	71.43	0.00

Each bar shows the mean response on a scale of 1 to 5. A higher score indicates a more positive climate (even for those indices with negative labels; these are reverse-coded).

*As results are compared across institutions, self-reported Discipline is used rather than department.

Results where N is lower than 5 are omitted.

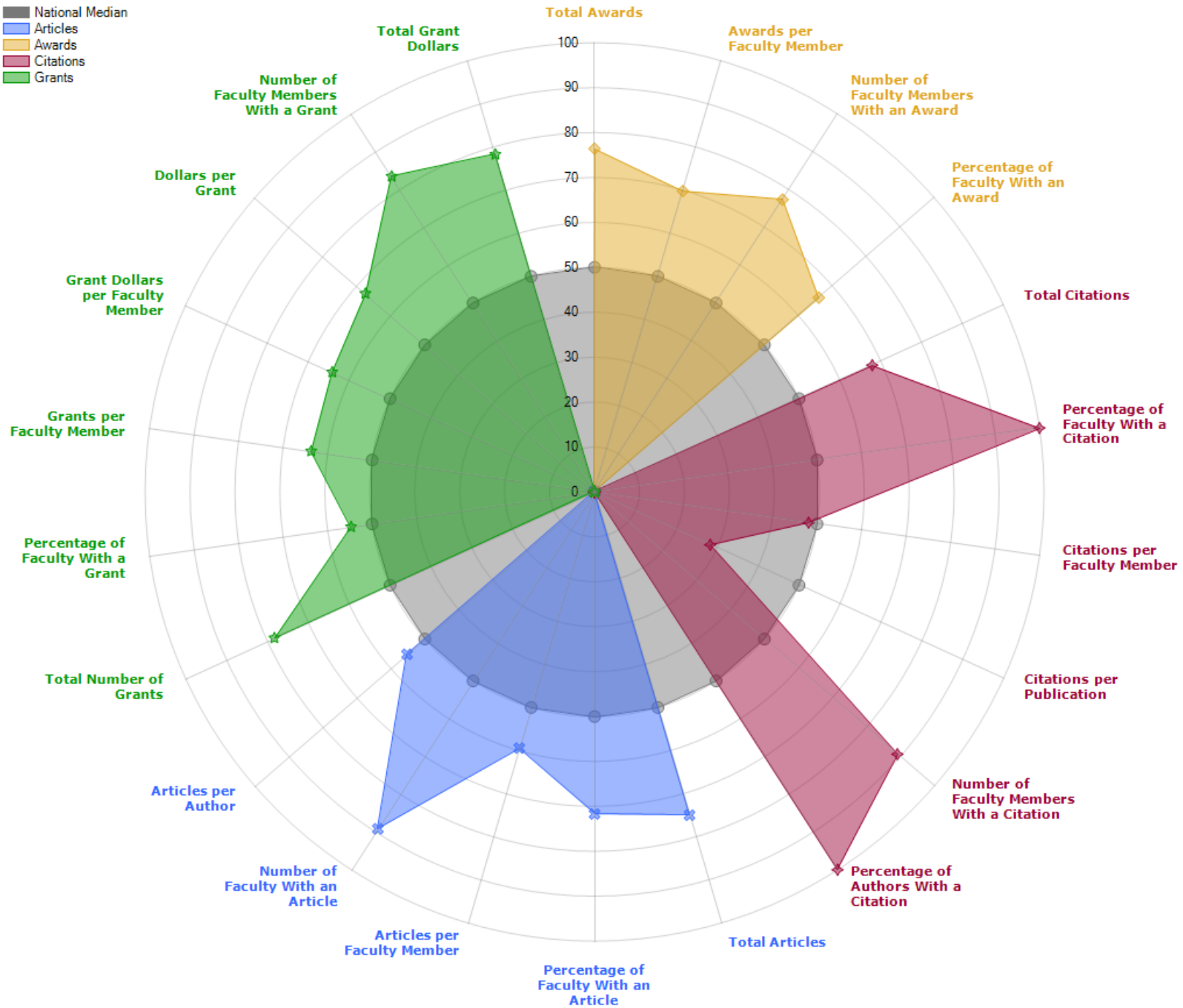
All data are from the SOURCE instrument results for the University of Illinois at Urbana-Champaign.

Color highlights indicate 5 or more percentage points above or below the comparison group, respectively. (Green is desirable; red is undesirable.)

Items where more than 40% of respondents reported negatively

RCR Resources	43.93
How accessible are your university's policies/guidelines that relate to responsible research practices?	50.00
How effectively do the available educational opportunities at your university teach about responsible research practices (e.g., lectures, seminars, web-based courses)?	41.38
How accessible are individuals with appropriate expertise that you could ask for advice if you had a question about research ethics?	-
Regulatory Quality	44.68
How respectful to researchers are the regulatory committees or boards that review the type of research/scholarship you do (e.g., IRB, IACUC)?	53.70
How fair to researchers/scholars are the regulatory committees or boards that review the type of research you do (e.g., IRB, IACUC)?	-
Integrity Socialization	66.67
How consistently do advisors/supervisors communicate to their advisees/supervisees clear performance expectations related to intellectual credit?	64.86
How effectively are junior researchers socialized about responsible research practices?	-
Lack of Integrity Inhibitors	50.00
How true is it that pressure to publish has a negative effect on the integrity of research/scholarship in your department/program?	-

- National Median
- Articles
- Awards
- Citations
- Grants



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Quadrant One: Demographics

- a** Faculty distribution by rank. **Color legend for ranks in chart 2d.**
- b** Demographics of faculty. **Under-represented, then women; dept/campus.**
- c** Distribution of staff by category: **Support staff, grad assistants, visiting/postdocs/other, non-faculty academics.**
- d** Student enrollment. **Five-year averages (spark lines). Current year listed.**
- e** Student demographics. **Out of state; international; underrepresented; women.**
- f** Ratio of students to faculty. **Unit vs. campus.**

Quadrant Two: Scholarly Productivity

- a** Teaching evaluations by quintile. **Grad students vs. faculty, sorted by quintile rankings.**
- b** Research Funding. **In 000s.**
- c** Faculty Effort/Time. **Dept vs. campus.**
- d** Faculty Scholarly Productivity by Quintiles. **Academic Analytics data; by faculty rank.**

Quadrant Three: Financial Vitality

- a** Expenditures by source. **Estimate of tuition generated is number of credit hours taught by campus rate/credit hour (\$421).**
- b-e** Spark lines. **Five year trends Each dot one year.**

Quadrant Four: Financial Vitality

- a** Degrees awarded. **Five year spark lines.**
- b** Credit hours taught. **Five year averages.**
- c** Graduation rates. **Dept vs. campus.**
- d** Time to degree. **Dept vs. campus.**
- e** Hours taught. **Dept vs. campus.**
- f** Teaching by role. **Dept vs. campus.**

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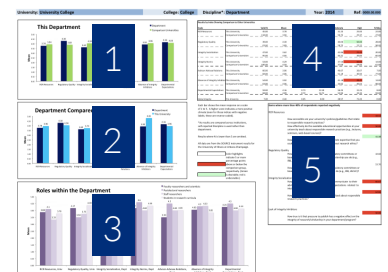
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The Survey of Organizational Research Climate (SOURCE)

The SOURCE is the only validated instrument that assesses integrity climate for research. Its 32 questions seek answers from 1 to 5, with 5 indicating an abundance of some favorable aspect of organizational climate, and 1 indicating a relative absence. Results are available by role (faculty, post-doc, research staff, graduate student) and by discipline, as mapped to CGS classifications to permit comparisons across institutions. Discipline is self-selected by respondents from a drop-down menu of CGS disciplines at the time of response.

Questions are distributed across seven indices, each of which comprises multiple questions; for example, six questions make up the "RCR Resources" index to give an overall mean score. Then these mean scores can be generated for various groups of respondents, and compared.

1. *RCR resources* supporting good research practice
2. *regulatory quality*: quality of regulatory boards and committees
3. *integrity socialization*: inculcating norms such as honesty, attribution
4. *integrity norms*: practice of research integrity is valued
5. *advisor-advisee relations*: quality of relations
6. *integrity inhibitors*: pressures to cut corners or reduce integrity
7. *departmental expectations*: for publication and external funding



Reading a departmental summary sheet

- 1 Department vs. disciplinary peers. Results for each of the seven indices plotted against comparison database at peer institutions. Is the unit in line with its peers in terms of integrity climate?
- 2 Department vs. other campus units. Are the unit's results for each index at or near the campus norm?
- 3 Perceptions within the unit by role. Representing internal responses by roles (faculty, postdoc, grad student). If the lightest bars are lower than the other bars, it indicates graduate students have a less positive view of the research climate than others.
- 4 Summarized unit responses by index. The N, mean, and standard deviation for each index are presented, as well as what percent replied unfavorably, neutrally and favorably over each index, and an indication of how many responses had to be left out of the calculations ("N Miss"). Color highlights indicate five or more percentage points above or below the comparison group, respectively. Green is desirable; red is undesirable.
- 5 Questions 40% + negative responses. Every question on which at least 40% of unit respondents answered negatively.

Points to remember

Gaps in the Roles chart are to maintain respondents' anonymity: there are no reports on any group in a unit when its respondents number five or fewer.

Disciplines that do not interact with IRB or IACUC may have large numbers of "misses" in the regulatory index.

The SOURCE shows significant correlations between its measures of organizational climate and self-reported, research-related behaviors of the respondents in the validation sample (roughly n=1000 academic faculty and postdocs). The self-reported behaviors ranged from the ideal up to and including misconduct. Many of the behaviors reported on in that publication would be considered to undermine the quality of academic research.