

**SCHOOL OF PUBLIC HEALTH FACULTY CONSULTATIVE COMMITTEE
FACULTY WORK LIFE SURVEY 2011 REPORT**

BACKGROUND

The School of Public Health (SPH) Faculty Consultative Committee (FCC) conducted a survey in early spring 2011 to measure SPH faculty perceptions of divisional climate, planning, leadership, performance, support, satisfaction, and identity. The objectives of this survey were to measure these aspects of quality of work life among the SPH faculty and thereby to help the FCC and each division in the SPH identify issues that each may need to address. The FCC first administered this survey in 2009 and hopes to repeat this survey every other year to track changes in work related issues. The 2011 survey is very similar to the 2009 survey with the exception that questions on burnout have been dropped because the 2009 results showed little variance and questions in procedural and interactional fairness were dropped because of weak measurement properties. Questions on identity with profession, school, and division were added because research shows that identification with an occupation or an organizational unit are related to prosocial behaviors.¹ Questions evaluating the annual performance review process were also added to assess faculty perceptions of its quality. A final change was the inclusion of tenured, tenure track not tenured, and contract faculty member as an analysis variable.

The FCC, along with the SPH Dean, Associate Deans, and Division Heads, worked to develop this survey based on an initial draft developed by the FCC. Concepts to measure were drawn from concepts identified in organizational research as important correlates of organizational processes (e.g., climate measures such as psychological safety, helping, inclusiveness, conflict, and constructive conflict)², distributive³, identity, and satisfaction. The FCC also identified other areas that they felt were likely to be of interest to the faculty, such as divisional support of work activities, performance evaluation processes and criteria, planning and leadership. The draft survey was reviewed with the SPH Deans and Division Heads. The survey was cognitively tested in advance by administering it to the FCC members and was refined based on their comments and responses. A PDF file showing the survey questions as administered is posted with this report at the FCC web site.

The administration of this survey to the SPH faculty took place during Spring semester, 2011 via SurveyMonkey. A list of all SPH faculty with emails was obtained from the Dean's office. All SPH faculty at the levels of Assistant Professor, Associate Professor, and Full

Division	Sampled	Responded	Percent
Biostatistics	22	15	68.2%
Environmental Health Sciences	17	12	70.6%
Epidemiology & Community Health	45	33	73.3%
Health Policy & Management	27	24	88.9%
SPH	1	0	0.00%
Not answered		3	
Total	112	87	77.7%

121 faculty were identified (adjuncts were not included). The dean and division heads were excluded (5). 4 opted out of Survey Monkey. 112 were available to respond.

¹ Tyler, Tom R., and Steven L. Blader. 2003. "The Group Engagement Model: Procedural Justice, Social Identity, and Cooperative Behavior." *Personality and Social Psychology Review* 7:349-361
² Kozlowski, S. W. J. and D. R. Ilgen. 2006. "Enhancing the Effectiveness of Work Groups and Teams." *Psychological Science in the Public Interest* 7(3): 77-124.
³ Cropanzano R, Bowen DE, Gilliland SE. The Management of Organizational Justice. *Academy of Management Perspectives* (2007); 34-48.

Professor (except for adjunct faculty, the Dean, and Division Heads) received an invitation to take this survey via email. Four faculty opted out because they had requested SurveyMonkey to exclude them from on-line surveys. Three reminder emails were made to non-respondents to encourage response. Table 1 shows the response rates. Not all items will have the same number of responses because most items included a Don't Know/Not Applicable category, and respondents could refuse to answer any question. Of the individuals responding to the gender question 37 were female and 45 male (5 missing). 49 respondents were tenured, 19 were tenure track, and 13 were contract (6 missing). 25 were Assistant Professors, 23 were associate professors, and 32 were full professors (6 missing). There may be fewer responses to individual items because respondents could skip questions.

To maximize confidentiality and reduce the likelihood that individual respondents could be identified, a number of steps were taken. First, background measures were limited to division, level, and gender. Second, no identifying data was captured by SurveyMonkey (e.g., email id, IP address). Third, the survey was administered by SPH Electronic Communications Director Mark Engebretson in the Dean's office and he maintains the only copy of the data. Fourth, the analysis was done by emailing Stata programs to Mark to run and he would then send the aggregate results that did not identify individuals back to the FCC. Fifth, the policy was adopted to not execute analyses where the number of faculty in a cell would be low (e.g., interacting division with gender with level).

METHODS

The data were checked for overall validity by checking frequency distributions and cleaned (setting Don't Know/Not Applicable responses to missing).

Most work life concepts (Constructive Controversy, Conflict, Help, Psychological Safety, Inclusiveness, Fairness, Planning Process, Plans, Leadership, Work/Life, Satisfaction with Position, Satisfaction with Performance, Time for Activities, Professional Identification, Divisional Identification, School Identification) were assessed using several ordinal-scale items in the survey. One overall scale for each concept was then created as the average of each respondent's responses to the items related to that concept. An average is created for every respondent who responded to at least one item for that concept. Cronbach's alpha was used to measure this overall scale's reliability (the internal consistency of the items making up the scale). If the items measure the same concept, then the items should be highly correlated – respondent responses to each item in a scale should be similar, i.e., there should be internal consistency of the items in the scale. A value of alpha greater than 0.70 is often used as a criterion for reliability.⁴ Stata's alpha procedure was used for calculating Cronbach's alpha with the generate option being used to obtain the average of the items.

The numerical results for each scale shown below correspond to the constructed continuous scales, not to the original ordinal item scales. If a respondent answered 2, 3, 2 to the items measuring constructive controversy, the measure for constructive controversy for respondent is $(2+3+2)/3=7/3=2.33$. This report presents the items that measured each concept, histograms and means of the constructed scales by division, level, and gender, analysis of variance for tests for differences between divisions, level, and gender, and selected graphs of the means.

The means tables show the Cronbach's alpha for scales constructed from items, raw scale means by group (they are not adjusted for the other groups' effects), the p-value for the overall ANOVA, and the p-value for each group effect. P-values shown are adjusted for the other effects included in the ANOVA. The mean-based analyses were done using analysis of variance (Stata's ANOVA) with

⁴ http://en.wikipedia.org/wiki/Cronbach's_alpha

effects for Gender, Level, and Division. Within group standard deviations were examined to confirm that the assumption of constant variance was not violated. P-values shown are not adjusted for multiple testing.

The histograms were done using Stata's histogram command. The comparison of frequency distributions across divisions (to get at division differences in the shapes of the histograms) was done by cross-tabulating the quintile of the scale with division and computing a chi-square test of independence.

The graphs of means by division show the average within each division of the scale measured.

SUMMARY

While there were slight changes over time, the results of the 2011 survey were remarkably similar to the 2009 results. Divisions that were low in constructive controversy and high in conflict still have a similar position. Similar to analyses reported in the organizational literature, the analysis of identity suggests that these factors reduce identification with the division and the school. Given the importance of identification for engagement and involvement, addressing the causes of lower levels of identification may be something divisions wish to address.

Responses by level (Assistant, Associate, and Full Professor) indicate that there are differences by level and appointment type in assessment of performance evaluation and distributional fairness. Associates' feel less supported in general, and are more apprehensive about career performance than Assistant and Full Professors. These results are reflected in the new scale assessing the annual performance evaluation. Untenured tenure track faculty saw these evaluation process as worse, similar to their perceptions of distributional fairness. A related finding is that assistant professors saw distributional fairness as lower than associate or full professors did. These findings suggest that assistant professors who are tenure-track (not tenured) see the performance evaluation process and its outcomes in a significantly worse light than more senior faculty.

The FCC would like to call attention to the assessment of performance evaluation criteria. In all divisions, peer reviewed research and funding were the most highly valued activities. Faculty felt all other activities were valued less with the difference between peer reviewed research and funding and other activities varying by division. During the past two years there have been SPH initiatives to increase the quality of activities such as advising and mentoring. HPM was significantly lower than other divisions in valuing academic advising, research and masters thesis advising, and teaching doctoral courses. While improving the quality of these activities is a worthwhile goal, it may be difficult to achieve significant improvement unless the faculty see these activities as strongly valued.⁵ The results of this survey may be useful to identify situations where activities are not seen as valued. This could inform a discussion of how much each activity should be valued which could be used to redesign performance evaluation criteria to reflect divisional preferences.

For those that study teams, organizations that have faced considerable restructuring over a number of years tend to see the formation of fault lines, or an in-group / out-group phenomenon.⁶ It is this effect that can lead to responses falling into two or more distinct categories, reflecting a measure of

⁵ Kerr, Steve. 1975. "The Folly of Rewarding a While Hoping for B." *Academy of Management Journal*.

⁶ For the development of the concept of faultlines, see Lau DC, Murnighan JK. Demographic diversity and faultlines: The compositional dynamics of organizational groups. *Academy of Management Review*. 1998;23(2):325-340. While this article focuses on demographic composition, the argument generalizes to the argument that any social attribute, such as membership in a merging unit, can be the source of faultlines.

the intensity of feelings regarding collaborative work. Questions in this survey pertaining to perceptions of distributive fairness and what criteria positively affect annual evaluations have reflected this phenomenon within divisions, most notably HPM and EHS. Some responses, notably the scales pertaining to leadership, strategic planning, strategic process, and distributive fairness, had a bi-modal distribution, rendering the group means a less reliable measure.

SCALES FOR CLIMATE & DISTRIBUTIONAL FAIRNESS

Six scales were constructed, each from several items, to measure aspects of climate and fairness. In constructing these scales, the following numerical values were assigned to each item: 1=Strongly disagree, 2=Somewhat disagree, 3=Somewhat agree, 4=Strongly agree.

- 1) Constructive Controversy (In the past twelve months, how much do you agree with the following statements about collaboration and help in your division? I feel that; Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) faculty in my division collaborated constructively to resolve academic and teaching issues.
 - b) faculty in my division collaborated constructively to resolve administrative issues.
 - c) when conflict between faculty in my division arose, the faculty communicated civilly and respectfully about the conflict.
- 2) Conflict (In the past twelve months, how much do you agree with the following statements about collaboration and help in your division? I feel that; Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) personality clashes were evident among the faculty in my division.
 - b) there was conflict about research quality or priorities among the faculty in my division.
 - c) there was conflict about performance evaluation criteria among the faculty in my division.
 - d) there was conflict about academic programs among the faculty in my division.
- 3) Help (In the past twelve months, how much do you agree with the following statements about collaboration and help in your division? I feel that; Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) I can easily obtain help related to research from other faculty in my division.
 - b) I can easily obtain help related to teaching from other faculty in my division.
- 4) Psychological Safety (In the past twelve months, how much do you agree with the following statements about your bringing up issues IN A FACULTY MEETING in your division? I feel that; Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) I could bring up concerns up with my work-related duties.
 - b) I could bring up concerns with time pressures associated with grant writing and funding responsibilities.
 - c) I could bring up issues such as disrespectful communication among faculty members.
 - d) I could bring up issues such as poor teaching or advising.
 - e) It was safe to suggest new research ideas/approaches to other faculty.
- 5) Inclusiveness (In the past twelve months, how much do you agree with the following statements about the issues you brought up to your division's faculty? I feel that the issues I brought up; Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) were taken into account in my division's decision-making.
 - b) had an impact on my division's organization and work processes.
 - c) were addressed by my division adequately.
 - d) had an impact on my division's educational programs.
- 6) Distributional Fairness: In the past twelve months, how much do you agree with the following statements about fairness in your division? (Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) my compensation and support fairly reflected my research contribution to my division.

- b) my compensation and support fairly reflected my teaching contribution to my division.
 - c) my compensation and support fairly reflected my administrative contribution to my division.
 - d) my compensation and support fairly reflected my financial contribution to my division.
- 7) Evaluation of Annual Evaluation: In the past twelve months, how much do you agree with the following statements about fairness in your division? (Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
- a) the evaluation process was helpful to me in planning my activities for the next year
 - b) the evaluation process was helpful to me in planning my professional career
 - c) the evaluation process included specific observations by the evaluator on my activities in the prior year
 - d) the evaluation process was more pro forma than useful

Table 2. Cronbach's alpha, P-values, and Average Scores for Climate, Distributional Fairness, and Evaluation Process Scales

	Constr. Contr.	Conflict	Help	Psych. Safety	Inclusive	Distrib. Fairness	Evaluation Process
Alpha	0.92	0.78	0.79	0.90	0.95	0.89	0.88
Overall p-value	0.00	0.01	0.13	0.35	0.59	0.04	0.04
SPH Mean	3.29	2.41	3.35	3.00	2.92	2.87	2.52
SPH Standard Dev	0.78	0.82	0.71	0.74	0.79	0.84	0.75
Biostatistics	3.56	2.20	3.14	3.05	3.27	3.13	2.99
Environmental Health Sciences	3.49	2.08	3.67	3.27	2.83	2.47	2.16
EPI & Community Health	3.46	2.18	3.39	2.99	2.86	2.97	2.46
Health Policy & Management	2.80	3.01	3.24	2.87	2.82	2.78	2.53
p-value	0.00	0.00	0.34	0.78	0.64	0.24	0.36
Assistant	3.23	2.52	3.30	2.91	2.96	2.75	2.71
Associate	3.14	2.39	3.30	2.76	2.71	2.80	2.65
Full	3.55	2.22	3.52	3.28	3.02	2.98	2.29
p-value	0.27	0.65	0.03	0.07	0.62	0.03	0.12
Tenure-track, tenured	3.36	2.25	3.41	3.08	2.90	2.85	2.35
Tenure-track, not tenured	3.19	2.62	3.31	2.87	2.97	2.63	2.71
Contract	3.26	2.44	3.35	2.97	3.03	3.30	3.10
p-value	0.47	0.92	0.04	0.91	0.88	0.02	0.02
Female	3.19	2.39	3.26	2.92	2.71	2.80	2.51
Male	3.40	2.40	3.44	3.09	3.06	2.95	2.54
p-value	0.72	0.51	0.55	0.69	0.16	0.49	0.69

1-Strongly disagree, 4-Strongly agree; Statistically significant relationships are highlighted.

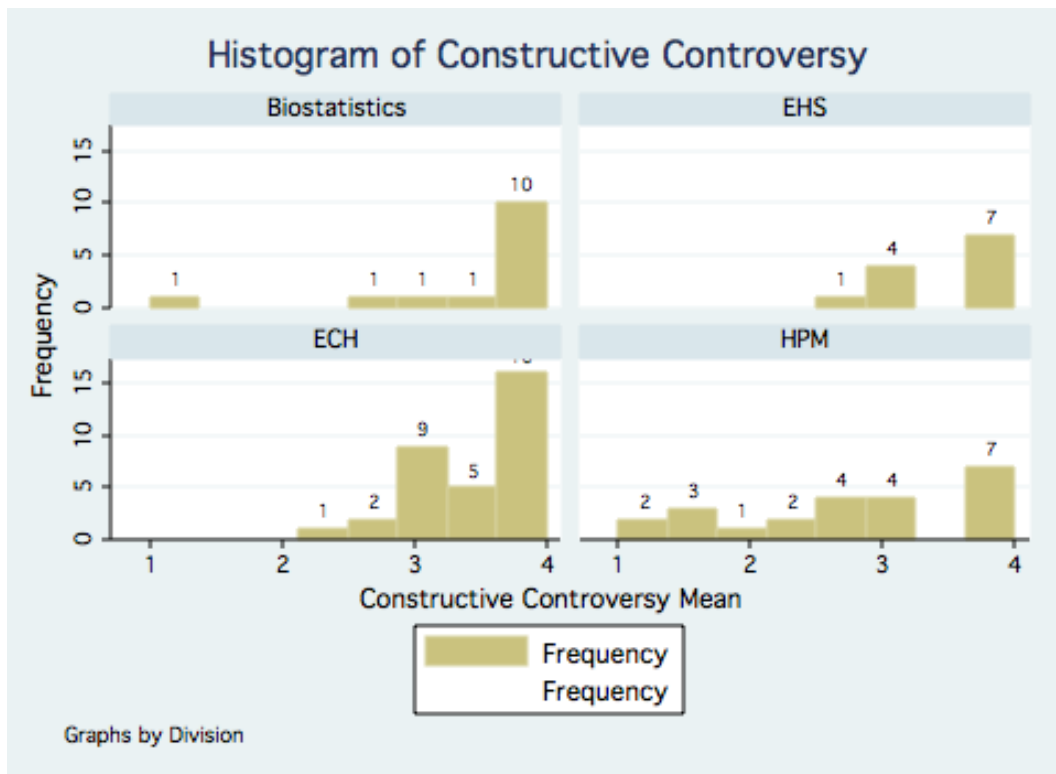


Figure 1: Pearson $\chi^2(9) = 23.81$ Pr = 0.005

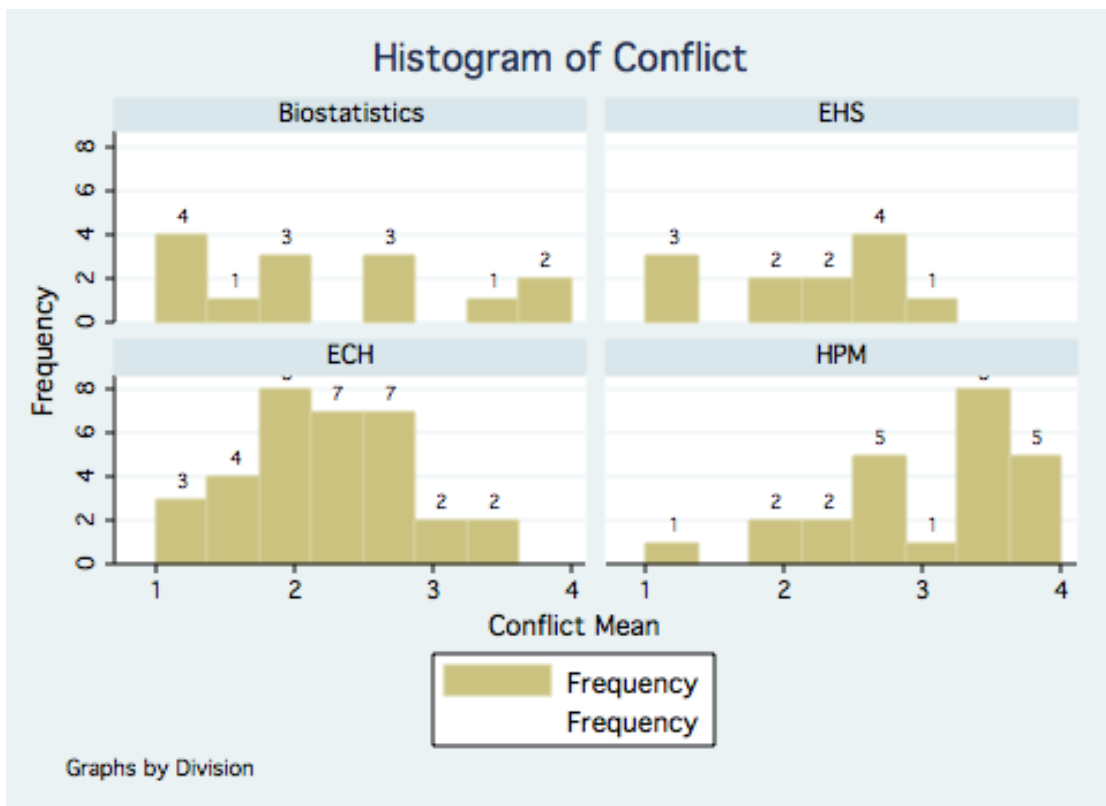


Figure 2: Pearson $\chi^2(12) = 28.57$ Pr = 0.005

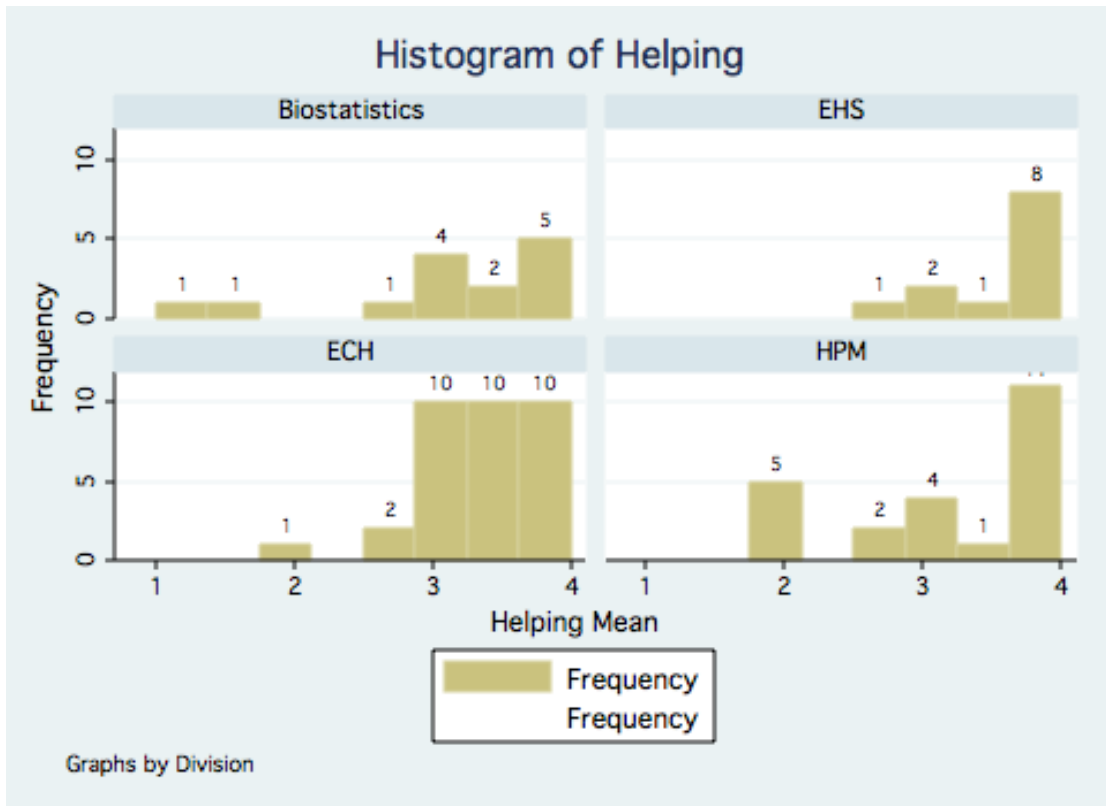


Figure 3: Pearson $\chi^2(3) = 2.20$ Pr = 0.531

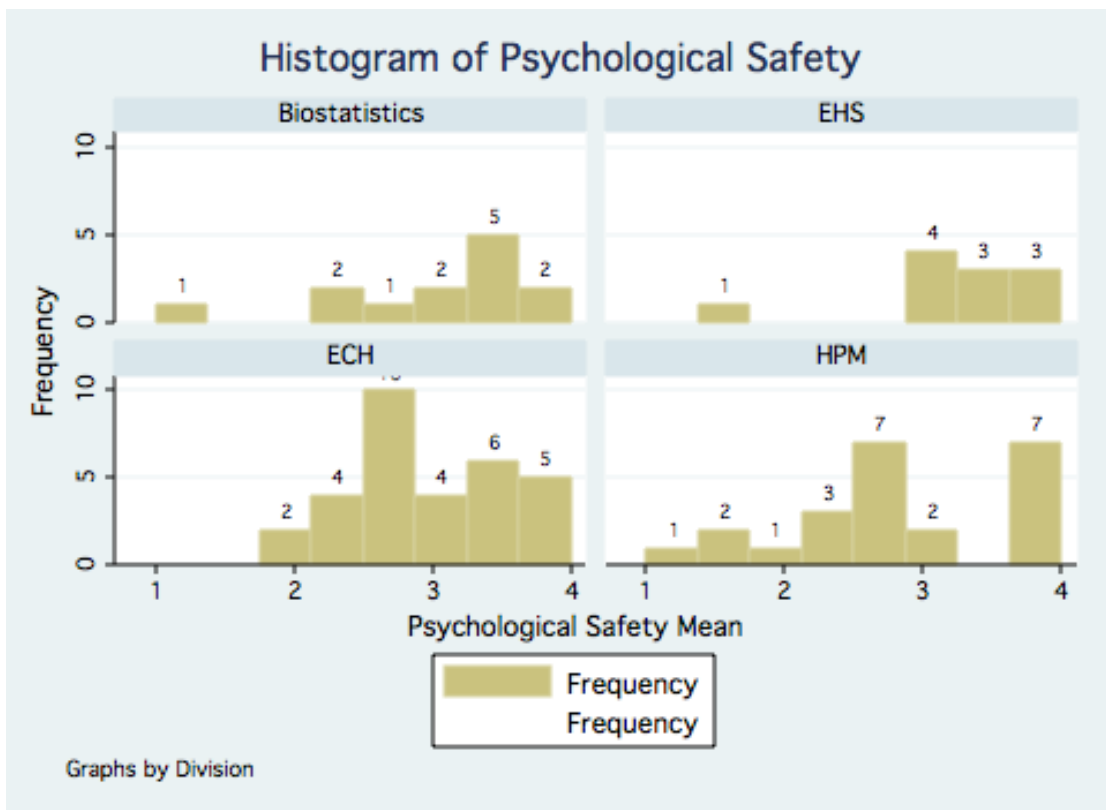


Figure 4: Pearson $\chi^2(12) = 22.05$ Pr = 0.037

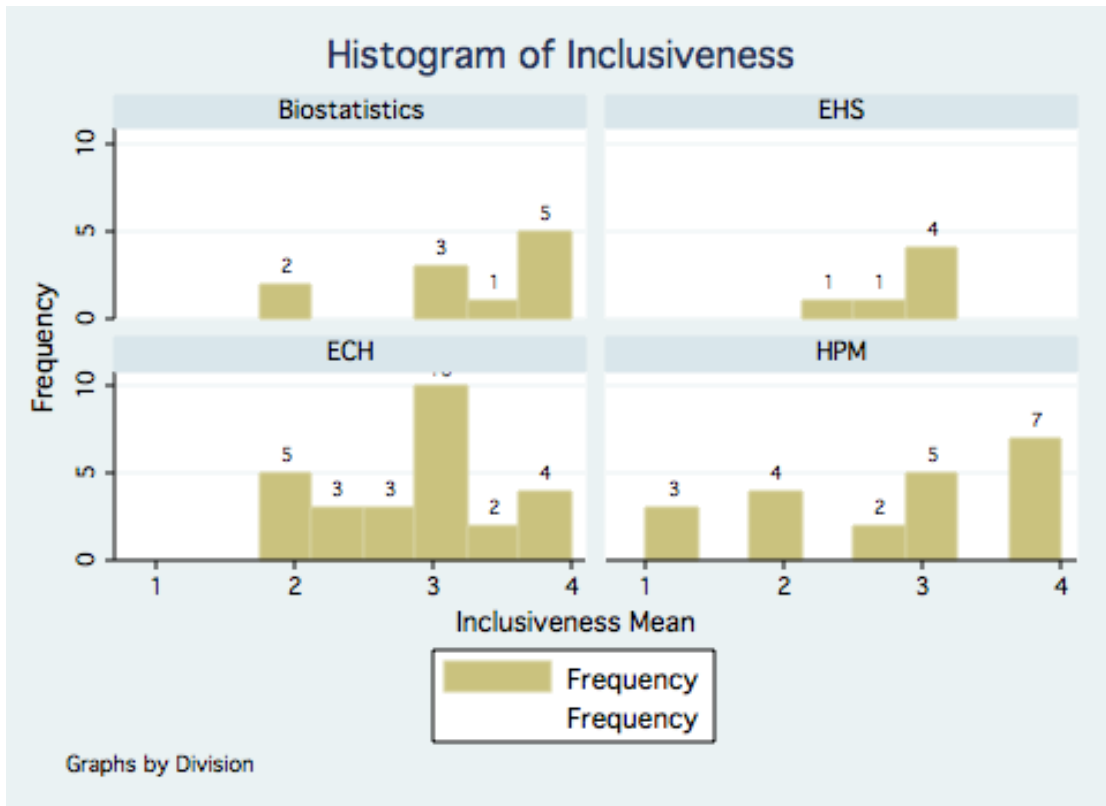


Figure 5: Pearson $\chi^2(9) = 11.74$ Pr = 0.228

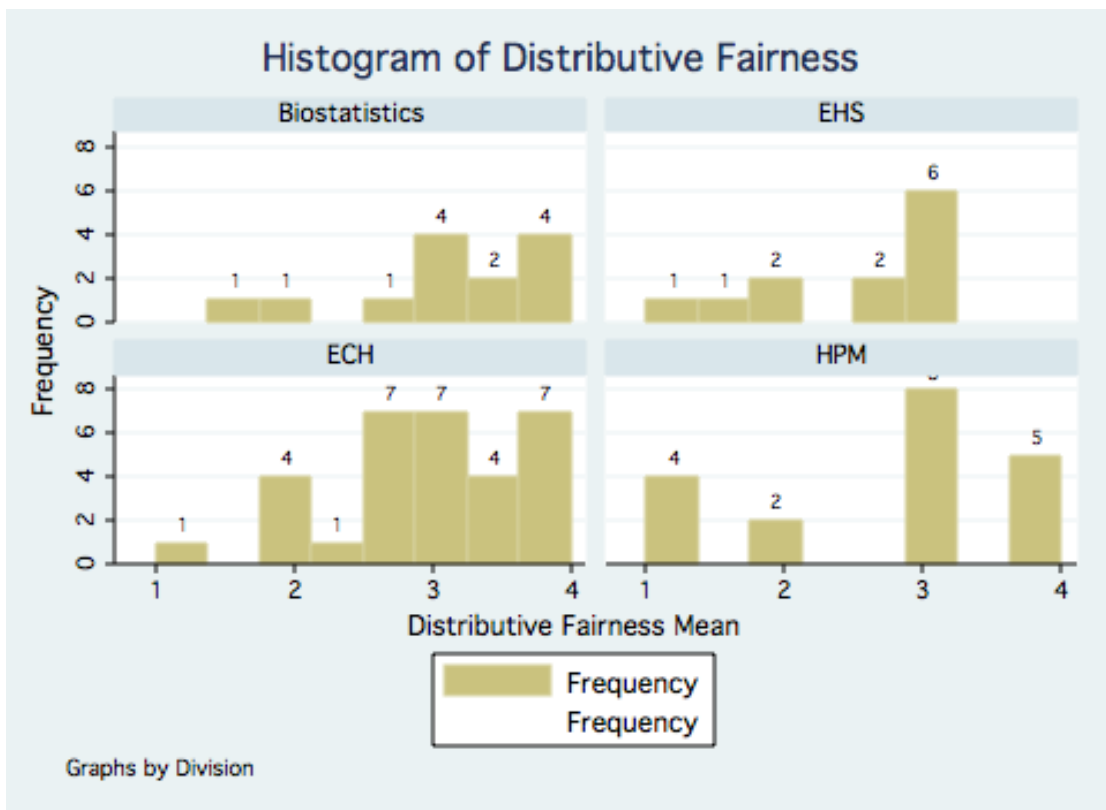


Figure 6: Pearson $\chi^2(6) = 6.12$ Pr = 0.410

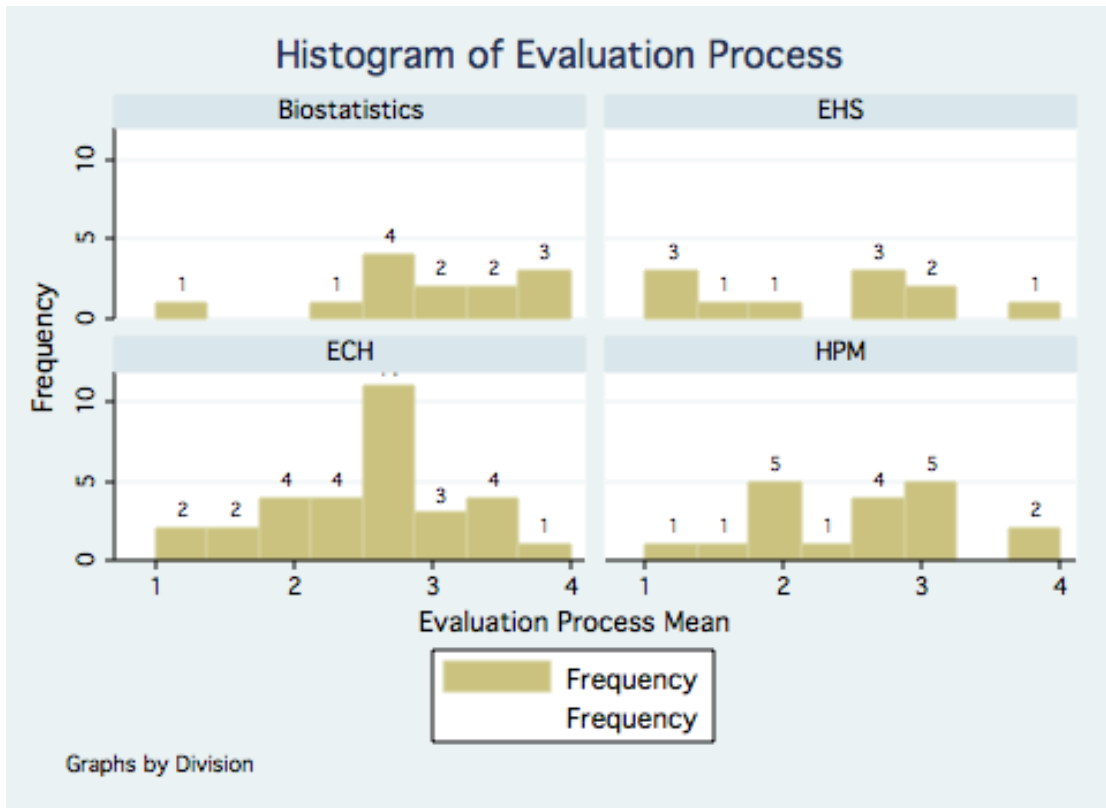


Figure 7: Pearson $\chi^2(12) = 16.10$ Pr = 0.187

IDENTITY

Identity is a psychological attachment and openness to a group, such as a profession, work group, or organization.⁷ Identity increases cooperative and helping behavior within the group identified with.⁸ Identity was measured with the items:

- 1) Professional Identity: Thinking about the profession you are most closely associated with (e.g., epidemiologist, economist, environmental health scientist, health services researcher), how much do you agree with the following statements (Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) The profession's successes are my successes
 - b) When someone criticizes the profession, it feels like a personal insult
 - c) When someone praises the profession, it feels like a personal compliment
 - d) I am very interested in what others think of this profession
- 2) Divisional Identity: Thinking about the division you are most closely associated with, how much do you agree with the following statements (Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) The division's successes are my successes
 - b) When someone criticizes the division, it feels like a personal insult
 - c) When someone praises the division, it feels like a personal compliment
 - d) I am very interested in what others think of this division

⁷ Riketta, Michael, and Rolf Van Dick. 2005. "Foci of Attachment in Organizations: A Meta-Analytic Comparison of the Strength and Correlates of Workgroup Versus Organizational Identification and Commitment." *Journal of Vocational Behavior* 67:490-510.

⁸ Tyler, Tom R., and Steven L. Blader. 2003. "The Group Engagement Model: Procedural Justice, Social Identity, and Cooperative Behavior." *Personality and Social Psychology Review* 7:349-361.

- 3) School Identity: Thinking about the School of Public Health, how much do you agree with the following statements (Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
- a) The School of Public Health's successes are my successes
 - b) When someone criticizes the School of Public Health, it feels like a personal insult
 - c) When someone praises the School of Public Health, it feels like a personal compliment
 - d) I am very interested in what others think of this School of Public Health

Table 3 shows the average values for profession, division, and school identity. The test for divisional differences in identity is significant with faculty in Health Policy & Management being less likely identify with their division. Associated professors are less likely identify with their division. Figure 8 shows the Division Identity histogram.

Table 3. Cronbach's alpha, P-values, and Average Scores for Identity Scales			
	Identity		
	Profession	Division	School
Alpha	0.85	0.84	0.87
Overall p-value	0.95	0.05	0.59
SPH Mean	2.62	2.96	2.82
SPH Standard Dev	0.75	0.67	0.70
Biostatistics	2.79	3.15	2.85
Environmental Health Sciences	2.73	3.04	2.96
EPI & Community Health	2.60	3.11	2.93
Health Policy & Management	2.48	2.61	2.57
p-value	0.72	0.05	0.39
Assistant	2.56	2.99	2.79
Associate	2.59	2.73	2.75
Full	2.68	3.11	2.88
p-value	0.61	0.05	0.40
Tenure-track, tenured	2.66	2.97	2.84
Tenure-track, not tenured	2.56	3.04	2.79
Contract	2.65	2.95	2.88
p-value	0.89	0.37	0.78
Female	2.66	2.93	2.93
Male	2.60	3.02	2.74
p-value	0.54	0.71	0.26
Statistically significant relationships are highlighted.			

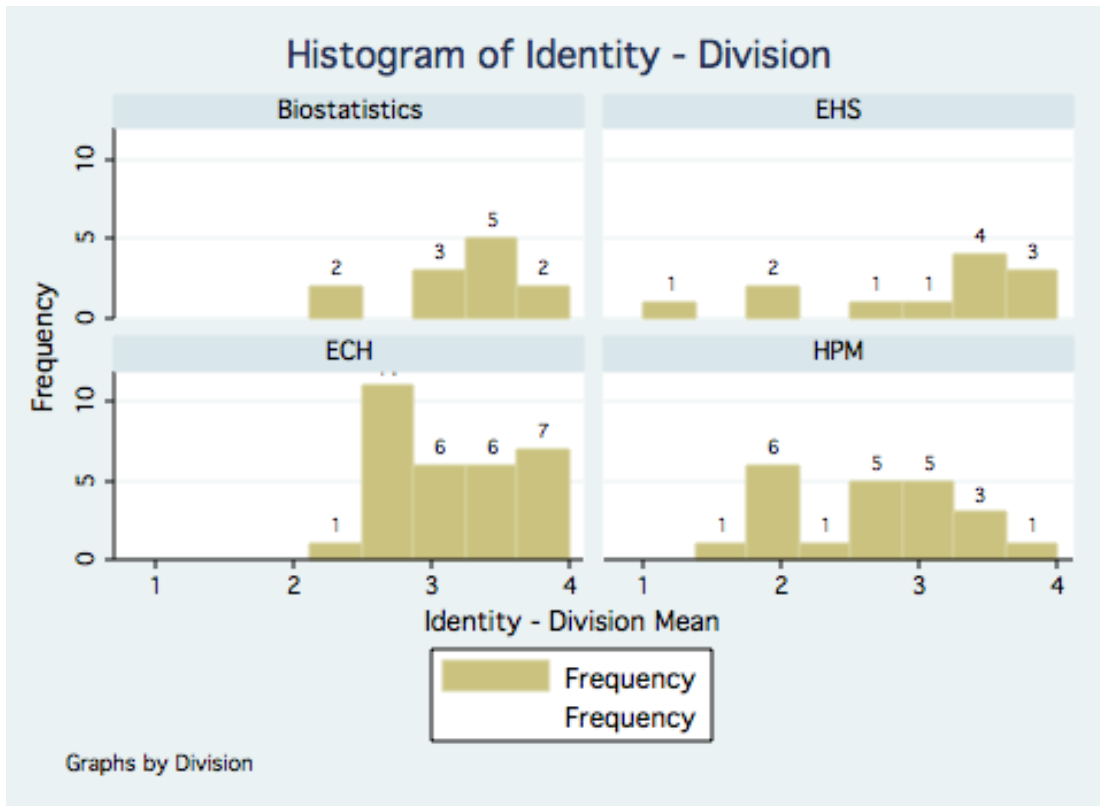


Figure 8: Histogram of Division Identity

Table 4 shows an analysis of identity as a function of division, level, appointment, and climate. For each identification group (profession, division, school), model (1) estimates the effect of division (Biostatistics is the comparison), level (assistant is the comparison), type of appointment (tenure track, tenured is the comparison). Model (2) adds climate as a mediating effect. For School model (3) includes Division identity. Climate is measured by averaging constructive controversy, conflict (reverse coded), helping, psychological safety, distributional fairness, evaluation of the evaluation process, and evaluation of leadership. The Cronbach's alpha for the combined measures was .84.

The more positive faculty feel the climate is the more likely they are to identify with their profession, division, and the school. Model (1) for the Division shows that faculty in HPM were less likely to identify with their division. The negative effect for HPM was attenuated with the inclusion of the overall climate measure, which was positive and significant. This suggests that overall climate mediates the division effect (division causes climate which causes Division identification). Model (3) for the School suggests that Division identification mediates the climate effect on School identification (e.g., something associated with Division causes climate which causes Division identification which causes School identification)/

The models for School Identity suggest that higher overall climate is associated with higher School Identity and that this effect occurs through its effect on Division Identity. This implies that a lower perception of a division's overall climate the lower is Division Identity which reduces School Identity.

Table 4. Correlates of Identity - Main and Mediating Effects (b/t)							
	Profession		Division		School		
	(1)	(2)	(1)	(2)	(1)	(2)	(3)
EHS	-0.10 (-0.28)	0.01 (0.02)	-0.06 (-0.21)	0.07 (0.28)	0.12 (0.38)	0.24 (0.80)	0.19 (0.77)
ECH	-0.26 (-0.94)	-0.16 (-0.59)	-0.06 (-0.28)	0.06 (0.29)	-0.02 (-0.09)	0.09 (0.39)	0.05 (0.26)
HPM	-0.29 (-0.96)	-0.09 (-0.28)	-0.54* (-2.18)	-0.28 (-1.17)	-0.30 (-1.11)	-0.07 (-0.25)	0.11 (0.50)
Associate	0.25 (0.50)	0.03 (0.07)	0.16 (0.40)	-0.11 (-0.29)	0.23 (0.52)	-0.02 (-0.04)	0.06 (0.16)
Full	0.46 (0.84)	0.11 (0.20)	0.64 (1.45)	0.21 (0.49)	0.50 (1.02)	0.11 (0.22)	-0.03 (-0.07)
Tenure track - Not tenured	0.26 (0.49)	0.02 (0.03)	0.55 (1.25)	0.24 (0.58)	0.34 (0.71)	0.06 (0.13)	-0.09 (-0.24)
Contract	0.22 (0.43)	-0.04 (-0.07)	0.25 (0.60)	-0.08 (-0.19)	0.26 (0.56)	-0.04 (-0.08)	0.01 (0.03)
Male	-0.12 (-0.61)	-0.13 (-0.68)	0.06 (0.38)	0.05 (0.33)	-0.20 (-1.13)	-0.21 (-1.25)	-0.24 (-1.74)
Overall Climate		0.37* (2.13)		0.46** (3.47)		0.42** (2.77)	0.12 (0.88)
Identity - Division							0.65** (5.53)
Constant	2.57** (4.31)	1.57* (2.11)	2.68** (5.55)	1.43* (2.50)	2.65** (4.96)	1.51* (2.32)	0.58 (1.02)
Observations	74	74	74	74	74	74	74
F	0.33	0.81	2.06	3.48	0.82	1.66	5.24
R-squared	0.04	0.1	0.2	0.33	0.09	0.19	0.45

* p<0.05, ** p<0.01; ; Statistically significant relationships are highlighted.

Figure 8 graphs climate, distributional fairness, evaluation process fairness, and identity by division.

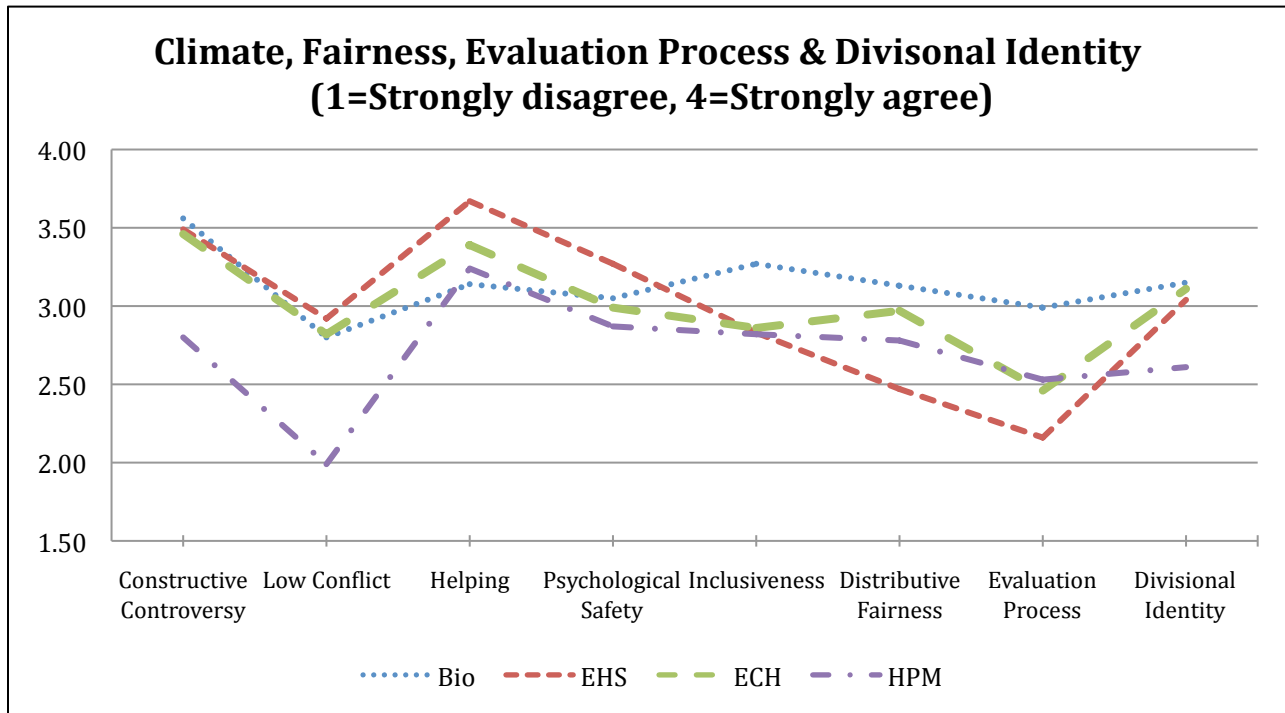


Figure 9: Average scores for each climate and fairness scale by Division. Conflict has been reverse coded to be Low Conflict for graphing.

SCALES FOR PLANNING AND LEADERSHIP

Three scales were constructed, each from several items, to measure aspects of planning and leadership. In constructing these scales, the following numerical values were assigned to each item: 1= Terrible, 2=Very Poor, 3=Poor, 4=Good, 5=Very Good, 6=Excellent.

- 1) Division's Planning Process: Thinking about the last time your division conducted strategic planning, how good do you feel your division's STRATEGIC PLANNING PROCESSES were for (Scale: Terrible, Very Poor, Poor, Good, Very Good, Excellent)
 - a) research
 - b) education
 - c) community relationships
 - d) faculty professional development
- 2) Division's Plans: How good do you feel your division's STRATEGIC PLANS are for (Scale: Terrible, Very Poor, Poor, Good, Very Good, Excellent)
 - a) research
 - b) education
 - c) community relationships
 - d) faculty professional development
- 3) Leadership (In the past twelve months, how good of a job do you feel your division's leadership has done leading your division's activities in; Scale: Terrible, Very Poor, Poor, Good, Very Good, Excellent)
 - a) education
 - b) research
 - c) overall

Table 5. Cronbach's alpha, P-values, and Average Scores for Planning & Leadership Scales			
	Division's Planning Process	Division's Plans	Leadership
Alpha	0.94	0.88	0.92
Overall p-value	0.07	0.08	0.54
SPH Mean	3.80	3.71	4.34
SPH Standard Dev	1.20	0.98	1.06
Biostatistics	4.46	4.37	4.79
Envir. Health Sciences	3.88	3.18	4.19
EPI & Community Health	3.95	3.82	4.35
Health Policy & Mgmt.	3.27	3.45	4.13
p-value	0.35	0.25	0.59
Assistant	4.26	4.13	4.33
Associate	3.57	3.44	4.21
Full	3.70	3.56	4.41
p-value	0.75	0.44	0.19
Tenure-track, tenured	3.56	3.45	4.28
Tenure-track, not tenured	3.96	3.95	4.27
Contract	4.93	4.53	4.79
p-value	0.05	0.11	0.19
Female	3.62	3.64	4.31
Male	3.91	3.76	4.37
p-value	0.15	0.57	0.99
1=Terrible, 6=Excellent; Statistically significant relationships are highlighted.			

4)

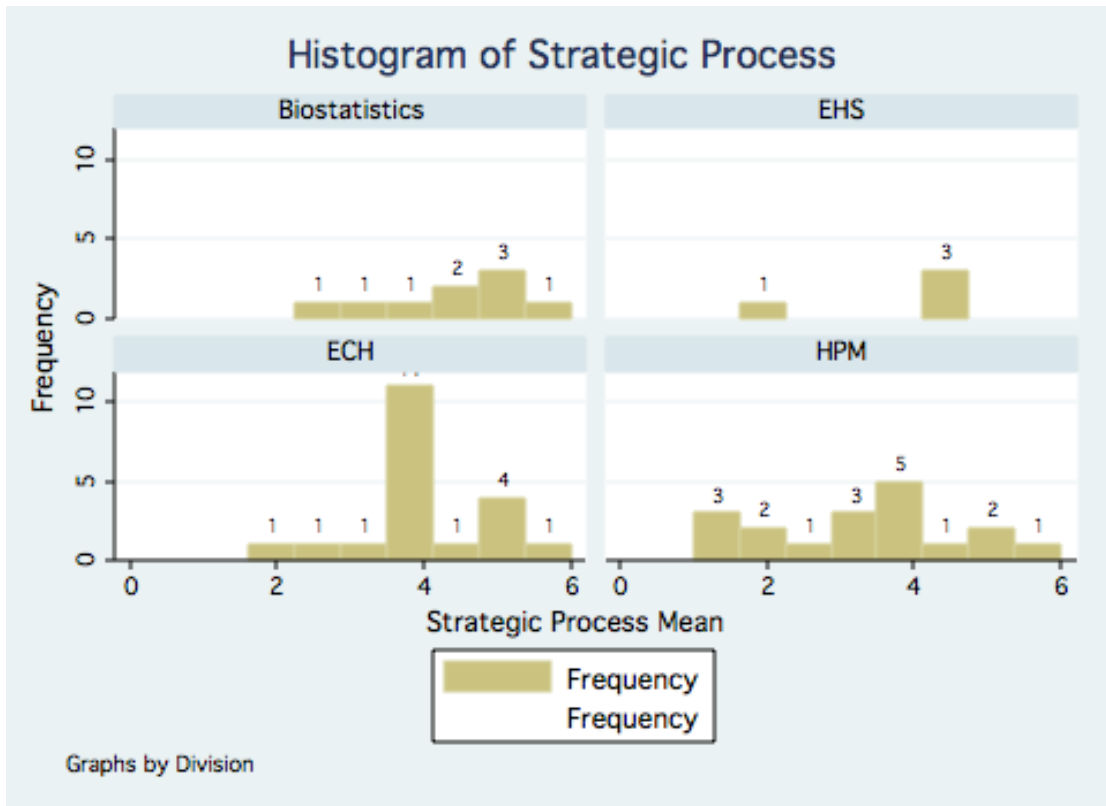


Figure 10: Pearson $\chi^2(12) = 16.52$ Pr = 0.168

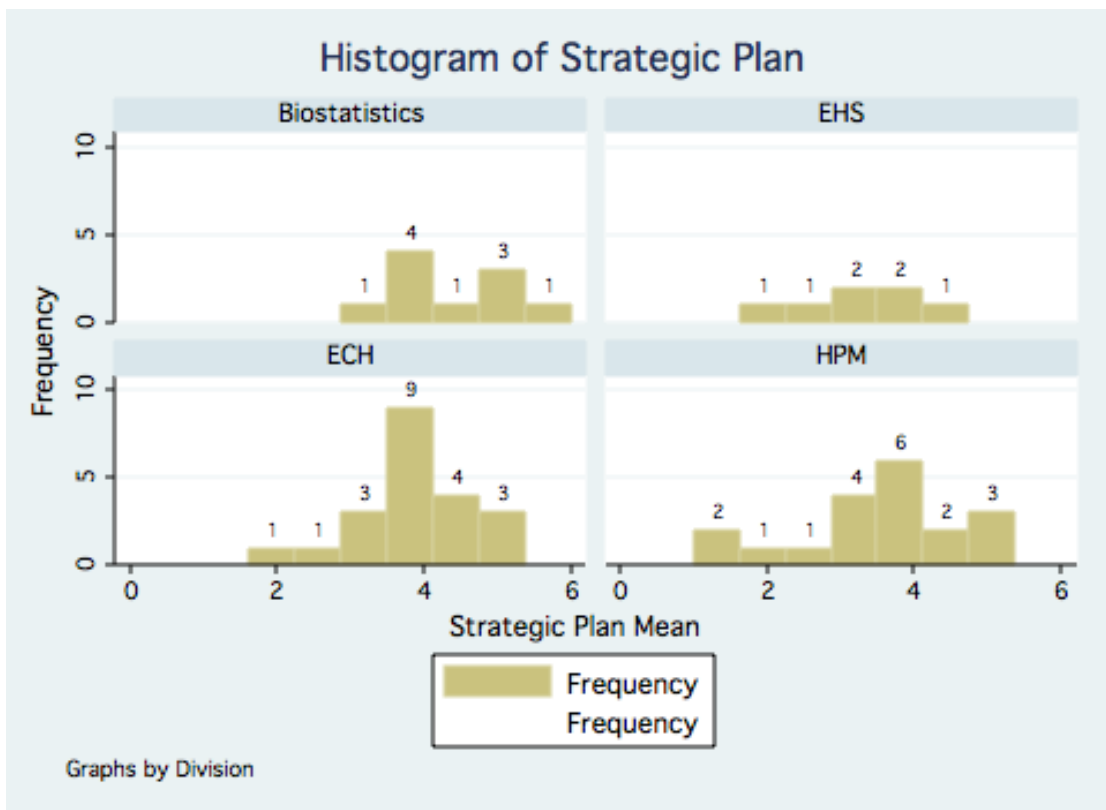


Figure 11: Pearson $\chi^2(12) = 13.79$ Pr = 0.314

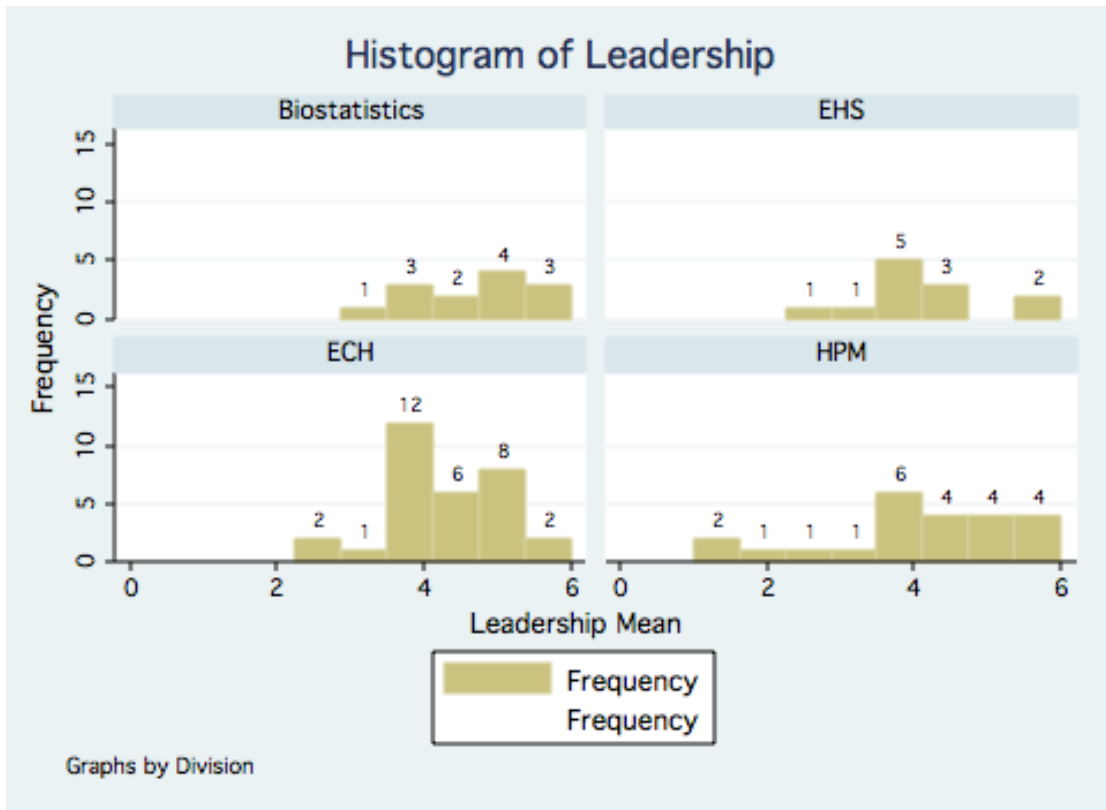


Figure 12: Pearson $\chi^2(12) = 11.31$ Pr = 0.503

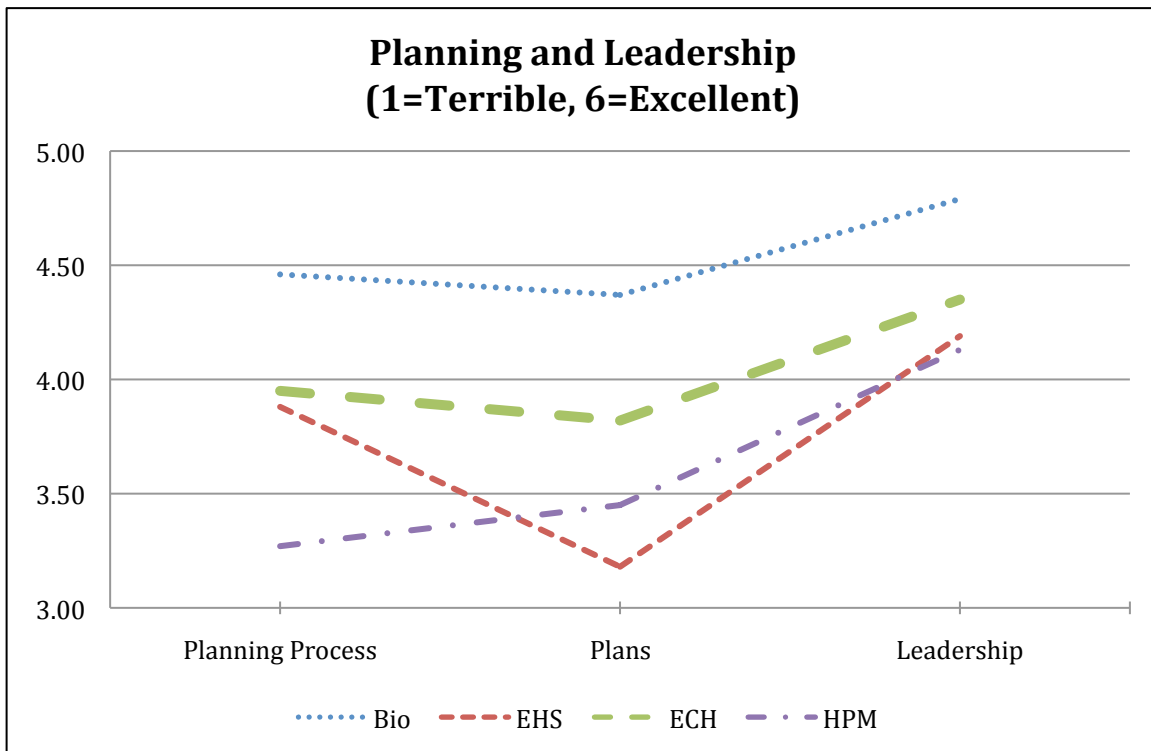


Figure 13. Average scores for each planning and leadership scale by Division.

SCALES FOR SATISFACTION

Three scales were constructed, each from several items, to measure aspects of worklife and satisfaction. In constructing these scales, the following numerical values were assigned to each item, as appropriate for the item: 1=Strongly disagree, 2=Somewhat disagree, 3=Somewhat agree, 4=Strongly agree; 1=Very dissatisfied, 2=Somewhat dissatisfied, 3=Somewhat satisfied, 4=Very satisfied.

- 1) Work life (In the past twelve months, how much do you agree with the following statements?; Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) The amount of work required for me as a faculty member interfered with my home and/or family life.
 - b) I made changes to my family activities/plans due to my work-related duties.
 - c) I made changes to my work-related activities due to my family/spouse/partner demands.
 - d) I had to postpone my work-related activities due to demands on my time at home.
- 2) Satisfaction (Overall, how satisfied are you with; Scale: Very dissatisfied, Somewhat dissatisfied, Somewhat satisfied, Very satisfied)
- 3) Satisfaction with position
 - a) Your position in your division
 - b) Your position in the School of Public Health
- 4) Satisfaction with performance
 - a) Your performance in your division
 - b) Your performance in your profession
 - c) Your performance in the School of Public Health

Table 6. Cronbach's alpha, P-values, and Average Scores for Worklife and Satisfaction Scales			
	Worklife	Satisfaction with Position	Satisfaction with Performance
Alpha	0.78	0.85	0.85
Overall p-value	0.10	0.38	0.51
SPH Mean	2.57	3.06	3.14
SPH Standard Dev	0.71	0.85	0.72
Biostatistics	2.48	3.35	3.28
Environmental Health Sciences	2.69	2.92	3.22
EPI & Community Health	2.67	3.09	3.08
Health Policy & Management	2.41	2.91	3.08
p-value	0.23	0.48	0.92
Assistant	2.64	2.96	3.11
Associate	2.69	2.81	2.86
Full	2.45	3.27	3.32
p-value	0.32	0.07	0.06
Tenure-track, tenured	2.57	3.06	3.10
Tenure-track, not tenured	2.88	2.91	3.10
Contract	2.20	3.27	3.27
p-value	0.03	0.45	0.36
Female	2.50	3.01	3.08
Male	2.65	3.07	3.17
p-value	0.10	0.96	0.99

1=Very dissatisfied, 4=Very satisfied; Statistically significant relationships are highlighted.

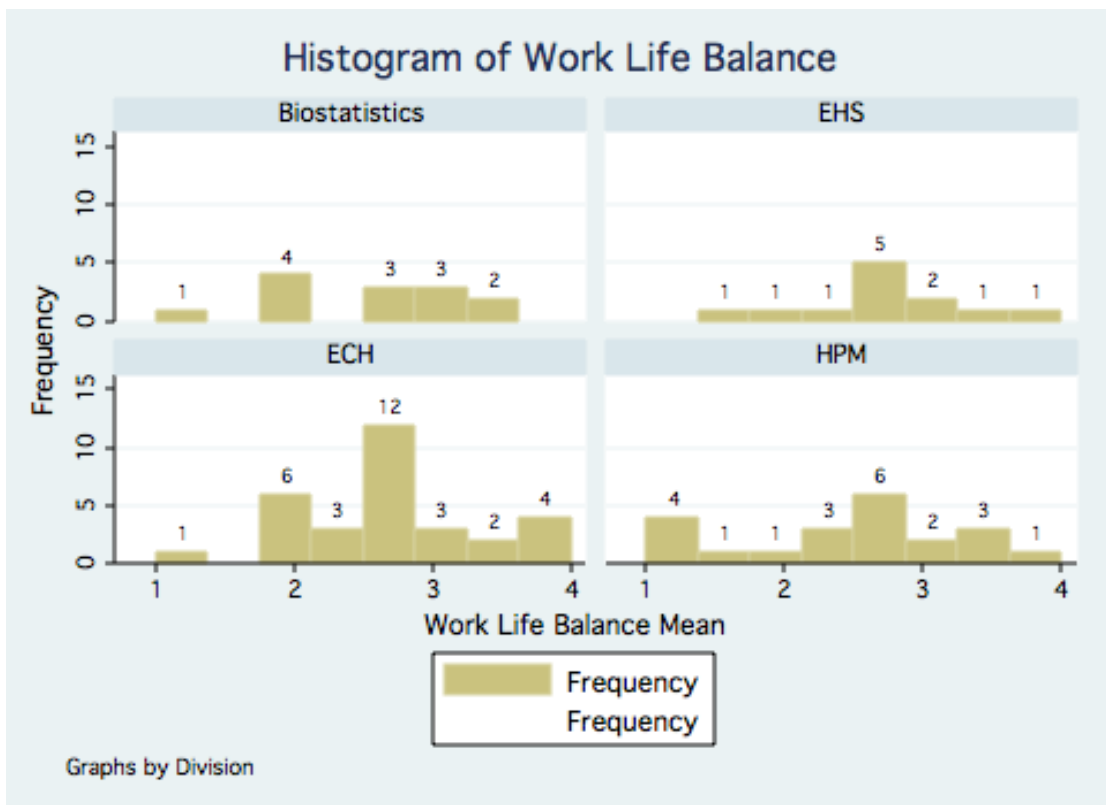


Figure 14: Pearson $\chi^2(12) = 5.35$ Pr = 0.945

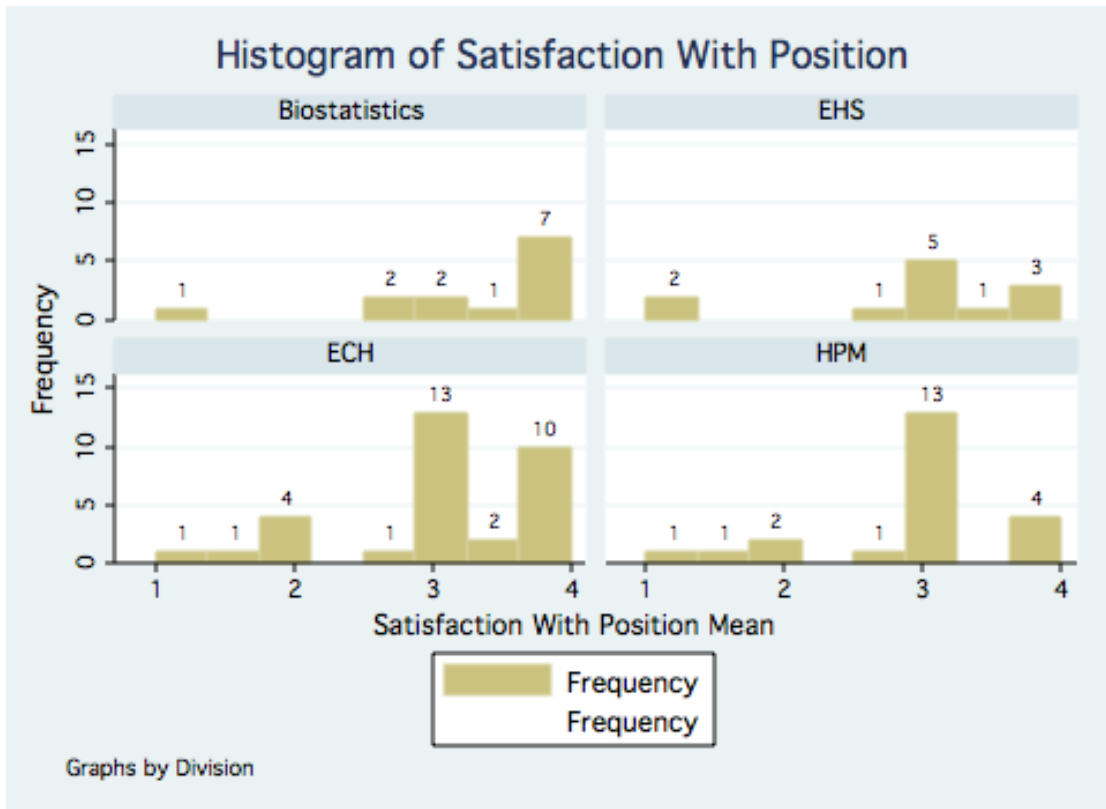


Figure 15: Pearson $\chi^2(6) = 8.20$ Pr = 0.224

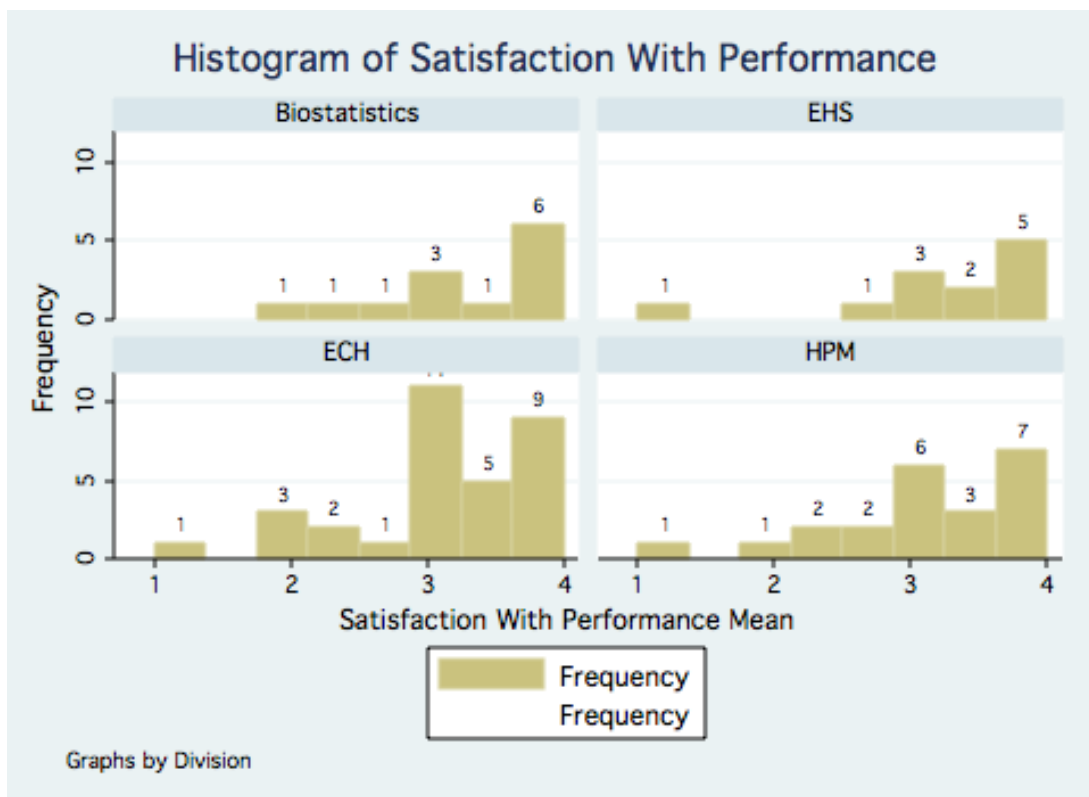


Figure 16: Pearson $\chi^2(12) = 3.46$ Pr = 0.991

SCALES FOR TIME FOR ACTIVITIES

Factor analysis showed that the items for time for activities grouped into two scales – time for students and time for research. In constructing these scales, the following numerical values were assigned to each item: 1=Strongly disagree, 2=Somewhat disagree, 3=Somewhat agree, 4=Strongly agree.

- 1) Time for Activities (In the past twelve months, how much do you agree with the following statements about the amount of time you had for research and teaching activities in your division? I feel that I had adequate time; Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) Time for students
 - b) to advise students.
 - c) to prepare for classes.
 - d) to assess student work and provide feedback.
 - e) Time for research
 - f) to write grants
 - g) to work on funded research
 - h) to work on unfunded research
 - i) to develop new research ideas
 - j) to develop interdisciplinary work
 - k) to do cutting edge research

	Time for Students	Time for Research
Alpha	0.92	0.89
Overall p-value	0.58	0.46
SPH Mean	2.75	2.60
SPH Standard Dev	0.82	0.75
Biostatistics	2.90	2.80
Environmental Health Sciences	2.83	2.68
Epidemiology & Community Health	2.74	2.44
Health Policy & Management	2.62	2.65
p-value	0.86	0.63
Assistant	2.86	2.65
Associate	2.45	2.38
Full	2.90	2.71
p-value	0.18	0.17
Tenure-track, tenured	2.67	2.50
Tenure-track, not tenured	2.78	2.59
Contract	2.95	2.87
p-value	0.59	0.19
Female	2.66	2.53
Male	2.84	2.66
p-value	0.57	0.99
1-Strongly disagree, 4=Strongly agree.		

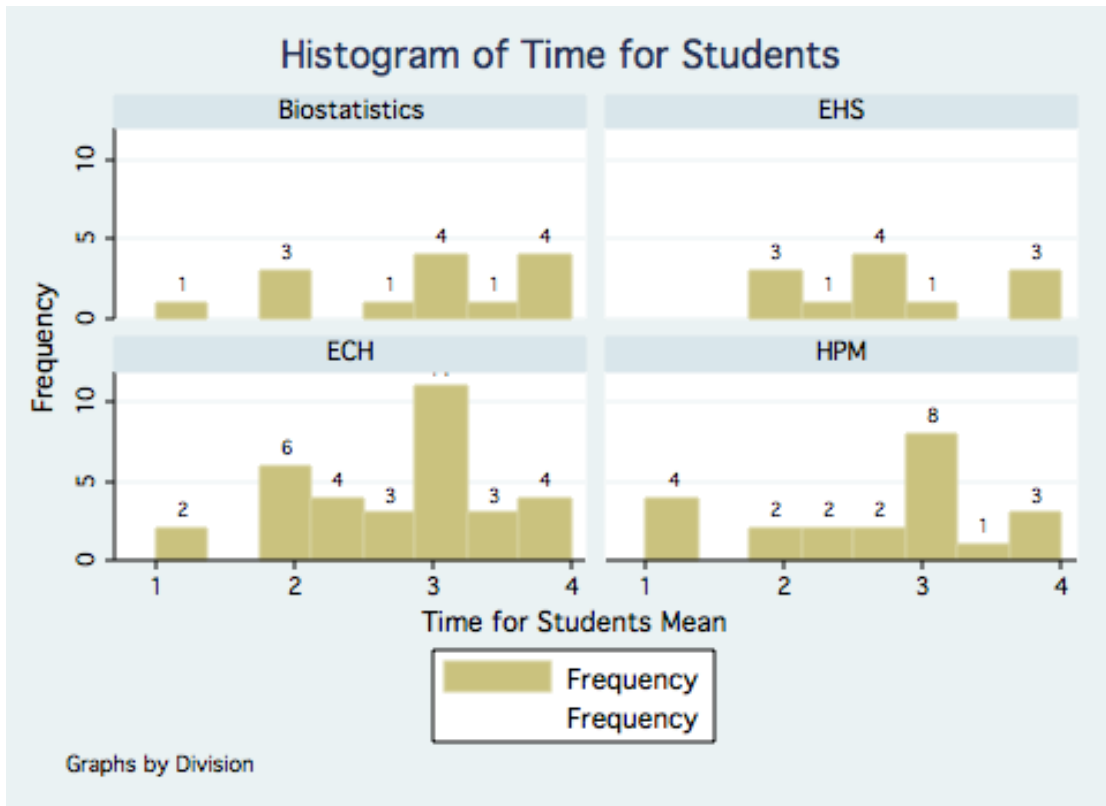


Figure 17: Pearson $\chi^2(12) = 9.67$ Pr = 0.645

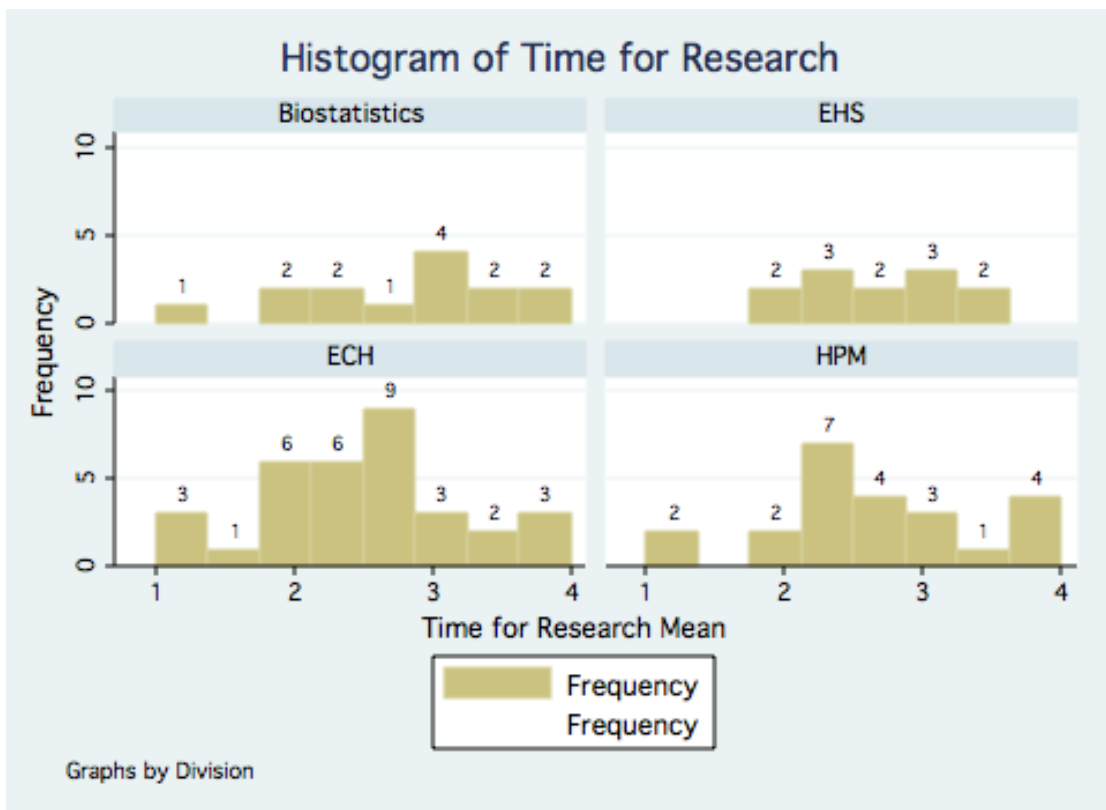


Figure 18: Pearson $\chi^2(12) = 7.67$ Pr = 0.810

SUPPORT ITEMS

Specific areas of support given to faculty were of interest, hence these items were not grouped nor combined into a single scale. In computing means, the following numerical values were assigned to each item: 1=Strongly disagree, 2=Somewhat disagree, 3=Somewhat agree, 4=Strongly agree.

- 1) Adequate Support: (In the past twelve months, how much do you agree with the following statements about your division's support for you? I feel that my division adequately supports me in; Scale: Strongly disagree, Somewhat disagree, Somewhat agree, Strongly agree)
 - a) obtaining supplies for course development, such as purchasing books or teaching materials
 - b) availability of and access to computers
 - c) availability of and access to statistical or other specialized software
 - d) availability of and access to word processing or presentation software
 - e) travel support for professional meetings
 - f) office staff support
 - g) grant management (e.g., account administration)
 - h) providing protected time for new course development
 - i) technical support for on-line course development
 - j) providing teaching assistants to support my teaching

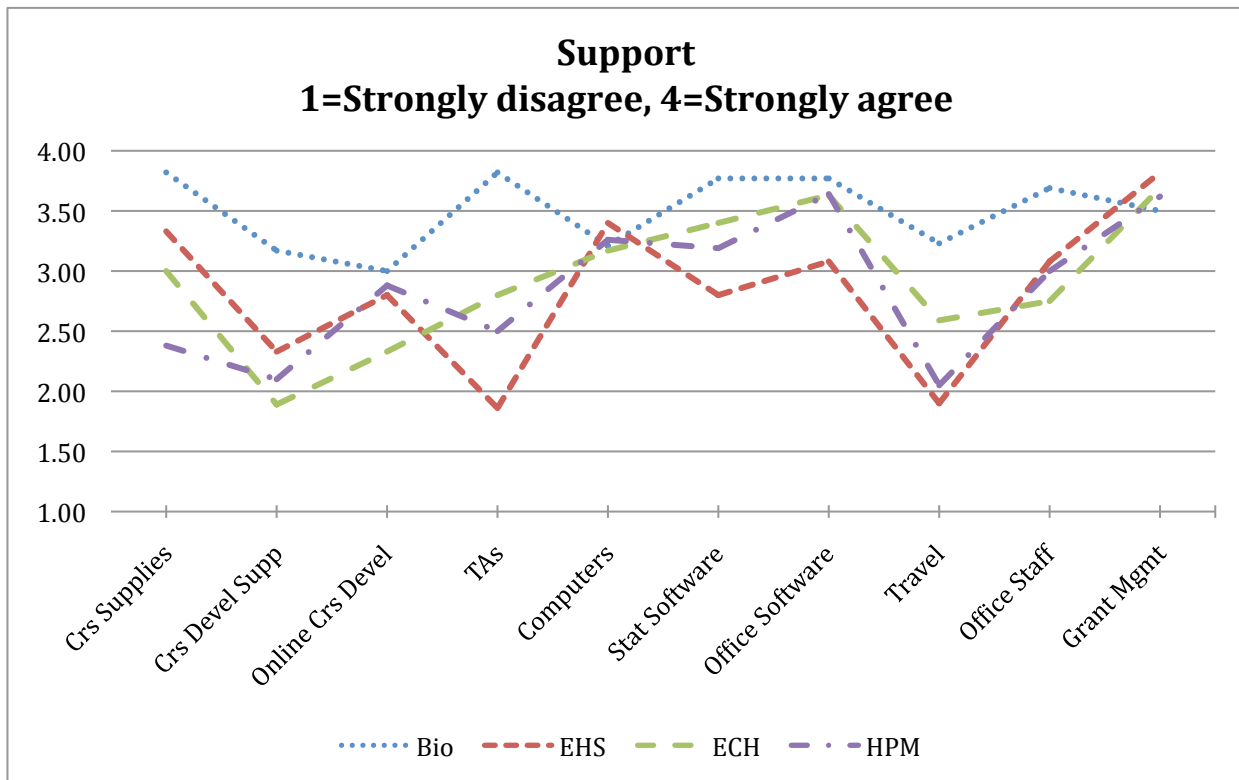


Figure 19. Average scores for each support item by Division.

Table 8. Averages and p-values for Support by Division, by Rank, and by Gender										
	Supplies for course develop	New course develop	Tech support for online course develop	T.A.s to support teaching	Comp-uters	Statistical or other software	Word Process / Present-ation software	Travel	Office staff	Grant Manage-ment
Overall p-value	0.02	0.07	0.18	0.03	0.22	0.04	0.32	0.02	0.15	0.06
SPH Mean	2.97	2.19	2.71	2.80	3.23	3.32	3.57	2.46	3.03	3.66
SPH Standard Dev	1.06	1.04	0.96	1.16	1.01	0.85	0.62	1.07	1.00	0.62
Bio	3.82	3.17	3.00	3.82	3.21	3.77	3.77	3.23	3.69	3.50
EHS	3.33	2.33	2.80	1.86	3.40	2.80	3.08	1.90	3.08	3.82
ECH	3.00	1.89	2.33	2.80	3.17	3.40	3.63	2.59	2.75	3.69
HPM	2.38	2.10	2.88	2.50	3.26	3.19	3.64	2.05	3.00	3.62
p-value	0.01	0.36	0.56	0.02	0.92	0.25	0.11	0.03	0.12	0.36
Asst	3.15	2.41	2.43	3.25	3.46	3.52	3.65	3.00	3.00	3.59
Assoc	2.71	2.13	2.44	2.85	2.62	3.09	3.50	2.23	2.87	3.52
Full	3.04	1.94	3.08	2.33	3.43	3.30	3.53	2.19	3.13	3.83
p-value	0.30	0.37	0.11	0.61	0.01	0.14	0.50	0.73	0.19	0.18
Tenure- track, tenured	2.96	2.31	2.27	3.12	3.46	3.36	3.56	2.61	3.04	3.68
Tenure- track, not tenured	3.04	2.06	2.81	2.62	2.89	3.19	3.46	2.25	3.10	3.68
Contract	2.90	2.20	3.00	2.72	3.37	3.43	3.71	2.57	2.92	3.61
p-value	0.30	0.07	0.03	0.81	0.91	0.03	0.37	0.87	0.29	0.04
Female	2.80	2.04	2.50	2.79	3.16	3.30	3.58	2.47	2.86	3.63
Male	3.14	2.29	2.90	2.83	3.28	3.36	3.60	2.48	3.19	3.74
p-value	0.13	0.44	0.92	0.81	0.81	0.67	0.87	0.80	0.54	0.80

Statistically significant relationships are highlighted.

ITEMS FOR PERFORMANCE EVALUATION

Specific areas of performance evaluation were of interest, hence these items were not grouped nor combined into a single scale. In computing means, the following numerical values were assigned to each item: 1=Almost none, 2=A little, 3=Some, 4=A lot.

- 1) Annual Evaluation (In the past twelve months, how much do you feel the following criteria POSITIVELY affected your annual performance evaluation?; Scale: Almost none, A little, Some, A lot)
 - a) Professional service
 - b) Community Service
 - c) Community based participatory research
 - d) Funding level (e.g., from grants or contracts)
 - e) Publishing peer reviewed research
 - f) Publishing non-peer reviewed research
 - g) Teaching masters level courses
 - h) Teaching doctoral level courses
 - i) Academic advising
 - j) Research and thesis advising
 - k) Helping colleagues
 - l) Mentoring colleagues, formal and informal
 - m) Collaborating on research or educational efforts
 - n) Administrative activities (e.g., program management)

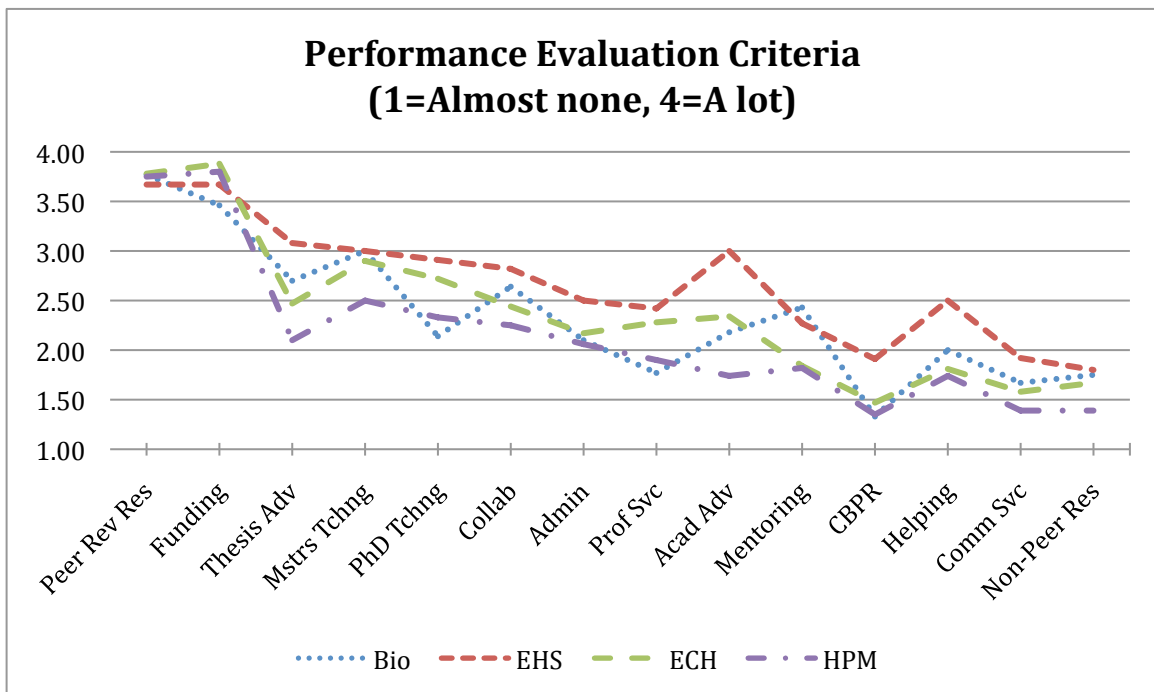


Figure 20. Average scores for each performance evaluation criterion by Division.

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Table 9. Averages and p-values for Performance Evaluation Items by Division, by Rank, and by Gender														
	Pro. service	Comm. service	CBPR	Funding level	Peer reviewed research	Non-peer reviewed research	Master's courses	Doctoral courses	Academic advising	Research/Thesis advising	Helping colleagues	Mentoring colleagues	Collaborating	Admin. activities
Overall p-value	0.15	0.11	0.08	0.65	0.66	0.51	0.05	0.08	0.01	0.05	0.03	0.00	0.13	0.10
SPH Mean	2.12	1.60	1.50	3.75	3.75	1.63	2.83	2.58	2.27	2.50	1.89	1.97	2.47	2.18
SPH St Dv	0.98	0.84	0.81	0.52	0.54	0.81	0.94	0.85	0.91	0.86	0.85	0.89	0.89	0.94
Bio	1.77	1.67	1.33	3.46	3.77	1.75	3.00	2.14	2.18	2.70	2.00	2.43	2.64	2.10
EHS	2.42	1.92	1.91	3.67	3.67	1.80	3.00	2.91	3.00	3.08	2.50	2.27	2.82	2.50
ECH	2.28	1.58	1.47	3.88	3.78	1.67	2.90	2.72	2.34	2.47	1.81	1.84	2.44	2.17
HPM	1.90	1.39	1.35	3.80	3.75	1.39	2.50	2.33	1.74	2.10	1.74	1.82	2.25	2.06
p-value	0.34	0.78	0.51	0.19	0.69	0.88	0.52	0.07	0.00	0.04	0.48	0.35	0.70	0.80
Asst	2.00	1.28	1.20	3.73	3.91	1.47	2.50	2.31	2.00	2.29	1.45	1.21	2.19	1.81
Assoc	2.00	1.68	1.69	3.81	3.67	1.53	2.70	2.46	2.14	2.30	1.70	1.74	2.47	2.28
Full	2.28	1.77	1.62	3.78	3.75	1.75	3.03	2.78	2.53	2.75	2.25	2.41	2.66	2.36
p-value	0.04	0.06	0.01	0.79	0.22	0.20	0.00	0.98	0.04	0.19	0.01	0.00	0.02	0.01
Tenure-track, tenured	1.84	1.41	1.28	3.85	3.77	1.26	2.65	2.50	2.24	2.44	1.67	1.65	2.24	1.95
Tenure-track, not tenured	2.36	1.79	1.61	3.68	3.75	1.81	3.08	2.83	2.41	2.56	2.07	2.15	2.75	2.33
Contract	2.13	1.55	1.60	3.74	3.74	1.74	2.70	2.36	2.14	2.50	1.91	2.05	2.38	2.19
p-value	0.03	0.03	0.02	0.86	0.39	0.16	0.03	0.11	0.21	0.93	0.30	0.05	0.03	0.02
Female	2.06	1.48	1.35	3.68	3.68	1.52	2.83	2.42	2.28	2.49	1.78	1.81	2.46	2.21
Male	2.10	1.65	1.58	3.81	3.81	1.65	2.84	2.70	2.25	2.49	1.98	2.12	2.51	2.19
p-value	0.65	0.42	0.11	0.24	0.59	0.48	0.87	0.18	0.71	0.50	0.60	0.52	0.64	0.77
Statistically significant relationships are highlighted.														

ITEMS FOR WORK ACTIVITIES

Specific types of work activities were of interest, hence these items were not grouped nor combined into a single scale.

- 1) Work Activities (How many hours per week do you usually spend in a typical WEEK in the following work-related activities?: 0, 1 to 4, 5 to 9, 10 to 19, 20 to 29, 30 to 39, 40 or more)
 - a) Scholarly writing/analysis
 - b) Teaching
 - c) Administration
 - d) Grant writing
 - e) Advising/Mentoring
 - f) University/SPH Service
 - g) National Professional Service

Table 10. Averages and p-values for Work Activities Frequencies					
	Scholarly writing / analysis	Teaching/ Advising	Administration	Grant writing	University / SPH service and National Professional service
Overall p-value	0.0003	0.51	0.0001	0.27	0.46
SPH Mean	4.16	5.95	2.63	2.66	4.09
SPH Standard Dev	1.30	1.43	1.09	0.81	0.98
Biostatistics	4.54	5.69	2.25	3.00	3.75
Environmental Health Sciences	3.36	6.00	3.36	2.40	4.18
Epidemiology & Community Health	4.00	6.10	2.75	2.59	4.32
Health Policy & Management	4.57	5.85	2.29	2.67	3.91
p-value	0.02	0.93	0.10	0.12	0.26
Assistant	4.74	5.57	2.14	2.78	3.95
Associate	3.50	6.47	2.45	2.50	4.05
Full	4.28	5.90	3.06	2.74	4.25
p-value	0.01	0.46	0.01	0.45	0.65
Tenure track – tenured	4.04	6.15	2.81	2.68	4.14
Tenure track – not tenured	5.00	5.88	2.00	2.88	4.12
Contract	3.55	5.36	2.60	2.36	3.67
p-value	0.05	0.37	0.54	0.40	0.55
Female	3.91	6.18	2.91	2.53	3.91
Male	4.45	5.80	2.33	2.80	4.21
p-value	0.37	0.44	0.0005	0.62	0.15

Statistically significant relationships are highlighted.

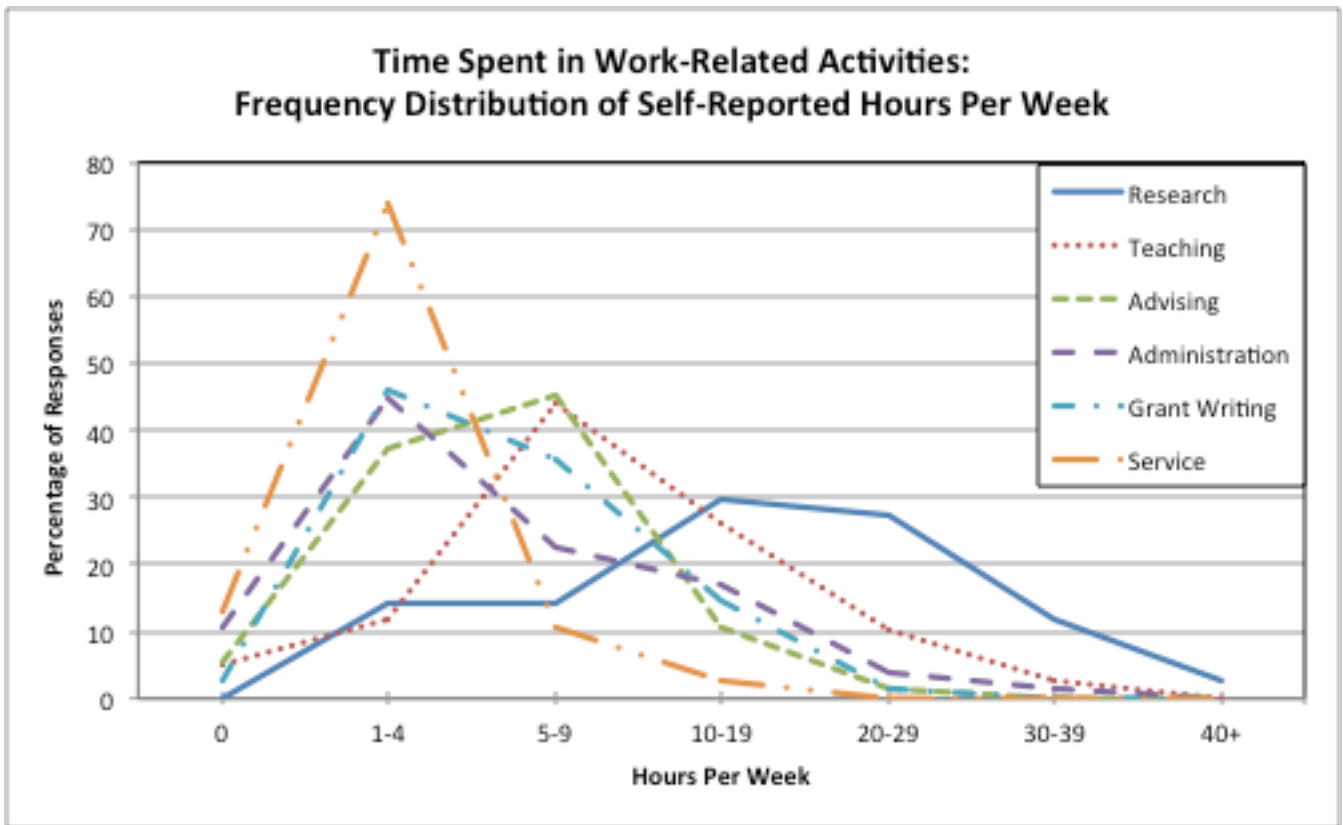


Figure 21. Percent of responses falling within each category for hours per week by work – related activities

NON-WORK ACTIVITIES

Specific types of non-work activities were of interest, hence these items were not grouped nor combined into a single scale.

- 1) Non-work Activities (How many hours per week do you usually spend in a typical WEEK in the following non-work related activities?: 0, 1 to 2, 3 to 4, 5 to 9, 10 to 14, 15 to 19, 20 to 29, 30 or more)
 - a) Physical activity/exercise
 - b) Hobbies/Interests/Recreation
 - c) Volunteerism
 - d) Care for children or other dependents

Table 11. Averages and p-values for Non-Work Activities Frequencies				
	Physical activity	Hobbies / Interests	Volunteering	Childcare / Dependents
Overall p-value	0.53	0.31	0.01	0.62
SPH Mean	3.05	2.72	1.58	3.65
SPH Standard Dev	1.08	1.15	0.76	2.92
Biostatistics	2.75	2.50	1.50	4.17
Environmental Health Sciences	3.36	2.82	1.73	4.36
Epidemiology & Community Health	3.13	2.97	1.47	3.41
Health Policy & Management	2.95	2.37	1.74	3.32
p-value	0.64	0.22	0.81	0.40
Assistant	2.86	2.59	1.14	4.46
Associate	2.90	2.90	1.74	3.53
Full	3.36	2.74	1.81	2.94
p-value	0.59	0.27	0.73	0.72
Tenure Track - tenured	3.23	2.87	1.81	3.13
Tenure Track – not tenured	2.81	2.62	1.19	4.25
Contract	2.80	2.20	1.20	4.90
p-value	0.69	0.07	0.73	0.98
Female	2.88	2.74	1.32	3.94
Male	3.26	2.74	1.84	3.40
p-value	0.21	0.91	0.01	0.84
Statistically significant relationships are highlighted.				

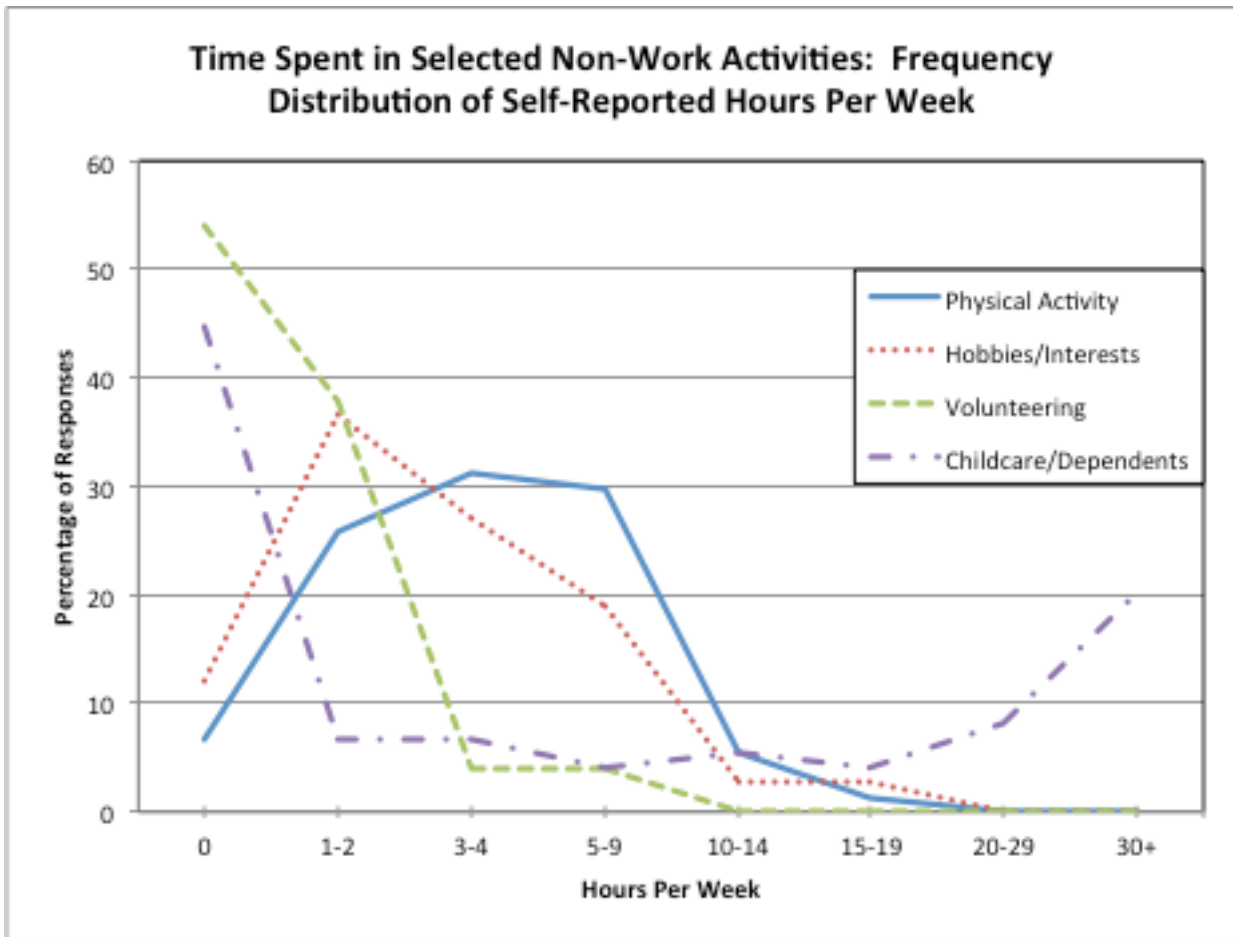


Figure 22. Percent of responses falling within each category for hours per week by non-work related activity.

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Table 12: Correlations of Key Constructs

	Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	Constructive Controversy	1.00																			
2	Conflict	-0.62	1.00																		
3	Helping	0.56	-0.50	1.00																	
4	Psychological Safety	0.53	-0.48	0.43	1.00																
5	Inclusiveness	0.56	-0.36	0.27	0.50	1.00															
6	Fairness rewards	0.40	-0.39	0.30	0.32	0.40	1.00														
7	Evaluation Process	0.35	-0.29	0.21	0.34	0.61	0.38	1.00													
8	Strategy Process	0.68	-0.53	0.42	0.60	0.65	0.38	0.44	1.00												
9	Strategic Plan	0.60	-0.37	0.31	0.49	0.61	0.43	0.50	0.92	1.00											
10	Leadership	0.60	-0.44	0.35	0.53	0.70	0.49	0.51	0.80	0.80	1.00										
11	Time for Students	0.26	-0.29	0.32	0.29	0.17	0.46	0.06	0.20	0.17	0.23	1.00									
12	Time for Research	0.19	-0.23	0.28	0.32	0.27	0.37	0.14	0.33	0.31	0.24	0.74	1.00								
13	Support – Administrative	0.32	-0.20	0.29	0.40	0.40	0.42	0.34	0.58	0.61	0.54	0.37	0.33	1.00							
14	Support - Grants	0.38	-0.21	0.43	0.19	0.33	0.32	0.00	0.14	0.11	0.33	0.30	0.21	0.23	1.00						
15	Work Life Balance	0.09	0.13	-0.10	-0.12	0.15	-0.28	0.04	-0.01	-0.03	-0.05	-0.41	-0.46	-0.10	0.00	1.00					
16	Identity - Professional	0.25	-0.26	0.32	0.20	-0.07	0.30	0.14	0.15	0.10	0.19	0.28	0.07	0.29	0.31	0.06	1.00				
17	Identity - Division	0.54	-0.37	0.30	0.41	0.41	0.37	0.25	0.40	0.30	0.39	0.20	0.07	0.36	0.40	0.23	0.50	1.00			
18	Identity - School	0.43	-0.39	0.39	0.35	0.10	0.14	0.06	0.42	0.25	0.31	0.20	0.14	0.18	0.33	0.10	0.65	0.65	1.00		
19	Satisfaction - Position	0.31	-0.15	0.17	0.23	0.32	0.41	0.18	0.32	0.25	0.34	0.36	0.47	0.44	0.25	-0.19	0.32	0.24	0.19	1.00	
20	Satisfaction - Performance	0.16	0.02	0.16	0.23	0.17	0.04	0.02	0.21	0.10	0.10	0.29	0.40	0.31	0.13	-0.21	0.01	0.02	-0.04	0.68	1.00

NEXT STEPS

Since Division differences were shown from this survey, FCC members will encourage their own Division faculty and Division Heads to open discussion of whether there are specific aspects of Division culture that should be examined further and potentially addressed with policy or other changes. Other differences shown from this survey were based on faculty rank, which FCC as a school-wide faculty committee is in a position to discuss and examine further over the coming year. FCC invites individual faculty to submit suggestions on issues on which to focus; an anonymous comment submission box can be found on the FCC web page, www.sph.umn.edu/sphfcc/home.html.

ACKNOWLEDGEMENTS

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