Title

Part-time careers in academic internal medicine: a report from the association of specialty professors part-time careers task force on behalf of the alliance for academic internal medicine.

Journal

Academic medicine : journal of the Association of American Medical Colleges, 84(10)

ISSN

1040-2446

Authors

Linzer, Mark
Warde, Carole
Alexander, R Wayne
et al.

Publication Date

2009-10-01

DOI

10.1097/acm.0b013e3181b6bf8c

Peer reviewed

Part-Time Careers in Academic Internal Medicine: A Report From the Association of Specialty Professors Part-Time Careers Task Force on Behalf of the Alliance for Academic Internal Medicine

Mark Linzer, MD, Carole Warde, MD, R. Wayne Alexander, MD, PhD, Deborah M. DeMarco, MD, Allison Haupt, LeRoi Hicks, MD, MPH, Jean Kutner, MD, MSPH, Carol M. Mangione, MD, MSPH, Hilit Mechaber, MD, Meridith Rentz, MBA, MPH, Joanne Riley, RN, Barbara Schuster, MD, Glen D. Solomon, MD, Paul Volberding, MD, and Tod Ibrahim for the Association of Specialty Professors Part-Time Careers Task Force

Abstract

To establish guidelines for more effectively incorporating part-time faculty into departments of internal medicine, a task force was convened in early 2007 by the Association of Specialty Professors. The task force used informal surveys, current literature, and consensus building among members of the Alliance for Academic Internal Medicine to produce a consensus statement and a series of recommendations. The task force agreed that part-time faculty could enrich a department of medicine, enhance workforce flexibility, and provide high-quality research, patient care, and education in a cost-effective manner. The task force provided a series of detailed steps for operationalizing part-time practice; to do so, key issues were addressed, such as fixed costs, malpractice insurance, space, cross-coverage, mentoring, career development, productivity targets, and flexible scheduling. Recommendations included (1) increasing respect for work–family balance, (2) allowing flexible time as well as part-time employment, (3) directly addressing negative perceptions about part-time faculty, (4) developing policies to allow flexibility in academic advancement, (5) considering part-time faculty as candidates for leadership positions, (6) encouraging granting agencies, including the National Institutes of Health and Veterans Administration, to consider part-time faculty as eligible for research career development awards, and (7) supporting future research in "best practices" for incorporating part-time faculty into academic departments of medicine.

Acad Med. 2009; 84:1395–1400.

Editor's Note: A commentary on this article appears on page 1330.

With a new generation entering the physician workforce, opinions on work–life balance are changing. As a result, part-time careers have become increasingly prevalent in the medical profession. Yet despite widespread interest in part-time work, departments of internal medicine have been reluctant to embrace part-time careers. There are many reasons for this, including anticipated costs, scheduling challenges, and, perhaps most important, a culture that values presence and long work hours as a sign of commitment to one's patients and the academic mission. The Association of Specialty Professors (ASP)—the organization of specialty internal medicine divisions at medical schools and community teaching hospitals in the United States and Canada—prepared a document on part-time careers in 2005 for the five member organizations of the Alliance for Academic Internal Medicine (AAIM): ASP, the Association of Program Directors in Internal Medicine, the Clerkship Directors in Internal Medicine, the Association of Professors of Medicine, and the Administrators in Internal Medicine. AAIM is a consortium of five academically focused specialty organizations representing departments of internal medicine at medical schools and teaching hospitals in the United States and Canada. The more than 4,000 members of AAIM consist of department chairs and chiefs; clerkship, residency, and fellowship program directors; division chiefs; and academic and business administrators as well as other faculty and staff in departments of internal medicine and their divisions. Currently, AAIM represents 126 U.S. university-affiliated residency programs and 20 Canadian programs. The 2005 document on part-time careers outlined an agenda for more effectively including part-time faculty in departments of internal medicine. With high enthusiasm for the proposal by AAIM member organizations, ASP convened in early 2007 a task force to formally address issues related to part-time academic careers. The task force, with members representing 11 academic institutions, was charged with developing (1) definitions of part-time work, (2) mechanisms for operationalizing part-time academic careers, and (3) new means for funding and supporting part-time research careers. The task force met by conference call over the course of 18 months, with the primary goal of producing this consensus statement and thus making academic internal medicine

Please see the end of this article for information about the authors.

Correspondence should be addressed to Dr. Linzer, General Internal Medicine, Hennepin County Medical Center, 701 Park Avenue, P7, Minneapolis, MN 55415; e-mail: (Mark.linzer@hcmed.org).

inclusive of those who choose part-time careers.

Demographics and social values have changed in academic internal medicine during the past 25 years. In 1981, women composed approximately 25% of matriculating U.S. medical students. In 2007, the number of men and women entering medical school was commensurate.[1] As of 2006, females represented 46% of instructors, 38% of assistant professors, 26% of associate professors, and 14% of full professors in departments of internal medicine.[2] Meanwhile, generational changes in perceptions on work–life balance are evidenced in the specialty choices of medical students: "[Recent] trends show an increase in residency applications for 'controllable life' specialties (e.g., anesthesia, dermatology) and decreasing applicants for primary care."[3] Work–life balance is important for young faculty (both men and women) with children, midcareer faculty with elders at home, and older faculty who seek less strenuous work schedules. If internal medicine is to remain a vibrant and competitive profession, it must adapt to changing trends in society and lead the way in recognizing, recruiting, and supporting physicians who choose part-time careers.

The high prevalence of dual-physician households makes child care issues more troublesome, and while work–home tensions are common for families, these may be even more striking for physicians whose professional culture of selfless devotion to work adds to a higher burnout risk. As Bickel et al[4] have noted, the "unlimited availability" of faculty to work in clinical, educational, and research roles has encouraged organizations to expect excessive productivity on all counts from most faculty, which in turn has led many faculty to opt out of academic medical careers[5] or simply reduce work hours.[6] Increasingly, younger physicians want flexible work environments that provide opportunities for meaningful contributions to society as well as part-time careers.[3]

Definition of "Part-Time"

Part-time faculty have been defined as those who "work less than full-time but whose full professional effort is directed toward the institution."[7] Some studies define part-time as "less than 1.0 FTE"[8,9]; others refer to "reduced hours."[10] Some studies use physician self-report,[11,12] and many select 40 hours as the cutoff.[13–15] In an informal survey of the 11 task force members, full-time was described as eight to nine 4-hour sessions per week for ambulatory physicians, with 0.5 FTE or more required to be eligible to receive benefits. In recent unpublished surveys (personal correspondence, Vikas Parekh, co-chair, Academic Hospitalist Task Force, Society of General Internal Medicine, January 2008), full-time hospitalists require at least 26 to 28 weeks or 175 to 200 eight- to twelve-hour shifts per year of inpatient medicine. Full-time work for subspecialists is defined as the number of clinic sessions, inpatient months, teaching sessions, and procedural sessions (e.g., for colonoscopies or dialysis) that are standard for the relevant discipline. Generally, human resource departments define acceptable parameters for part-time faculty and the benefits that accompany part-time university status.

Operationalizing Part-Time

Although many departments wish to support part-time faculty, they often face challenges in implementing programs successfully. Typical issues include fixed costs, malpractice insurance, space, cross-coverage, mentoring, productivity targets, career development, and the need for flexibility in scheduling. Another challenge is the need to modify work hours quickly in response to life events, and to allow faculty to move between part-time and full-time work during different career phases. The following sections will address these issues, using data when available and task force members' experiences and suggestions when not.

Clinician faculty

The literature clearly shows part-time faculty are able to attain clinical excellence; patients of part-time and full-time physicians express similar satisfaction with their care, and patient outcomes are comparable.[15,16] Part-time physicians often have increased productivity, as they may choose to extend their work into nonpaid time.[16] Therefore, part-time clinical faculty can readily be incorporated into the department. A 0.75 FTE clinical faculty member would attend 75% of clinic sessions compared with a full-time physician, take 75% of call, and assume 75% of productivity targets. Part-time faculty may or may not carry their pagers when off duty. Part-time faculty may enter into job shares with another faculty member who is present when the part-time member is absent. Office space and computer support may also be shared.

Clinician–educators

The clinician–educator's work schedule could also be prorated. Clinician–educators may benefit from job-sharing options with other educators. The part-time clinician–educator would require time allotted for educational activities. Care should be taken to set realistic expectations for "productivity." Ideally, as with full-time faculty, educational activities should be compensated by mission-based allocation of institutional education funds rather than salary from clinical dollars. Division chiefs can support part-time faculty by not assuming they have more "free" time to spend on nonclinically related activities.

Clinician investigators

Many academic medicine leaders believe that full-time effort is required to succeed as a physician–scientist. This traditional belief has made the concept of a part-time investigator controversial, even in light of discussions over how to make the physician–scientist career pathway more appealing to trainees. According to Dr. Nancy Andrews,[17] dean of Duke University Medical School, one reason why women refrain from entering the physician–scientist pipeline is the difficulty in combining career and family life. Dr. Andrews suggests that "family/work balance must be accepted as an issue that affects young faculty of both sexes, or the traditional division of labor will be perpetuated and the de-valuation of women for time spent on family will continue." She notes that some institutions have created small grants and stops in the tenure track to help faculty meet a work–life balance.

Applicants for National Institutes of Health (NIH) career development awards (K series) are typically required to hold full-time positions and devote at least 75% of their effort to research and career development. Existing awards can

support part-time researchers if those individuals have "a disability or pressing family circumstances." Allowing all part-time faculty to participate in NIH career development awards would allow more faculty to choose physician–scientist pathways. Altering NIH career development award (K series) eligibility status at a point when many female physician–scientists are grappling with pregnancy and child care may improve women's perceptions of the research pathway. Furthermore, with part-time careers on the rise among male faculty, expanded eligibility for K series awards may lead to increased participation in research among *all* faculty. Recent policy notices by NIH have begun to allow K awardees to be part-time.

Other grants should be made available to part-time faculty. The Department of Veterans Affairs (VA) could promote a process through which their Career Development Awards would allow part-time faculty to extend their training from three to five years. The T. Franklin Williams Scholars Awards, available through ASP,[18] are part of a career development program that provides two- to four-year awards to junior investigators interested in a geriatric aspect of their specialty; the Williams Scholars program could take the lead in developing flexible opportunities. The Horn Scholars Award, through the Society of General Internal Medicine, is a three-year program that funds half an FTE for a clinician–educator who is dedicated to caring for the underserved; the Horn Award is given to an academic faculty member who chooses to work half-time in order to balance work and home responsibilities.[19]

Administrative roles

No task force member reported knowledge of written rules prohibiting part-time faculty from assuming administrative responsibilities; rather, members provided examples of part-time faculty who had successfully assumed administrative roles, often in combination with clinical and educational responsibilities. Promoting part-time faculty to administrative roles may require changes in institutional culture and expectations. The position in question should be defined by the tasks that need to be accomplished rather than how much time a person is physically in the office.

Costs

The decision to hire part-time physicians has fiscal implications; responsibility, workforce flexibility, and physician supply should be key considerations in this decision. There are both costs and savings in hiring part-time physicians. For example, a part-time workforce can provide high-quality, satisfied physicians who are fully connected with the clinical and academic missions of the department. These part-time faculty can also allow the department to comfortably handle shifts in patient demand. Part-time "float" physicians may make up for varying costs in benefits and resources with flexible availability and productivity, and the costs of a part-time physician may be less than those of a locum tenens. In fact, both of these are reasonable choices for filling predictable workforce shortages.[20]

The operational cost of replacing a primary care physician has been estimated at $250,000.[21] If retention rates are higher among part-time faculty because of higher job satisfaction,[22] or if part-time faculty fill urgent gaps in service needs, hiring part-time faculty may lead to overall cost savings in recruitment. Further, part-time clinicians, educators, and researchers may actually be more productive than their full-time counterparts because of more flexibility of time and energy.

Reimbursement of part-time faculty in academic medical centers is typically approached in one of two ways: (1) percentage of FTE or (2) on an hourly basis (per diem). Other methods of reimbursement may be based on a percentage of practice profits or generated revenue minus overhead. Profit-sharing plans vary by institution, and part-time physicians may or may not be eligible to participate in such plans. For a part-time salaried physician, available benefits packages vary according to institutional policies. When a part-time physician is paid on a per diem basis, benefits other than malpractice insurance and space are not usually offered. The per diem hourly rate is frequently less than the comparable hourly rate of a full-time physician (salary plus benefits). The per diem model enables flexibility in scheduling physicians to meet varying patient demands, as well as allowing vacation and sick leaves without locking in a fixed cost to the department.

Overhead and educational costs are often the same for full- and part-time physicians and will drive up the cost of hiring a part-time physician. Sharing office space, administrative support, and equipment may defray some of this cost.

An accurate financial analysis of a part-time work option begins with a well-defined job description and benefits plan (List 1). Part-time academic positions present both quantitative and qualitative benefits and costs to physicians and their institutions (List 2). Synthesizing a division's workforce needs with a faculty member's career goals and income requirements can result in an optimal work arrangement for both parties.

Part-time faculty members are more satisfied and have less burnout.[22] Job dissatisfaction and burnout can potentially translate into decrements in morale and productivity, which are hidden—but real—costs to institutions. The implications of these qualitative factors can be considerable; part-time faculty, who are less susceptible to such factors, may consequently improve patient satisfaction and productivity as well as recruitment and retention.[23,24]

Most institutions provide malpractice coverage regardless of an individual physician's FTE, largely because most academic medical centers are self-insured. Self-insured organizations purchase secondary insurance coverage for catastrophic losses. Because secondary insurance is based on total number of FTEs, there is no financial detriment

List 1

Personal and Professional Considerations for Part-Time Positions

- Career goals
- Personal goals
- Division values and needs
- Job responsibilities
- Protected time at home
- Eligibility for extramural research funds
- Income
- Benefits
- Professional resources

List 2
Factors in a Financial Analysis of Part-Time Work Options

Quantitative factors

- Reimbursement options
- Scheduling flexibility
- Benefits
- Malpractice insurance
- Overhead
- Productivity
- Recruitment and retention cost savings
- Absentee cost savings

Qualitative factors

- Values and mission of academic institution
- Physician workforce availability
- Physician expertise
- Quality of care
- Workplace culture
- Physician morale

associated with secondary coverage when it comes to having part-time physicians.

Risk management programs prefer full-time to part-time physicians because the risk of a malpractice claim is based on claim history rather than FTE. This issue is important to organizations that buy commercial malpractice insurance, as part-time physicians may pay a higher percentage than their percent FTE for commercial insurance. Malpractice insurance rates fall dramatically for part-time physicians who give up active clinical practice and limit clinical work to volunteer status.

Promotional clocks and track changes

Part-time faculty members need the appropriate amount of time to develop their careers, and lengthened promotional clocks that parallel their FTE will allow this. In many universities, only tenure-track positions are time-limited, requiring that promotion and granting of tenure occur within a prescribed time frame—usually seven to nine years. Commonly, non-tenure-track pathways like the clinician–educator's are not time-limited. These tracks usually are more flexible and may not inhibit career development for part-time faculty. Building this flexibility into clinician–scientist positions would potentially enhance the recruitment and retention of faculty at a time when fewer physicians are selecting physician–scientist career paths.

There are few studies that directly examine the issue of part-time faculty promotional clocks and productivity targets. Socolar et al[13] report on policies regarding tenure, promotion, and benefits of part-time faculty. In 1996, the researchers surveyed 126 medical schools. Of the 104 respondents, 95 schools had a tenure system, and about one third gave part-time faculty a tenure-track option. The tenure clock without delays for part-time faculty averaged 7.4 years (median 7 years, range 3–21 years). At institutions with tenure systems, 83% allowed delays in the tenure clock. The average time for slowing the tenure clock was 3.0 years (median 2 years, range 1–30 years).

A more recent analysis of tenure policies noted that 37 medical schools offered tenure to part-time faculty in 2005. Of these schools, 23 institutions kept data on the number of less-than-full-time faculty. On average at these medical schools, 4.1 men and 4.3 women used the policy in 2003–2004 and 2004–2005.[2]

Part-time faculty may choose to move off more demanding tracks during periods of increased personal responsibilities. Many institutions have promotion criteria for both clinician–scientist and clinician–educator tracks. Harvard Medical School recently established promotional guidelines that delineate processes for academic advancement for each track without prohibiting faculty from changing promotional pathways.

Mentoring part-time faculty

According to Bickel and Brown,[3] "Bringing junior and senior members of the academy together in systematic ways assists junior members to navigate the complex academic environment more smoothly, to assimilate high professional norms, and to become excited about academic careers." However, many institutions have described challenges and also solutions to the difficulties inherent in providing formal mentoring to junior and midcareer faculty.[25,26] Mentoring part-time faculty may present challenges different from those faced when mentoring full-time faculty. Mentors must value the part-time faculty member's ability to meaningfully contribute to the institution. Because it is likely that there will be cross-gender and cross-generational mentoring relationships, attention to mentoring "across differences"[3] can help bridge gaps that may exist in perception of topics such as work–life balance. Part-time faculty should look for supportive mentoring and may need to seek long-distance mentors.

A successful example of "nontraditional" peer mentoring is IMeRGE (Internal Medicine Research Group at Emory).[27] This group, formed by faculty at the same academic level with diverse strengths and interests, came together to provide mentorship to each other. The program stemmed from the mentoring needs of Emory's women and minority faculty, who shared the primary goal of "fostering a collaborative atmosphere among junior faculty, while simultaneously acquiring experience through advanced faculty development."[27] Faculty garnered funding support for structured meetings, group projects, and curricular design. A similar peer-mentoring strategy could be effective for meeting the needs of part-time faculty.

Practice coverage

Full-time faculty often raise concerns that their part-time colleagues' schedules may disrupt practice coverage.[14] Practice leaders must clearly communicate coverage plans to support staff, patients, and members of the practice and must ensure an equitable distribution of labor. Relative FTE should be considered, and there may be different approaches to day and night/weekend coverage for full- and part-time faculty. Practice coverage issues are best handled at the division, or even practice, level. Approaches include

1. Shared coverage: Two part-time faculty with complementary schedules share a patient panel and coverage for that panel.
2. Pooled coverage: If there is a sufficient number of part-time faculty, a "pool" of part-time faculty participate in covering for each other.
3. Prorated coverage: Night and weekend coverage/call is determined on the basis of percent FTE.

Part-Time Principles From the Medical College of Wisconsin Section of General Internal Medicine

The Section of General Internal Medicine at Medical College of Wisconsin under

the leadership of Dr. Ann Nattinger has a well-regarded history of including part-time faculty in all career paths. Dr. Nattinger's management principles include the following:

1. Be *nonjudgmental* about who is going part-time and why; do not assume part-time is always for young women with children.
2. Create *transparent and fair* policies; avoid jealousy from full-time faculty.
3. *Standardize* processes for urgent clinical matters so part-time faculty participate equitably.
4. Provide *flexibility* for part-time faculty as much as possible.
5. Consider providing *full (not prorated) professional development* dollars to all faculty regardless of FTE.

Although each of these principles could be debated, what is paramount is that academic divisions and sections devise transparent, fair standards for part-time and full-time faculty, and that open discussion be encouraged in order to seek acceptance from all faculty.

Discussion

Several years ago the National Health Service (NHS) in the United Kingdom instigated the "Improving Working Lives of Doctors" program.[28] The program emphasizes part-time practice for young physicians entering practice and older physicians prior to retirement. In a program survey, 75% of female physicians and 29% of male physicians expressed an interest in part-time practice. The survey also showed that 37% of female physicians avoided particular specialties because of a lack of flexible work opportunities. Included in the NHS program are child care strategies and reentry pathways. Such a program could serve as a model for future implementation of the above recommendations in the United States. As noted in the program's preface, "The scheme has now been extended to facilitate more part-time opportunities for general practitioners, and help doctors at every level work flexibly while continuing their careers . . . to work well, it needs to be part of a wider change in medical working practices that values and harnesses the commitment of those who wish to work flexibly or reduced hours."[28]

Recommendations

1. The task force supports the definition of "part-time" from Froom and Bickel,[7] which states that part-time faculty may work less than full-time but devote full effort to the institution.
2. The task force is appreciative of recent changes in NIH policy that allow full-time faculty to change to part-time; the task force asks NIH to also consider allowing part-time researchers to apply for K awards. The task force encourages all granting agencies and foundations to consider part-time faculty eligible for research awards.
3. The task force suggests the following responses by departmental leaders to ensure that part-time faculty succeed:
   - Increase programs to support work–life balance.[3]
   - Educate other institutional leaders about potential benefits of part-time faculty in administrative roles (e.g., recruitment and retention, role modeling, improved morale).
   - Emphasize flexible time as well as part-time.
   - Directly address negative perceptions of part-time faculty as colleagues who transfer their workload to full-timers.[14]
4. The task force urges every academic institution to develop policies to allow flexibility in academic advancement to allow for part-time faculty, personal/family issues, and changes in career direction.
5. The task force encourages investigators to research "best practices" in part-time pathways and test the hypotheses that part-time practice can enhance the attractiveness of internal medicine careers, and improve recruitment, retention, and productivity in a cost-effective manner.

Academic internal medicine is currently challenged to meet the needs of its members created by the demographic trend toward gender equalization, dual-career physician households,[29] and the increasing influence of personal–professional balance in career decisions. This consensus statement can serve as a starting point for any institution that wants to be part of the solution. There is evidence of lower rates of dissatisfaction and burnout among part-time physicians. The lower incidence of such factors may enhance part-time physicians' motivation, creativity, efficiency, and patient-centered communication skills. The task force believes that part-time physicians need not be excluded from any academic roles and has outlined approaches to addressing many barriers, including costs, malpractice insurance, practice coverage, mentoring, and funding sources for academic careers.[30] Following the task force recommendations will lead to a fundamental reshaping of the practice of internal medicine, with teamwork, cross-coverage, and lengthened career development trajectories as new aspects of the profession. Part-time faculty will be able to perform research, assume leadership roles, and practice clinical medicine as productive partners with full-time faculty. Most important, the broad-based acceptance of part-time careers as a viable pathway will improve the process for implementing part-time programs, promote recruitment and retention, and diminish the stigmatization of part-time faculty at U.S. medical schools and teaching hospitals.

Dr. Linzer is Task Force Chair and professor and chief, Section of General Internal Medicine Scholars, Department of Medicine, University of Wisconsin-Madison, Madison, Wisconsin.

Dr. Warde is Task Force Vice Chair and professor and associate program director, Department of Medicine, University of California, Irvine, Irvine, California.

Dr. Alexander is R. Bruce Logue Professor and Chair, Department of Medicine, Emory University, Atlanta, Georgia.

Dr. DeMarco is associate dean, Graduate Medical Education, University of Massachusetts Medical School, Amherst, Massachusetts.

Ms. Haupt was policy associate, Alliance for Academic Internal Medicine, Washington, DC, at the time of the Task Force.

Dr. Hicks is assistant professor of medicine, Harvard Medical School, Boston, Massachusetts.

Dr. Kutner is associate professor and division head, Division of General Internal Medicine, University of Colorado School of Medicine, Aurora, Colorado.

Dr. Mangione is professor of medicine and public health, David Geffen School of Medicine and School of Public Health, University of California, Los Angeles, Los Angeles, California.

Dr. Mechaber is assistant professor of medicine and director, Office of Professional Development and Career Guidance, University of Miami Miller School of Medicine, Miami, Florida.

Ms. Rentz was vice chair of administration, Department of Medicine, Emory University School of Medicine, Atlanta, Georgia, at the time of the Task Force.

Ms. Riley is division administrator, Section of General Internal Medicine, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania.

Dr. Schuster is campus dean, Medical College of Georgia/University of Georgia Medical Partnership Campus, Augusta, Georgia.

Dr. Solomon is professor and chair, Department of Medicine, Boonshoft School of Medicine, Wright State University, Dayton, Ohio.

Dr. Volberding is professor and vice chair, Department of Medicine, University of California, San Francisco, San Francisco, California.

Mr. Ibrahim was executive vice president, Alliance for Academic Internal Medicine, Washington, DC, at the time of the Task Force.

Acknowledgments

This consensus statement was endorsed by the Association of Specialty Professors and other organizations within the Alliance for Academic Internal Medicine, April to August 2008.

References

1 Ley TJ. Demographics of the physician–scientist workforce in 2007: Impact of age, gender, degrees, and debt. In: APM Physician–Scientist Initiative Consensus Conference Proceedings. Washington, DC: APM; 2007. [Copies can be obtained by contacting APM at (www.im.org).]
2 Association of American Medical Colleges. U.S. medical school faculty. Available at: (http://www.aamc.org/data/facultyroster/reports.htm). Accessed June 24, 2009.
3 Bickel J, Brown A. Generation X: Implications for faculty recruitment and development in academic health centers. Acad Med. 2005;80:205–210.
4 Bickel J, Wara D, Atkinson BF, et al. Increasing women's leadership in academic medicine: Report of the AAMC Project Implementation Committee. Acad Med. 2002;77:1043–1061.
5 Levine RB, Mechaber HF. Opting in: Part-time careers in academic medicine. Am J Med. 2006;119:450–453.
6 Warde C, Allen W, Gelberb L. Physician role conflict and resulting career changes: Gender and generational differences. J Gen Intern Med. 1996;11:729–735.
7 Froom JD, Bickel J. Medical school policies for part-time faculty committed to full professional effort. Acad Med. 1996;71:91–96.
8 Heiligers PJM, Hingstman L. Career preferences and the work–family balance in medicine: Gender differences among medical specialists. Soc Sci Med. 2000;50:1235–1246.
9 Levinson W, Kaufman K, Bickel J. Part-time faculty in academic medicine: Present status and future challenges. Ann Intern Med. 1993; 119:220–225.
10 Barnett RC, Gareis KC, Carr PL. Career satisfaction and retention of a sample of women physicians who work reduced hours. J Womens Health. 2005;14:146–153.
11 Cull WL, Mulvey HJ, O'Connor KG, Sowell DR, Berkowitz CD, Britton CV. Pediatricians working part-time: Past, present and future. Pediatrics. 2002;109:1015–1020.
12 Carr PL, Gareis KC, Barnett RC. Characteristics and outcomes for women physicians who work reduced hours. J Womens Health. 2003;12:399–405.
13 Socolar RRS, Kelman LS, Lannon CM, Lohr JA. Institutional policies of U.S. medical schools regarding tenure, promotion, and benefits for part-time faculty. Acad Med. 2000;75:846–849.
14 McMurray JE, Heiligers PJM, Shugerman RP, et al. Part-time medical practice: Where is it headed? Am J Med. 2005;118:87–92.
15 Murray A, Safran DG, Rogers WH, Inui T, Chang H, Montgomery JE. Part-time physicians: Physician workload and patient-based assessments of primary care performance. Arch Fam Med. 2000;9:327–332.
16 Fairchild DG, McLoughlin KS, Gharib S, et al. Productivity, quality and patient satisfaction: Comparison of part-time and full-time primary care physicians. J Gen Intern Med. 2001;16:663–667.
17 Andrews NC. The other physician–scientist problem: Where have all the young girls gone? Nature Med. 2002;8:439–441.
18 Alliance for Academic Internal Medicine. Career development: Grants and scholarships. Available at: (http://www.im.org/CareerDevelopment/GrantsandScholarships/Pages/default.aspx). Accessed June 24, 2009.
19 Society of General Internal Medicine. Awards: The Mary O'Flaherty Horn Scholars in General Internal Medicine. Available at: (http://www.sgim.org/index.cfm?pageId=670#ELIGIBILITY%20REQUIREMENTS). Accessed June 24, 2009.
20 Linzer M, Rosenberg M, McMurray JE, Glassroth J. Respecting the lifecycle: Rational workforce planning for a section of general internal medicine. Am J Med. 2002;113:443–448.
21 Buchbinder SB, Wilson M, Melick CF, Powe NR. Estimates of costs of primary care physician turnover. Am J Manag Care. 1999; 5:1431–1438.
22 Mechaber HF, Levine RB, Manwell LB, Mundt MP, Linzer M. Part-time physicians . . . prevalent, connected and satisfied. J Gen Intern Med. 2008;23:300–303.
23 Simoens S, Scott A, Sibbald B. Job satisfaction, work-related stress and intentions to quit of Scottish groups. Scott Med J. 2002;47:80–86.
24 Grol R, Mokkink H, Smits A, et al. Work satisfaction of general practitioners and the quality of patient care. Fam Pract. 1985;2: 128–135.
25 Foster SW, McMurray JE, Linzer M, Leavitt JW, Rosenberg M, Carnes M. Results of a gender-climate and work-environment survey at a midwestern academic health center. Acad Med. 2000;75:653–660.
26 Fried LP, Francomano CA, MacDonald SM, et al. Career development for women in academic medicine: Multiple interventions in a department of medicine. JAMA. 1996;276: 898–905.
27 Bussey-Jones J, Bernstein L, Higgins S, et al. Repaving the road to academic success: The IMeRGE approach to peer mentoring. Acad Med. 2006;81:674–679.
28 Department of Health, National Health Service. Improving Working Lives for Doctors. Available at: (http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4008796). Accessed June 24, 2009.
29 Sobecks NW, Justice AC, Hinze S, et al. When doctors marry doctors: A survey exploring the professional and family lives of young physicians. Ann Intern Med. 1999;130(4 pt 1):312–319.
30 Oliva J. Retooling today's practices to accommodate part-time physicians. Physician Exec. 2005;31:56–59.