

Appendix A

Literature Review on Faculty Recruitment and Retention

Aspects of Recruitment

- Recruitment strategies
- Allocating funds
- Generational issues
- Educational programs and experiences
- Minority recruitment

Aspects of Retention

- Retention strategies
- Faculty satisfaction
- Faculty turnover
- Faculty development
- Mentoring
- Performance incentive compensation

RECRUITMENT

Recruitment Strategies

1. Trotman C, Bennett, Scheffler N, Tulloch J. Faculty recruitment, retention, and success in dental academia. *Am J Orthod Dentofacial Orthop* 2002;122:2-8.

This article describes a prospective study of four groups of dental professionals who were interviewed over the phone on their perceptions of an academic career. Four groups included 1) undergraduate dental students considering a future in any branch of academic dentistry, 2) graduates in a residency program who expressed at least some interest in an academic career, 3) junior full-time faculty who had started their career but were not yet tenured, and 4) more senior dentists who had the experience of a full-time academic career and a full-time private practice career. Results of the in-depth phone interviews were summarized and were based upon 8 persons in each group. The results are presented in the following 6 categories: 1) Teaching, 2) Research, 3) Training, 4) Flexibility, 5) Environment, and 6) Other.

Teaching: Overall, most dental professionals felt that teaching was rewarding although there was some thought that universities do not value or reward teaching. They also felt that new generation of students would be apathetic toward learning and the tremendous amount of work required to teach may not be worth the benefit.

Research: While most groups enjoyed research activities, they all agreed that research is a significant burden on faculty due to lack of time and stresses of obtaining funding. There were also reports of lack of mentoring and facilities to conduct research.

Training requirements: Dental students reported lack of information provided during school to become an academician and dentists reported that mentoring of future academics was inadequate. Junior faculty reported uncertainties or rigidity of tenure guidelines.

Flexibility: Flexibility was not seen as a benefit among academics compared to private practice and the “lack of control over career life” was a negative factor. Limitation in universities at specific cities and lack of child care were additional negative factors while multi-tasking during a workday was a positive aspect of an academic career.

Environment: Most felt that the academic environment was negative citing politics and unrealistic expectations from superiors.

Other: Most comments were specific issues related to the profession but flexibility in the job requirements and family friendly work environment were cited as additional concerns.

Suggestions:

- 1) Increased salary for academic dentists and loan repayment programs
- 2) Development of clinical and research tracks for faculty
- 3) Flexible workweek
- 4) Changing negative culture
- 5) Financial support of faculty positions
- 6) Distance learning to decrease faculty teaching burden
- 7) Different methods for faculty to be promoted
- 8) Importance of good mentors

2. Nurse Educator Workforce Development Advisory Council: Innovative Programs to Address the Nurse Faculty Shortage: NEWDAC at Work, *Nursing Education Perspectives*, July/August 2003. Vol. 24, No. 4.

The Nurse Educator Workforce Development Advisory Council (NEWDAC) have developed goals to address the nursing faculty shortage. This paper also describes a few innovative programs to address the nursing faculty shortage. These programs include:

- 1) collaborative partnerships with health care institutions with shared funding of faculty-clinical positions;
- 2) grow your own program where nurse alumni are hired as teacher’s aides; and
- 3) enhance recruitment efforts by focusing on advantages of faculty position.

3. Hessler K, Ritchie H. Recruitment and retention of novice faculty. *Journal of Nursing Education* 2006;45:150-54.

This article is basically a non-evidenced based commentary written by two Educators discussing the expected shortage in nursing faculty and the need to recruit and retain novice or younger faculty (defined here as less than 35 years of age). The basic premise

is that generation X and Y faculty have different values, expectations, needs and priorities that ultimately drive their decision to enter and/or stay at a given job.

Although this article is based entirely on the experiences and views of the authors, it is interesting in that it provides ten specific suggestions for hiring and retaining younger faculty. These suggestions include:

- Provide guidance
- Foster socialization
- Encourage flexibility
- Conduct orientation
- Provide support
- Facilitate collaboration
- Allow for mistakes
- Coordinate teaching assignments
- Grow your own
- Offer rewards

While many of these strategies are not new, the authors discuss each from the perspective of the younger generations. Although, not proven, these ideas provide insights into how the younger generations may make career decisions which may be useful in developing new strategies for attracting these individuals to academia.

4. A Career in Academic Pharmacy: Opportunities, Challenges, and Rewards Draugalis JoLaine R, et al. AJPE 2006;70(1) Article 17.

This article is a summary of a 2-hour program presented at ASHP Midyear meeting in December 2004. AACP has been sponsoring a program dealing with faculty recruitment, retention, and development every year at ASHP's Midyear meeting since 2000. The paper is actually a compilation of 3 presentations on the subject entitled, "The top ten reasons to consider a career in academia."

The first speaker, Dr. Draugalis, provided information on the current state of academic pharmacy including information sources on academic pharmacy (e.g., "Academic Pharmacy's Vital Statistics"), characteristics of pharmacy school applicants over the last couple of decades, and general characteristics of pharmacy faculty members in the US. She explains that part of the reason for the increased need in pharmacy faculty members has to do with the transition to solely a PharmD degree for pharmacists and the accompanying evolution of the pharmacy curriculum. The aging of our current body of faculty members will necessitate even further recruitment for new faculty in the near future.

She describes educational resources for new faculty including the Education Scholar, which could be a very valuable resource for new faculty. Lastly she summarizes a book by James Axtell entitled, *The Pleasures of Academe – A Celebration & Defense of Higher Education*, which provides both "pleasure" and academic reasons for considering a career in academia.

The second speaker was Dr. Dipiro. He presented on the 10 things that every faculty member should know to succeed in an academic environment, including such things as identifying and forming relationships with the successful people in your organization, finding people who are willing to help you (and possibly become mentors), doing things to ensure long-term success (networking, building a strong clinical practice, taking time to write quality papers, etc), knowing what is required for promotion and tenure before you even commit to a position, learning how to compete for resources, and not forgetting the basics (“teaching responsibilities and college service”).

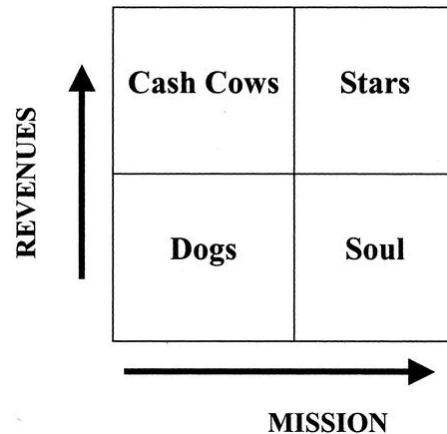
The third speaker was Dr. Zeolla, a “clinician educator” or non-tenure track faculty member at Albany. He described his view of how to be successful as a non-tenure track faculty member. His first and most important strategy was mentorship – this is key to success as a junior faculty member. Additionally, he explained the importance of goal setting with frequent re-evaluation, setting up a quality practice site and the importance of establishing a balance between responsibilities to the school and the practice, choosing an area of excellence to focus on, continuing to be a life-long learner (keeping up with medical literature and importance of obtaining certifications in your specialty area), the importance of not saying “yes” to every opportunity but to those with the most overall value to you and your career, and the benefits of collaboration.

The main article was followed by a summary of the panel discussion and questions which dealt with start-up packages (for tenure vs non tenure), doing a specialty residency vs a fellowship and how each would better prepare a candidate for a position, and opportunities in academia for those who are limited by geography.

Allocating funds

5. Joiner KA. A strategy for allocating central funds to support new faculty recruitment. Acad Med 2005;80:218-224.

The author describes the process of determining a faculty member’s value in an attempt to devise a strategy for allocating central funds to recruit a new faculty. One of the key paradigms discussed is the following categorization of “Projects” or faculty.



The author describes a strategy for utilizing net present value (NPV) for placing value on faculty and responds to others' objections for utilizing this model for faculty. He also discusses the limitations of using payback period such as favoring smaller, short-term projects and the difficulty in evaluating opportunity costs in adopting one project over another. The NPV paradigm uses cash flows from salary, fringe and ancillary personnel, supplies, equipment and facilities to determine a faculty's value. The NPV is estimated yearly and future cash flows are discounted back to the present value. Institutional historical data may also be used for modeling. Examples of cash flows for recruitment of three types of faculty are presented in the paper. While NPV does not fully capture the true 'value' of a faculty member, it may help in recruitment efforts and allocation of specific projects. It is simply one tool that can be used in decision-making. In response to some of the potential objectives to viewing faculty as 'projects', the author provides some responses.

- 1) Purpose of faculty recruitment is to foster scientific discovery, promote teaching and clinical care, not to make money: Limited central funds demand fund allocation and inappropriate recruitment may jeopardize important projects that need funding. The NPV model assumes that revenues generated by Cash Cows or Stars will support the Soul of the institution.
- 2) Faculty's revenue contributions are complex: Revenues should be projected using probabilities to weigh the expected cash flows but not using any method is inappropriate.
- 3) Faculty in different disciplines are not exchangeable: Using NPV for a recruitment of a faculty for one specific area (eg – teaching) may not be appropriate in this case but using this decision-making tool may still be helpful for estimating opportunity costs and overall allocation distribution.

Generational Issues

6. Bickel J, Brown AJ. Generation X: implications for faculty recruitment and development in academic health centers. *Acad Med* 2005;80:205-10.

This article was written based on growing concerns of a shortage of Medicine faculty and the assumption that Generation X will be the major supplier of the next generation of educators whereas most of the current leaders, bosses and recruiters are leaders baby boomers. The article provides a comparison of traits of Generation X and the baby boomers as it might relate to areas such as expectations for mentoring, characteristics of an ideal worker and expectations about academic careers. These discussions provide useful insight into the different attitudes and perspectives brought by these two generations. For example, differences in the definition of success and the balancing of work and family life are explored from the point of both generations. The article then provides various strategies for the two generations to work together effectively. These strategies focus on mentoring, faculty development and personnel decisions that relate to the likelihood of recruiting and retaining faculty from the next generation. While many of the recommendations are not new, the article provides a broad overview of the problems facing all healthcare faculty and provides a useful background and starting point for further discussion and research.

Educational Programs and Experiences

7. Seldomridge, Lisa: Attracting Students to the Professorate-A Faculty Shadowing Experience. *Nurse Educator*, Vol. 29, No.6. pp256-259. 2004.

This article describes a faculty shadowing experience for nursing students enrolled in an accelerated second bachelor's degree program. The shadowing experience is part of a leadership practicum in the final semester. It is designed around role exploration in management, leadership, and practice.

Of the 54 students who completed the experience, 32% indicated they would consider teaching as a career, 46% would not, and 22% were undecided.

Students wrote journal reflections on these prompts:

1. Describe the clinical days, what you did, how underclass students responded to you.
2. Discuss a challenge managed by faculty and how you have handled it.
3. What did you learn about the faculty role?
4. Which traits, attributes, and characteristics do you believe are needed to be an effective teacher?
5. Discuss whether you would consider teaching. What would encourage or deter you?

8. McNatty, D; Cox, C; Seifert, C. Assessment of Teaching Experiences Completed During Accredited Pharmacy Residency Programs. *Am J Pharm Educ* 2007; 71 (5) Article 88.

The primary objective of this analysis was to examine teaching experiences in residency programs accredited by the American Society of Health-System Pharmacists (ASHP) and how they relate to career choices in residents. The data was collected through a survey and was sent to residents who completed an ASHP residency from 2003 – 2006. The response rate of 11% was low, but did include 455 total responses. Overall, residents who completed two years of residency were more likely to have participated in a variety of teaching experiences versus the completion of one residency. If the resident completed their residency in a college or school of pharmacy they were more likely to have participated in teaching experiences. For the individuals who went on to take a faculty position following residency they were more likely to have given lectures, participated in problem-based learning (PBL) or small group seminars, and served as a primary preceptor during residency. The survey results support the need for continued inclusion of residents in a variety of teaching activities during residency training to help facilitate interest in academia as a career. The increase in formalized teaching certificate programs offered through residency training across the country should help support these results as well.

Minority Recruitment

9. Price, Eboni; Aysegul, Gozu; Kern, David; Powe, Neil; Wand, Gary; Golden, Sherita; Cooper, Lisa: The Role of Cultural Diversity Climate in Recruitment, Promotion, and Retention of Faculty in Academic Medicine. *J Gen Intern Med* 2005; 20:565-571.

This qualitative study using focus groups and semi-structured interviews explored one institution's cultural diversity climate and facilitators and barriers to success and professional satisfaction in academic medicine within this context.

Major findings include:

- 1) ethnic differences in prior educational opportunities lead to disparities in exposure to career options, qualifications for training programs and recruitment to training programs and faculty positions;
- 2) minority and foreign-born faculty report ethnicity-based disparities in recruitment to post-graduate appointments and faculty appointments and manifestations of bias in the promotion process;
- 3) minority faculty describe structural barriers (poor retention efforts, lack of mentorship, and cultural homogeneity, as barriers to success and professional satisfaction.

Suggestions for improving the diversity climate include:

- 1) increase faculty members' and leadership awareness of attitudes and behavior;
- 2) increase institutional leadership commitment to improving the diversity climate;

- 3) increase diversity in the institutional leadership; and
- 4) increase the number of faculty who identifies with the diverse patient population.

10. Stanley JM, et al. Changing the face of nursing faculty: minority faculty recruitment and retention. *J Prof Nurs* 2007;23:253-61.

As in the world of pharmacy, nursing faculty recruitment and retention are significant issues for nursing schools around the country. Minority faculty are an even more valuable and rare commodity. This article reviews current statistics on nursing faculty shortage, current minority enrollment in US nursing schools, and strategies for recruiting, empowering, and retaining minority nursing faculty.

Currently, minority nursing faculty represent less than 11% of all full-time nursing faculty, with minimal increases over the last decade. The low number of minority faculty is a consequence of the relatively low supply of RNs (especially minority RNs) with advanced nursing education. Many minority nursing students do not even get exposed to advanced educational opportunities and frequently do not have minority faculty role models to serve as mentors. The demand for RNs, especially minority RNs, with graduate training is extremely competitive, both in academic and in clinical settings. Compounding the problem is that academic salaries have not kept pace with those in other professional settings.

Recruitment and retention of minority (nursing) faculty is important to give minority students role models and mentors. The reasons they are important are to encourage other minority students to pursue advanced degrees and possibly academia as well as to increase minority student enrollment in nursing programs in general. Additionally, minority (nursing) faculty can help address the disparities that exist in healthcare – teach students, interface with patients, and conduct research relevant to healthcare needs of minority underserved populations. Evidence suggest that minority nursing faculty and practitioners are more “in tune” with minority health care issues and needs of minority patients and that they are more likely to assume positions in places that serve minorities.

The article then describes a number of strategies employed by nursing schools around the country to increase enrollment of minorities in nursing schools and increase number of those pursuing graduate degrees in nursing. This is again believed to be an important first step to increasing the number of potential minority nursing faculty candidates down the road. There were some very interesting programs and partnerships described. One of the most commonly mentioned strategies was mentoring programs between faculty and (potential) students; others included outreach to underserved populations, exposure of students to nursing research, and institution and community partnerships to increase knowledge of and access to graduate education.

The last portion of the article focused on specific strategies used for recruitment and retention of minority nursing faculty. Recruitment strategies included demonstration of a true long-term commitment to the value of diversity by the larger institution, faculty-student mentoring programs for post-doctoral students (to encourage consideration of academia as a career), and the creation of joint academic-clinical appointments and positions where the minority faculty member would be able to hold rank as a faculty member and teach while providing clinical service to a minority population of interest (sound familiar??). Retention strategies included making the minority faculty member feel welcome in the community and by the other faculty and staff members, assisting foreign faculty in obtaining and maintaining of appropriate documentation to maintain legal residency and employment, and for administrators to continually affirm and champion the benefits and rewards associated with diversity. Again having a university community that truly supports and nurtures minorities is important.

RETENTION

Retention Strategies

11. Falk NL. Strategies to enhance retention and effective utilization of aging nurse faculty. *Journal of Nursing Education* 2007;46:165-69.

Like pharmacy, nursing is facing a major nursing shortage and in particular a shortage of nursing faculty. This article is interesting in that it focuses on the large number of faculty who are approaching retirement and discusses retention strategies for continuing to tap into their experience and expertise. The article is organized into five main areas:

- Building and sustaining desirable work environments
- Discussing and understanding the needs of faculty members, programs, and institutions so the strategic plan reflects balance, understanding and need
- Engaging legislators and community leaders in creative problem solving
- Expanding options by looking outside of nursing
- Enhancing understanding and options within nursing by conducting further research

When reading through the various suggested strategies, it is interesting that many parallel the recommendations for dealing with the younger faculty such as developing flexible work schedules, telecommuting, encouraging wellness and promoting lifelong learning. Other strategies focus on issues more unique to the older faculty such as the need for benefits to cover time off and care for elderly parents or spouses. Numerous additional strategies are identified including phased retirement, emeriti or guest lecture programs.

Overall, I found this article to be very useful in providing new insights and creative ideas for retaining nursing faculty that could easily be applied to pharmacy.

12. . Argus Commission, Academic Affairs Committee, Professional Affairs Committee, Research and Graduate Affairs Committee. AACP Reports: Roadmap to 2015: Preparing competent pharmacists and pharmacy faculty for the future. Combined report of the 2005-06 Argus Commission and the Academic Affairs, Professional Affairs and the Research and Graduate Affairs Committees. *Am J Pharm Educ* 2006;70(5) Article S5.

The report discussed various issues facing the education and preparation of pharmacists and faculty for the future. The three main areas discussed were: 1) fundamental competencies of the professional degree programs to produce pharmacists as scientists, care providers and life-long learners, 2) impact of professional degree outcomes on the pre-professional preparation and desired competencies for admission, 3) expectation of society for accountability regarding continued competence of practitioners and faculty at all levels of careers.

Barriers for students to pursue academia were discussed such as financial, lack of interest, real or perceived pressures to pursue teaching, research and service missions, lack of adequate training, lack of mentoring, etc. Lack of interest in the K-12 levels of education was also reported and it was recommended that pharmacy faculty engage faculty colleagues in schools or departments of education to explore partnerships that will allow future teachers to “ignite interest in science and health in elementary and secondary education.” Formal faculty development/mentoring programs for new pharmacy faculty members were also discussed in the context of acculturating graduate students and new faculty without a pharmacy degree to the profession of pharmacy (ie – train the trainer model). At the end of the report, there was discussion of the revised ACPE accreditation standards that required all pharmacy programs support Continuous Professional Development activities. This may be one way to institute a formalized faculty development program that would include some process of self-assessment. This type of development can also be applied to preceptors as well. It was suggested that AACP would be able to assist colleges/schools in implementing CPD by providing various tools.

13. Buckley, L; Sanders, K; Shih, M; Hampton, C. Attitudes of Clinical Faculty About Career Progress, Career Success and Recognition, and Commitment to Academic Medicine. *Arch Intern Med, Vol. 160/ Sept 25, 2000.*

This is a report on a physician faculty survey. There were 310 physician from an academic medical center and VA medical center who responded. The survey divided physicians into two groups (Group 1, < 50% of time in clinical care [mean 31%]; Group 2, > 50% of time in clinical care [mean 71%]). Group 2 had one-third less time for scholarly activities, reported slower career progress, and were less likely to be at the rank of professor and/or be tenured. There was a response rate of 62% and only faculty who were in academia at the time of the survey were polled, thus physicians who had decided to leave academia were not surveyed. The authors conclude that academic medical centers are faced with two important challenges: (1) how to invest in the career development of clinical faculty in a way that is fiscally responsible and will further its mission and (2) how to change institutional reward systems to better recognize and encourage the contributions of clinical faculty.

Faculty Satisfaction

14. Ambrose, Susan; Huston, Therese; Norman, Marie: A Qualitative Method for Assessing Faculty Satisfaction. *Research in Higher Education*, Vol.46, No.7, November 2005.

This study determined why faculty leave and why others remain at a small, private Research I university. The study used semi-structured interviews, a qualitative approach rather than surveys. The study matched current and former faculty. One hundred and twenty three faculty members were interviewed. The primary reasons for faculty satisfaction or dissatisfaction were salaries, collegiality, mentoring, the reappointment, promotion and tenure process, and department heads. Other institution specific factors were the regional issues and the university's interdisciplinary focus.

Key findings include:

- 1) salary alone is rarely the primer mover in faculty leaving;
- 2) issue of collegiality is the single most frequently cited issue; this factor includes lack of time and interest on part of colleagues, intra-departmental tensions, and incivility;
- 3) effective mentoring or lack of mentoring was also a major source of satisfaction or dissatisfaction respectively; identified need for multiple mentors including for intellectual activities, professional/career development and departmental politics.
- 4) Lack of communication regarding the reappointment, promotion and tenure process (RPT) was an important issue especially among current faculty.
- 5) Role of department head is vital to success and satisfaction of junior faculty; characteristics of effective department heads included managed conflict well, created a sense of community, provided constructive feedback and mentoring, and communicated effectively; these department heads also treated people fairly, consistently, inclusively, responsively, and encouraging.

Discussed factors related to faculty retention including:

- 1) internal benefits such as autonomy, influence, sense of belonging, salary, facilities, fringe benefits, work rules;
- 2) external benefits such as non-work quality of life, family, friendships, and financial considerations outside of salary.

Research findings supported that intangible, internal factors such as collegiality, departmental leadership, mentoring, interdisciplinary and perceived fairness of the RPT process were high reasons for faculty satisfaction and dissatisfaction. However, they also found the importance of institution-specific issues affect retention.

The article discussed four sets of faculty grouped by perceptions of internal and external benefits and the institutional implications of each group. These include:

- 1) low internal benefits/low external benefits – often leads to person leaving institution; even person who do not leave become disengaged and disillusioned and impact retention in indirect ways.
- 2) Low internal benefits/high external benefits – do not leave but have detrimental effect on collegiality and thus indirect effect on retention.
- 3) High internal benefits/low external benefits – little can do to retain these folks. Make up for location by taking trips and spending summers away.
- 4) High internal benefits/high external benefits – never consider leaving even if more external lucrative offers.

15. Conklin, M; Desselle, S. Development of a Multidimensional Scale to Measure Work Satisfaction Among Pharmacy Faculty Members. *Am J Pharm Educ* 2007; 71 (4) Article 61.

The objective of this survey was to develop a multidimensional scale to measure work satisfaction among pharmacy faculty members and determine its reliability and validity. A 25 question survey was emailed to 4,228 pharmacy faculty members with a response rate of 22.7% (885 faculty). A similar breakdown of faculty response and demographics from the previous Conklin et al study was reported. The survey measured six factors which included: (1) resources for scholarship, (2) institutional support and reward, (3) requirements for promotion and tenure, (4) availability of a graduate program, (5) collegiality, (6) teaching environment. Each factor was measured on a 1 – 6 scale with 1 representing extremely dissatisfied and 6 representing extremely satisfied. All six factors mean score ranged from 3.76 – 4.68. Overall, this studies purpose was to try an validate these 6 factors/domains as reliable means to assess pharmacy faculty satisfaction. The authors concluded that respondents reported higher levels of satisfaction with teaching environment and lower levels of satisfaction with the availability of competent teaching and research assistants and time to pursue scholarship.

16. Marlow, Leslie; Inman, Duane; Betancourt-Smith, Maria: Teacher Job Satisfaction. U.S. Dept of Education, Educational Resources Information Center (ERIC)

This was a study of 212 K-12 teachers located in the Northwestern US, Alaska and Hawaii to determine reasons why they considered leaving their teaching positions. Forty-four percent of respondents indicated they “occasionally” consider leaving the profession while 18% “seriously” consider leaving the profession. Reasons for considering a career change and for leaving the profession include student issues (discipline problems, poor attitude toward school or learning, lack of motivation); emotional aspects (burnout, stress, frustration); lack of respect; and working conditions (workload, class size, administrative work with lack of administrative support, and inadequate resources). Participants were also asked about professional prestige or the respect afforded to teachers. Fifty one percent responded to say it was worse than expected. Per the literature, 66% of teachers cite this as a reason for considering or leaving the profession. Participants were also asked to cite reasons why they stay in the profession. Fifty four percent view teaching as an important and receive satisfaction from intrinsic rather than extrinsic rewards.

17. Nair, Kavita; Gaither, Caroline: Effects of Work, Non-Work, and Role Conflict on the Overall Life Satisfaction of Pharmacy Faculty. *Am J Pharm Educ* Vol. 63, Spring 1999.

This study of pharmacy faculty (n=63) at a college of pharmacy examined the relationship between work and non-work domain characteristics, role conflict and overall life satisfaction. Non work domains included social support, involvement in community activities, and socializing with friends. Survey responders worked an average of 48 hours per week and spent 18 hours per week on non-work related activities. The time spent outside of work was devoted to maintenance tasks rather than to hobbies or socializing. Faculty reported role conflict between their work and non-work lives. They indicated that their work takes away from their weekends and vacation time. When the survey responses were evaluated against the demographic characteristics, it was noted that single faculty with no dependent children were more likely to experience strain-based conflict than their married, parental counterparts. Factors that resulted in lower levels of role conflict and higher overall life satisfaction were: being married, community involvement, and socializing with friends.

18. Latif, David; Grillo, Joseph: Satisfaction of Junior Faculty with Academic Role Functions. *Am J Pharm Educ*. Vol 65, Summer 2001.

This survey was designed to evaluate the satisfaction of junior pharmacy faculty member (rank of assistant professor) with their academic positions. A total of 211 faculty responded to the survey. Respondents were most satisfied with their teaching responsibilities and least satisfied with their research. The overall satisfaction mean with an academic career was 3.2 on a scale of 1-5 (1 – very dissatisfied and 5 – very satisfied). The authors offer two suggestions to improving satisfaction in faculty. First, ensure the values of the candidates interviewing for faculty positions match the value system of the institution. Second, design and implement effective faculty development and mentorship programs.

Faculty Turnover

19. Conklin, M; Desselle, S. Job Turnover Intentions Among Pharmacy Faculty. *Am J Pharm Educ* 2007; 71 (4) Article 62.

The objective of this survey was to determine the primary reasons why pharmacy faculty intend to remain or leave their current institutions. The survey was sent to pharmacy faculty via email. There were 885 responses which was a 22.7% response rate. The responders included instructors (1.6%), assistant professors (39.3%), associate professors (33.0%), and full professors (26.1%). The gender of responders was close to even with 54.8% being male. More responses came from faculty at public than private universities with 69.3% and 30.7%, respectively. The top five reasons documented for faculty members remaining with their current institution were: (1) freedom in work, (2) geographic location, (3) good fringe benefits, (4)

relationship with department colleagues, and (5) family responsibilities. The top five reasons for faculty members to leave their current institution were: (1) seeking new challenge/desire for change, (2) excessive workload, (3) poor salary, (4) relationship with school/college administration, and (5) lack of research support. The authors concluded that pharmacy faculty members' decision to remain or leave an institution is dependent upon developing a sense of commitment toward the institution. Commitment is facilitated by support from the institution and department chair, in addition to a sense of satisfaction with the teaching environment.

20. Patton, Margaret; Kritsonis, William: The Law of Increasing Returns: A Process for Retaining Teachers-National Recommendations. Doctoral forum, Natl J Publish Ment Doctoral Student Research, Vol 3, No 1, 2006.

This review article searched reasons for job turnover. The article does not implicitly state the grade or level of student the teachers are working with; however, it appears to refer to K-12. The literature evaluated was categorized into common themes for turnover:

1. Lack of guidance for new teachers
2. Unsupportive principals or administrators
3. Lack of faculty input in decision making

The authors recommend "5 laws of increasing teacher returns" to reduce teacher turnover:

1. "Recruit teachers who are passionate about and who love children.
2. Provide new teachers with a highly qualified mentor.
3. Support teachers with classroom and school concerns.
4. Train new teachers on their curriculum, teaching strategies, etc.
5. Empower new teachers by promoting input into decision-making."

The advice provided in this article is based on the experience or perspective of the authors but supporting literature is also provided. Though the article is intended to recruit and retain K-12 teachers, the principles could be applied to college faculty as well.

21. Carter, O; Nathusuwan, S; Stoddard, G; Munger, Mark: Faculty Turnover Within Academic Pharmacy Departments. Annals of Pharmacotherapy. February 2003, Vol 37.

This survey sent to Basic Science (including Medicinal Chemistry, Pharmacology/Toxicology, Pharmaceutics) and Pharmacy Practice faculty across the country was designed to assess turnover percentages in colleges of pharmacy during a 5 year period. Faculty representing over 80 colleges of pharmacy responded to the survey. Turnover was higher in Pharmacy Practice departments compared to Basic Science departments (10.6% vs. 6%, $p < 0.001$) and among female faculty regardless of department (13.2% vs 8.7%, $p < 0.001$). While the survey was not designed to determine the reasons for higher turnover rates, the authors offered their ideas with supporting literature:

- Lack of job satisfaction

- Job stress from high workload, promotion and/or tenure expectations, and/or pressure to obtain funding for research
- Lack of sufficient mentoring
- Conflicting commitments with home and work

Faculty Development

22. Steinert, Y; Mann, K; Centeno, A; Dolmans, D; Spencer, J; Gelula, M; Prideaux, D: A Systemic Review of Faculty Development Initiatives Designed to Improve Teaching Effectiveness in Medical Education: BEME Guide No. 8. *Medical Teacher*, Vol. 28, No. 6, 2006, pp. 497-526.

This article is a systemic review of 53 articles describing the *effectiveness* of faculty development programs in medical education. Features of the chosen studies included: 1) focus on teaching (not research or other activities); 2) medicine discipline; 3) any type of offering (workshop, seminar, fellowship); 4) outcome data for the initiatives in addition to just participant satisfaction scores; and 5) Between 1980-2002.

Characteristics of the studies: 6 RCT; 47 quasi-experimental. The method of assessing outcomes was primarily questionnaires, but some with direct observation (of live or videotaped sessions). The majority of programs aimed to improve clinical teaching with emphasis on evaluation process, small-group teaching and lecturing skills. Program types were workshops (43%), and seminar series (19%). No program was completely lecture-based as they had some discussion or exercise component.)

39 studies (74%) assessed reaction (participant scores)

41 studies (77%) assessed learning (change in attitude, knowledge, skills)

38 studies (72%) assessed change in behavior

10 studies (18%) assessed change (organization or individual)

The authors provided summaries of the 8 most highly related studies, and offered suggestions based on the review findings. The reports noted positive overall satisfaction with faculty development programs, which resulted in increased knowledge and changes in teaching behavior of participants. Based on the results, the authors state that more research is needed to build upon the parts of the programs that have been successful. Developing programs that extend over time, and that stimulate reflection, and self-directed development are amongst the suggestions.

23. Steinert, Yvonne: Learning Together to Teacher Together: Interprofessional Education and Faculty Development. *Journal of Interprofessional Care*, May 2005, S 1: 60-75.

This article was based on work which was prepared for the Canadian National Expert Committee on Interprofessional Education. The author reviewed the literature and conducted focus groups to come up with barriers to, facilitators of, and recommendations for faculty development programs to foster interprofessional education (IPE.) A review of the literature from 1990-2003 didn't reveal articles that specifically addressed faculty

development for IPE. The focus group findings noted that barriers to IPE were “condescension and defensiveness”, a ‘silo’ approach, lack of knowledge of others’ roles, and lack of time. Strategies to improve IPE, as noted by the participants, include having faculty from diverse disciplines explain their roles at faculty development sessions, and creating opportunities for faculty from the professions to be able to discuss roles and have a comfortable exchange. The rest of the article describes the author’s rationale for the below recommendations.

Faculty development initiatives should:

1. Aim to bring change at the individual and organizational level
2. Target diverse stakeholders
3. Address content areas including IPE and patient-centered practice, teaching and learning, leadership
4. Variety of settings, diverse formats
5. Model IPE teamwork
6. Incorporate effective educational design
7. Consider adoption of a dissemination model for implementation

24. Teherani, Arianne; Hitchcock, Maurice; Nyquist, Julie. Faculty Development: Why Bother? Longitudinal Outcomes of an Executive-Model Program for Faculty Development. *Acad Med, Vol. 76, No. 10, October Supplement 2001.*

This article describes the opinions and outcomes after the first year, of a unique approach towards faculty development in medical education. The program was delivered over 12 intensive weekend sessions, with online continuity between sessions. The design of the program was based on a business school executive-training approach. Major topics for teaching and learning included curriculum design, research project development, small-group teaching, and learner evaluation. Participants were from all over the country. The end result of this specific program is a masters degree. Outcomes of the program were assessed by the completion of pre/post program questionnaires by the participants, and by interviews with supervisors or colleagues of the participants.

The main questions asked were:

- Did knowledge of teaching in clinical /classroom settings improve?
- Did clinical/classroom teaching skills improve?

The relevant findings were not new or surprising:

- Learning took place more often in situations where implementation was possible
- Hands-on active participation important
- Interaction with colleagues/networking encouraged learning

Overall outcomes of the program were positive, with the small sample size evaluated. Participants had significant self-reported knowledge gain in teaching-related topics. The article did not cover the particulars of the program design, and the authors acknowledged the limitations of using participant self-selection, as those participants already have a high level of motivation.

25. Malik, R; Bordman, R; Regehr, G; Freeman, R: Continuous Quality Improvement and Community-Based Faculty Development Through an Innovative Site Visit Program at One Institution. *Acad Med, Vol. 82, No. 5; May 2007.*

This brief article addresses the opportunity of including faculty development as a component of the experiential teaching site evaluation process. It was written by family medicine physician educators, who have the responsibility of arranging evaluation of clinical sites in a large geographic region. The practice site reviewers receive formal training, including an interactive “how to provide individualized faculty development” workshop prior to site visits. The program was set up with standardized forms, and clear instructions for a comprehensive and consistently provided program. Faculty development is then built into site visits. The advantage of this program is that it allows for teacher self-reflection and individualized faculty development right at the point of teaching. The authors suggest that the appreciation the teachers feel for the individualized development potentially helps the faculty feel more valued by their institution, which will hopefully result in retention.

The article emphasizes the importance and opportunities that can be gained by providing faculty development at the individual practice sites of clinical faculty. Incorporating such an approach into the academic program can lead to developing consistent approaches amongst preceptors.

26. Boucher, Bradley; Chyka, Peter; Fitzgerald, Walter; Hak, Lawrence; Miller, Duane; Parker, Robert; Phelps, Stephanie; Wood, George; Gourley, Dick: A Comprehensive Approach to Faculty Development. *Am J Pharm Educ*; 70 (2) Article 27.

This article describes the implementation of 3 faculty development programs at the University of Tennessee College of Pharmacy. The College has an 8-member faculty development committee.

Program 1 – Individual Faculty Development Program (IFDP). The committee placed the onus on each individual faculty member to determine his/her most pressing need. Each member has an opportunity to submit a proposal to support development in 1 of 4 categories; 1) personal development; 2) research skills; 3) clinical practice skills and 4) educational skills. The committee evaluates the proposals and provides recommendations to the Dean regarding which proposals should be funded.

Program 2 –Seed Research Grant Program. Provides support for small projects so faculty members could generate preliminary data to obtain additional funding

Program 3- Technology Support Program. Provides a modest stipend to faculty to enhance technology needs

The authors describe the flexibility and initial efforts of these programs over the first 2 years. Faculty recipients of grants were able to obtain additional grants and increase scholarly activity, and individual teaching improvements were noted.

The authors noted the limitations of these programs. In the current format, part-time faculty members do not benefit from the program. Additionally, schools of pharmacy will have to provide a financial commitment to ensure the ongoing success of the programs.

27. Reynolds JR, Briceland LL, Carter JT, Easton MR, Rider AG, Talluto BA, Tice BP, Flynn AA. Experiential education delivery – Ensuring success through support and development of the faculty and administrative team: Report of the 2004-05 Professional Affairs Committee. *Am J Pharm Educ*; 69(5) Article S9.

The focus of the report was to identify challenges and needs for the development of the personnel responsible for experiential education program delivery. Challenges in the recruitment and retention of faculty who can develop strong experiential sites with the focus on advancing patient care were discussed. The Committee focused on 5 areas of focus for the report: 1) identify professional development needs of the experiential education academic administrative team and faculty clinicians, 2) describe the scope of responsibilities for the

experiential education team, 3) propose administrative models and suggestion for continuous professional development of this academic team, 4) suggest resources, strategies and services that could be provided by AACP, 5) identify criteria for evaluating partnerships with community sites that provide appropriate scholarly environments.

AACP recognized that there is a need for institutions to accurately assess the level of financial and administrative investment for experiential education. For professional development of the faculty responsible for experiential education need to be adaptive in order to be beneficial for all types of faculty (junior, mid-range, senior faculty). Specific training in areas of learning theory and pedagogy was suggested as well as scholarly pursuits and leadership/management skills. Junior faculty may especially benefit from mentoring aimed at “ensuring successful performance and effective socialization into academia.” Specific considerations were also discussed for constructing professional development programs and strategies for increasing administrative support for faculty development programs.

There was also discussion of how the administrative team for experiential program would be designed as well as various responsibilities and reporting lines. There was also a suggestion that colleges and schools of pharmacy should “provide leadership development opportunities for faculty who may later assume leadership” position in experiential education program.

Finally, the report focused on clinician faculty and how professional development would be structured. There was recognition that most pharmacy school deans did not have clinical backgrounds or training to recognize the demands/needs of clinicians. Secondly, there was a greater value assigned to improve scholarly pursuits rather than clinical teaching. Various approaches to professional development for clinical faculty were recommended such as self-reflection, improving psychosocial skills, issues related to working in multiple institutions and establishing effective interpersonal relationship. The Education Scholar Program and Primer in Pharmacy Education were noted to aid in this process.

Finally, there was discussion of successful partnerships that can be developed in practice/learning environments. Practice-based scholarly activities were also discussed.

28. Taylor C, Berry T: A Pharmacy Faculty Academy to Foster Professional Growth and Long-term Retention of Junior Faculty Members. *Am J Pharm Educ* 2008;72(2) Article 32.

A pharmacy faculty academy developed as a faculty development plan to increase faculty satisfaction and retention is described. The framework for this model is based on frames of symbolic, structural, human resource and political. Both concentrated period and longitudinal period of activities were designed. Specific mentoring activities incorporated into the academy were also highlighted.

Mentoring

29. Sambunjak, Dario; Straus, Sharon; Marusic, Ana: Mentoring in Academic Medicine: A Systemic Review. *JAMA*, Vol. 296, No. 9, September 6, 2006.

A systemic review found 42 articles relating to mentoring in academic medicine. This article evaluated the impact of mentoring on personal development and career guidance, academic career choice and retention, and research development and research productivity.

Highlights of the review include:

- 1) less than 50% of medical students and in some fields fewer than 20% of faculty members had a mentor;
- 2) perception that women had more difficulty finding mentors than the men;
- 3) mentoring was an important influence on personal development, career guidance, career choice, and productivity;
- 4) mentoring had an important effect on research productivity, including publication and grant success;
- 5) only perceived negative effect of mentoring was that mentors used mentees' work to advance their own career.

They highlighted need for future research in this area including:

- 1) effect of mentorship on those interested in education-based careers;
- 2) effect of strategies to enhance mentorship for women;
- 3) effect on career development and productivity of formal mentoring vs informal mentoring.

30. Fuller K, Maniscalco-Feichtl M, Droege M: The Role of the Mentor in Retaining Junior Pharmacy Faculty Members. *Am J Pharm Educ* 2008;72(2) Article 41.

This article emphasized the role of mentoring for retaining faculty members and decreasing workplace stress, especially in the area of scholarship . Two mentoring processes are briefly described: dyad and the triad mentoring model. The authors proposed that the triad mentoring model (organization, mentor, and protégé) is preferred to promote an environment that nurtures relationships, and enhances faculty retention.

31. **Campbell, William. Mentoring of Junior Faculty. *Am J Pharm Educ* Vol. 56, Spring 1992.**

The article outlines strategies for successful mentoring of junior faculty. The mentor must be dedicated to the protégé and be available. The mentor must be willing to discuss both career related and personal subjects and give advice where applicable. It is very important that mentoring begin on the first day of the protégé's job and continue on a regular basis to ensure success. The protégé should be given a complete orientation to the school and to expectations of the job. A mentor must be a sponsor, a coach, a protector, a counselor, and a friend amongst other things and must be willing to play all of these roles or the relationship will not work. It is important that the mentor have no hidden agendas, be objective, keep crises in perspective, and teach the protégé how to "survive" in the academic environment. The article also discusses the psychology behind mentoring.

32. **Chalmers, Robert K. Faculty Development: The Nature and Benefits of Mentoring. *Am J Pharm Educ*, Vol. 56, Spring 1992.**

Administrators and departments should encourage faculty growth by emphasizing time management and goal setting behaviors. Faculty members should make a personal plan with a timeline for that year which includes measurable goals, and how to monitor them. The department head should review and evaluate the plan with the faculty member. This also poses an opportunity to discuss areas the faculty member may need to develop or focus attention on. A personal annual report should also be included listing productivity, efforts, and recognition. These development strategies will help faculty become more effective leaders of useful change. Mentoring allows a mentor to develop and unveil a mentee's potential. The goal is the transformation of a mentee to a mentor who possesses abilities and skills that will promote and encourage growth in others. Through this process the mentor will grow as well.

Principles of Mentoring

Mentor and Protégé maturity

The mentee should have self confidence, long term career goals, and the ability to grow with present responsibilities. A mentor should portray good abilities and habits to the mentee. A mentor who is unaware of his performance or attitude deficiencies will not be an effective mentor.

Initiation

The mentor assists a junior faculty member by listening and making observations as to see where strengths, weakness, and tendencies of the faculty member lie.

Cultivation

There should be openness among the mentor and protégée so observations, recommendations, feelings and needs can be expressed.

Redefinition

As growth continues, the relationship should change from a mentor-protégé relationship to a peer relationship

Effective Mentoring Practices

- Practice good working and thinking habits, and mentor them
 - Good habits to encourage in junior faculty (vision, focus, writing plans, respect, and sharing credit)
- Try to focus on keeping balance and harmony
- Don't agree to more than you can do (Self-Discipline)
- Exercise responsibility for your performance
- Learn from your personal experiences
- Mentoring is important at any stage of growth
- Progress takes time

- Appreciation for your accountability for authority and opportunities given to you

33. Pololi, Linda; Knight, Sharon; Dennis, Kay; Frankel, Richard. Helping Medical School Faculty Realize their Dreams: An Innovative, Collaborative Mentoring Program. *Academic Medicine*, Vol. 77, No. 5 / May 2002

The traditional model for mentoring of a junior faculty member in academic medicine may pose problems for both mentor and protégé, and this article discusses a program designed to address these issues. The program discussed was geared toward “professional development, emotional support, career planning, and enhancement of personal awareness and skills”. It was designed to be “group-mentored” rather than a single mentor-protégé model approach.

The mentoring program took place at the Brody School of Medicine at East Carolina University (1999-2001). The program was initially started in 1999, and then repeated a second time, concluding in 2001. It was an 80-hour program that lasted eight months, consisting of a three-day initial session, then meeting for one full day each month for six months. Group session topics included: “team building, value clarification, career planning, collaboration, negotiation, conflict resolution, oral and written presentations, and gender and power issues.” In addition to facilitators, sessions often utilized input from participants, and were often group-based. Role-play activities were used to illustrate scenarios regarding the session topic, and individual written reflections of the activities were shared with the group. There was also an emphasis on scholarly writing, and 16 manuscripts from participants were submitted or accepted for publication from the first program, as well as 11 from the second program.

Both quantitative (percent attendance, participant completion of tasks, etc.) and qualitative data (perceptions from participants) were evaluated for the group-mentoring program. The program provides an alternative to a traditional model that may avoid some of the limitations of a more traditional model, such as limited perspective or personality clashes between a single mentor and protégé. The program also fosters communication and interaction between faculty members, as well as providing multiple view points on each topic of discussion. The authors suggest that this model may provide a more comfortable environment for junior faculty, and potentially reduce faculty turnover, which may cost \$250,000 or more per member to replace.

34. **Thorndyke, Luanne; Gusic, Maryellen; George, John; Quillen, David; Milner, Robert. Empowering Junior Faculty: Penn State's Faculty Development and Mentoring Program. *Academic Medicine*, Vol. 81, No. 7/July 2006.**

In 2003, Penn St. University College of Medicine implemented its Junior Faculty Development Program (JFDP) to empower junior faculty members (Defined as an Assistant Professor w/ less than five years at the institution) and develop their academic success. The goals of the JFDP are to promote development/achievement, cultivate academic leaders, and retention of native faculty. The program uses the irredentists of access to opportunities, information, support resources and relationships to form both a Mentoring Program and a Curriculum for Professional Development. By the published model these two lead to empowerment and then success.

The Program consists of 30 two-hour sessions with some additional sessions. Participants were expected to devote four hours per week to the program. Participants were also able to learn up to 50 in category 1 continuing education credit. Each faculty completed a project which aligned with their individual academic interest. The junior members were matched with senior faculty advisor of their choosing, if approved by the planning committee.

Fifty-six faculty members have completed the program since 2003. The program's sessions and each presenter are rated in a post session evaluation. Participants also reported their feelings on the program each session. Most of the participants have agreed that they were at minimum satisfied with the program and would recommend the program to others. It should be noted basic scientists noted a greater satisfaction than MD participants. Junior participants with the help of the program have been able to identify career goals and paths with a greater knowledge of policies for possible promotion and tenure at the institution.

The program suggests six recommendations for the success of the program: Use of the empowerment model, institutional commitment and accountability, efficiency with budget, development of relationships among all faculty involved, the use of mentoring to support junior faculty members and the use of a team based approach in aspects of faculty development programs.

35. **Bussey-Jones, Jada; Bernstein, Lisa; Higgins, Stacy; Malebranche, David; Paranjape, Anuradha; Genao, Inginia; Lee, Bennett; Branch, William. Repaving the Road to Academic Success: The IMeRGE Approach to Peer Mentoring. *Academic Medicine*, Vol. 81, No. 7 / July 2006.**

Over the past few years the field of academic medicine has faced the obstacle of encouraging medical students to pursue a career in academic medicine. For physicians selecting a career in academic medicine may be the first hurdle, the challenge of successfully maintaining an academic career is perhaps a more formidable task. Mentoring is a much needed task response to this challenge. However, tradition mentoring programs at academic institutions is often limited by available senior faculty

who can serve as mentors, among other things. The authors describe the formation and organization of the internal medicine research group at Emory (IMeRGE), an innovative peer mentoring group within the Division of General Medicine at Emory University. This group was born partially out of the mentoring needs of the women and minority faculty, shared the primary goal of fostering a collaborative atmosphere among junior faculty, while simultaneously acquiring experience through advanced faculty development. The authors present the methods of garnering division support for designated time and financial resources, defining member responsibilities, developing a curriculum, providing peer support, and seeking advisors with expertise in the areas on which each individual wished to focus. In addition to the development of IMeRGE, the authors provide an overview of the pros and cons of traditional mentoring versus peer mentoring; discuss the challenges faces by IMeRGE and strategies for addressing these issues; and present the paradigm of IMeRGE as a template for alternative forms of academic mentorship.

Mentoring is important part of the academic medical field. It helps junior faculty members define career aspirations, set goals, gain constructive feedback, build skill-building tool, make connections with influential people, acquire letters of recommendations, and earn nominations. This sounds good but traditional mentoring relationships can be asymmetrical and produce sameness/homogeneity, they have potential for exploitation, personalities can clash, they can promote emotional or professional dependency, and they can lack consistency. The author's solution is Peer mentoring. The peer mentoring group is a group of individuals who are essentially equal in age, experience, and rank. The advantages of peer mentoring include: it promotes professional and personal support and friendship development; it enhances psychosocial functions, it's more flexible, all participants have something of value to bring to the group, its bi-directional, and its longer lasting. The disadvantages are that it can promote competition, lack of accountability, lack of funding, personal conflicts, limited or no funding and there is a limited advisory role due to less experienced members.

IMeRGE goals include: providing advanced faculty development, didactic curriculum, hands-on projects, group support and it encourages individual endeavors. The IMeRGE group is made up of 2 members that are responsible for overall structure with support for individual areas. Each member is expected to show up and contribute and participate in group projects and to provide constructive feedback. They have 1 to 2 hour didactic sessions with speakers from within the university every Monday afternoon.

36. Zeind CS, et al. Developing a sustainable faculty mentoring program. *AJPE* 2005;69(5) Article 100.

This article describes a formal mentoring program designed and implemented at the Massachusetts College of Pharmacy and Health Sciences (MCPHS). The program components included the following: formation of a mentoring subcommittee; faculty mentoring guidelines; pairing a new faculty member (protégé) with a senior faculty member (mentor) and individual meetings between protégés and mentors; an orientation program at the start of the academic year; monthly seminars/workshops throughout the academic year; and

end of the year workshop. Preparticipation and postparticipation questionnaires about the faculty mentoring program were used to assess changes in perceived abilities of protégés and mentors in areas of teaching, service, and scholarship.

MCPHS is a private institution comprised of the SOP-Boston, SOP-Worcester (distant site), School of Arts and Sciences, School of Health Sciences, and the Divisions of Instructional Resources and of Graduate Studies. This was an institution-wide mentoring program. Each protégé was paired with one mentor for the year-long formal mentoring program; the protégé and mentor did not have to be from the same discipline or have similar areas of expertise. After completing the first year, the protégé transitioned into a peer advisory team which included the original mentor if desired (62% did) and an additional mentor. Details about the mentoring program including program goals, criteria for mentors, goals for mentoring, and examples of seminar/workshop topics were given in the paper as well. The program has been continually undergoing revision since its inception in 1999 and has since added such benefits as formal mentor training for new mentors.

From the Results, after 5 years of the program, 93 protégés and 73 mentors have participated in the formal mentoring program, and the evaluations have been largely very positive. Self-perceived abilities of protégés increased in all areas addressed. Interestingly, perceived abilities of mentors also showed some increases following the faculty mentoring program. Hopefully in a few more years we will know more about the long-term impact of this mentoring program on faculty retention. After 5 years of the program, retention rate of those in the SOP-Boston that completed the mentoring program was 79%. I am not sure how this compares to retention rates in general...

One of the key points that they mention in the Discussion that is the most noteworthy has to do with what contributed to success of the program. Major contributing factors to the success of the faculty mentoring program were cited to be "the vision and commitment of the mentorship subcommittee, the unwavering support of the School of Pharmacy-Boston leadership and the other schools and divisions, as well as that of the College administration as a whole." The president and Provost of the College attended all major mentoring events and provided financial support for them. Their support added legitimacy to the program and highlighted the program's importance to the College's mission and goals. The Provost/VP for Academic Affairs participated in all mentoring events and provided protégés with a book entitled, *Advice for New Faculty Members*. Also noteworthy: faculty mentors earned "service credits" that could be included in their annual activity reports and promotion materials. The time and money invested into this program by the faculty and College leadership are worthwhile long-term investments.

Performance Incentive Compensation

37. Reece EA, Nugent O, Wheeler RP et al. Adapting industry-style business model to academia in a system of performance-based incentive compensation. *Acad Med* 2008;83:76-84

This article provides a brief review of performance-based incentive programs and then describes in substantial detail a program developed at the University of Arkansas for Medical Sciences College of Medicine. The program was developed with the hope that it would provide motivation and incentives for educational and research excellence and through the option of uncapped salaries lead to greater faculty satisfaction and retention. The plan is intentionally flexible in order to accommodate various departments and faculty with different roles. Faculty receive a base salary and then an incentive salary based on productivity in clinical practice, research, academic performance, and academic citizenship. Incentive pay is calculated separately for each of the above four areas that apply.

The College also conducted a faculty satisfaction survey to evaluate the program and make necessary adjustments. The system has been useful for better aligning activities and priorities of individual faculty with the department's goals and mission. This article also provides a fairly detailed discussion of the impact of the program on financial resources and faculty productivity along with the identification of potential pitfalls and limitations. While not totally applicable to all schools of pharmacy, this article provides many creative ideas and a new way of viewing faculty compensation that many schools may be able to adapt to their own setting.

38. Joiner, K; Hiteman, S; Wormsley, S; St. Germain, P. Timing Revenue Streams from Newly Recruited Faculty: Implications for Faculty Retention. *Acad Med, Vol. 82, No. 12/ December 2007.*

The primary objective of this research was to determine the timing and magnitude of revenues generated by newly recruited faculty. All cash flow from research, clinical care, tuition, philanthropy, royalties, and patents from all new faculty in the University of Arizona College of Medicine from 1998 to 2004 was collected. During the specified time frame there were 311 faculty appointed to the College of Medicine. The amount of revenue brought into the university by faculty was presented in a variety of ways in this publication. Overall, the results reveal that tenure-track faculty and more specifically faculty with laboratory research programs generated the largest amount of positive central cash flow into the university. Logically, faculty who were more established at the university (> 15 yrs) were the most productive in central revenue generation. The results of this study support the importance of faculty retention because even the most successful tenure-track faculty with laboratory programs need to be retained for at least 10 years for the university to recoup the initial central investment required for their recruitment.

39. **“SOP Faculty Incentive Plan”, University of Maryland. July 2006.**
<http://www2.pharmacy.umaryland.edu>

Eligible participants include full-time faculty with a tenure or tenured-track appointment. Others must request permission to be considered eligible for the plan. Faculty may receive incentive once they have reached 5% of their base salary. Salary support can exceed 55% of base salary, but incentive cannot exceed 35% of 55% base salary. Incentive is not a part of cost of living or merit increases. Incentives are paid bi-weekly.

40. **“Faculty Incentive Plan.” School of Pharmacy: Operating Policy and Procedure. Texas Tech University. 2 May 2003.** <http://www.ttuhsc.edu/sop>

Plan provides rewards in the areas of teaching, research, and service. Faculty who receive extramural funding that replaces state appropriated salaries may elect to use 25% of the grant savings to support their research programs or be paid a special salary augmentation. A portion may go to their research programs and the remainder to augment their salary. Various incentives are given to faculty for teacher of the year awards and effective instruction. Faculty in practice settings can be paid a salary augmentation of 10% of the contribution margin, based on a combination of team efforts and individual performance by the faculty.

41. **“Health Sciences Compensation Plan.” School of Medicine and School of Pharmacy: Implementation Procedures. University of California, San Diego. 29 January 2002.** <http://pharmacy.ucsd.edu/>

Eligible faculty includes those who spend 50% or more of their time in the School of Medicine or Pharmacy. The plan addressed additional compensation such as that from royalties, honoraria, stipends, or other outside professional activities. Awards are in addition to base salaries. Elaborate plan with many subsections.