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Jefferson Medical College Annual Report, 2006

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Jefferson Medical College Thomas Jefferson University

Annual Report 2005 - 2006

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Introduction

The 2005-2006 Annual Report of the Jefferson Medical College of Thomas Jefferson University represents the general report of the College. This general report of the College's activities is distributed to the Board of Trustees and members of the faculty and student body of the Medical College. The academic departments and the institutes issue separate reports. A complete set of all annual reports can be found in the Scott Memorial Library, the President's Office, and the Dean's Office.

Compiled and Edited by

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State of the College



September is a time of reflection on the past year's performance, and a time to embrace the challenges of the next year. This September is unusual, in that it is the beginning of the eighth year in our Liaison Committee on Medical Education (LCME) Accreditation Cycle, and a time to reflect on not only last year's progress, but also a time to review the past seven years, and anticipate the next cycle after the LCME's visit in March 2007. A manifestation of this dual reflective and projective process is the result of the rather extensive "Self Study" process required in the LCME Accreditation process. Nearly 200 members of the faculty and student body have spent the past nine months examining all aspects of the functions of the Medical School, examining our processes and outcomes against both our stated objectives, as well as the LCME Standards.

Contained in this annual report are assessments of current performance in a wide range of areas, from applicant admission parameters, through student standardized test scores, educational network expansion, faculty research productivity, and financial performance. We at Jefferson are fortunate to benefit from the work of Joseph Gon-

nella, MD, and the Center for Research in Medical Education and Health Care, and are able to track many of these parameters over the past 35 years, giving us not just a recent, but also historic perspective on the quality of our graduates, the effectiveness of our educational programs, and their evolution. These statistical reports are contained in this publication.

In this section of the annual report, I will take an unusual tact and report our progress in a number of key areas over the past five to seven years. And since it is the year of our LCME site visit, I will concentrate predominantly on the undergraduate medical education programs.

First, let us examine our student's evaluation of Jefferson's performance in their educational process. In order to gain perspective on the opinions of our students regarding their experience here at Jefferson, I will provide a glimpse of the LCME Student Survey data collected by our students in preparation of their independent LCME report. The Student Survey is a separate component of the LCME Self Study Process. A committee of students creates a survey working with a member of the Center for Research in

Medical Education and Health Care, administers the survey to all classes, and then writes an independent report which is delivered to the LCME. Jefferson's Student Survey was composed of 90 items, and the response rate was >88%. The following 14 figures are taken from the student survey results.

Figure 1. "Jefferson faculty view education as a priority and show a vested interest in teaching students."

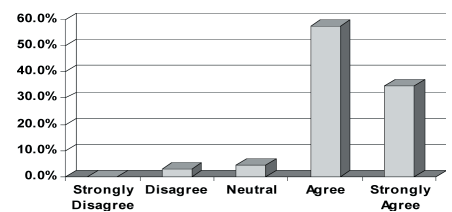
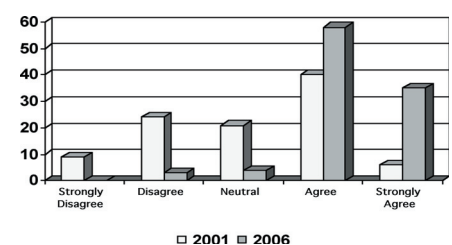


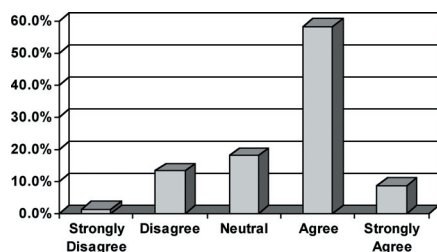
Figure 1 demonstrates our students' assessment of the interest and effort of the faculty on their behalf in their educational program. As can be seen in this graphic, over 90% of our students respond positively to the effort of the faculty on their behalf.

Figure 2. Comparison, 2001 and 2006 Student Opinions, "Jefferson faculty view education as a priority and show a vested interest in teaching students."



As can be seen in Figure 2, this 90% approval rating is more striking in light of the less than 50% positive response to this question in the student survey of 2001. This response is the result of the efforts of the faculty to enhance the quality and effectiveness of their educational efforts, the deliberate decisions of the faculty and administration to create promotion tracks that reward faculty for educational efforts, enhance the requirements for educational excellence in all promotion tracks, and to create funds flow methodology to support the educational mission.

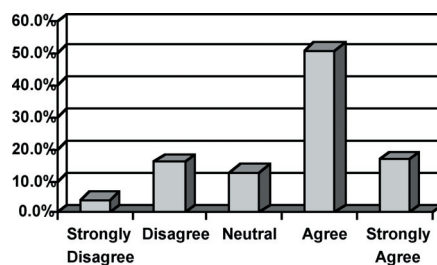
Figure 3. "The caliber of lecturers is strong and lecturers are able to convey basic science concepts in a relevant clinical context."



The conventional wisdom is that students in medical school do not value lectures, and that attendance is poor. That is no longer the case at Jefferson. Our students value and attend lectures (positive responses are 20% higher in 2006 than in 2001). This is despite the availability of Power Point presentations on the intranet, now coupled with the audio of the actual lecture within 12 hours of the lecture itself, as well as complete lecture syllabi (both hard copy and digital). Our students are serious about their learning, and our faculty are serious about the quality of their teaching. The result of this has been a synergistic enhancement

of the student faculty relationship, and the positive feedback to the faculty has resulted in further enhancements of the quality of their efforts. This is the manifestation of the constructive collaborative educational environment called for in the Strategic Plan of 2001-2002. The faculty and students have caused it to happen!

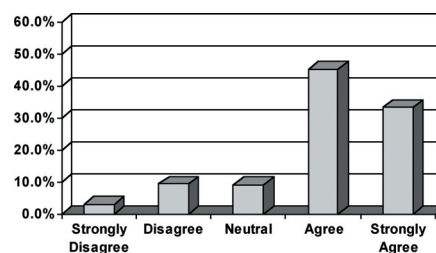
Figure 4. "Attending Lectures is a good use of my time."



For many years, the number grading system was an item of contention on the campus. Some felt that the grading and ranking system in the first two years motivated students, while others felt that premature stratification merely prevented team learning and fostered unnecessary competition. Furthermore, with the advent of the computerized residency application process, USMLE Step 1 scores (National Boards, Step 1) provided prospective residency programs with a standardized assessment of basic science knowledge that could be used to compare candidates. In 2003, Jefferson joined the other 112 medical schools that moved to some variant of "Pass-Fail-Honors" systems for grading in the basic sciences. While issuing number scores on each test as performance feedback (seen by students) the final grades reported are Pass (70%), Fail (Below 70%), and Honors

(≥90%). The impressions of our current students of this system are seen in Figure 5.

Figure 5. "The grading system fosters collaboration and collegiality among students."



One might reasonably question the impact of such a change on numeric performance on course tests, and the pass rate and USMLE Step 1 scores. I am pleased to report that all courses report that mean scores for final grades are the same or higher for the class, that the failure rate overall is not significantly different, and that USMLE Step 1 scores improved. USMLE Step 1 scores for the first two classes to have Pass-Fail-Honors grades have risen from the past level of at or slightly below the national mean, to five to seven points higher than the national mean with first time failure rates significantly below the national mean. There appears to be one exception to these positive results, and that is the first Anatomy examination, especially the Practical Examination. This exception appears to be corrected by the end of Anatomy. The cause of this apparent difficulty in adaptation to medical school is currently under study.

The opinion of our third and fourth year students regarding the applicability of the basic science curriculum in preparation for USMLE Step 1, as well as their clinical clerkships, can be

seen in Figures 5.A and B, respectively. There is strong agreement that the basic science curriculum as delivered is effective in preparation for USMLE Step 1 and the clinical clerkships.

Figure 5.A. “The didactic courses during the first 2 years helped to prepare me for USMLE Step 1.”

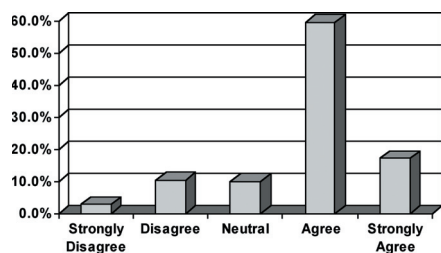
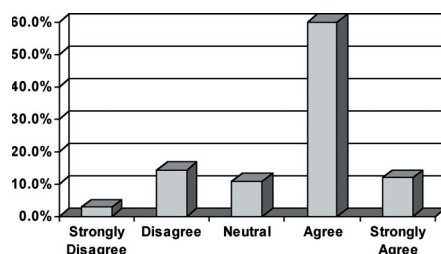


Figure 5.B. “The didactic courses during the first 2 years helped to prepare me for clinical clerkships.”

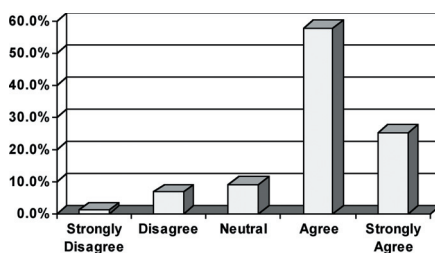


The faculty and students have taken on the task of reinvigorating our community’s commitment to professionalism. This has taken the form of a completely revised Jefferson Honor Code, incorporating the Shared Code of Professional Values between faculty and students into an expanded view of the Code. The faculty have recently espoused The Code, and restructured the committee responsible for fostering professionalism on the campus, energizing the community in this pivotal dimension of our core competencies.

The effectiveness of the curricular impact of these actions is reflected in the students’ impres-

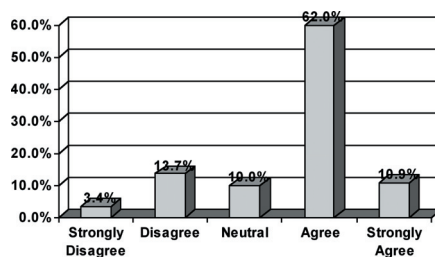
sions of instruction and exposure to these core topics. As can be seen in Figure 6, the students strongly agree that these topics are appropriately interwoven in the curriculum.

Figure 6. “There is sufficient time devoted to instruction in/exposure to ethics and professionalism.”



Turning to the clinical phase of education, similar positive results can be seen, with some notable exceptions. Figure 7 demonstrates that Jefferson’s network of affiliated academic teaching hospital partners delivers a range of clinical experience that is felt to be consistent across rotations. This is the rich clinical educational environment for which Jefferson is well known.

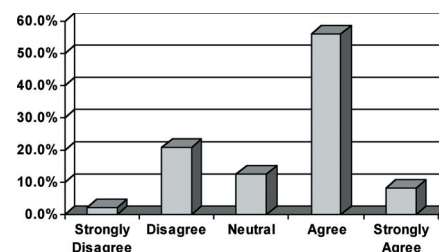
Figure 7. “There is an acceptable amount of variation across clerkship sites with respect to clinical experience”



The major challenge facing us in the education of our students is the time and effort of the clinical faculty during clinical clerkships. Faculty, both full time and volunteer, at both the downtown university hospital as well as our affiliated teaching institutions, are pressured with their clinical

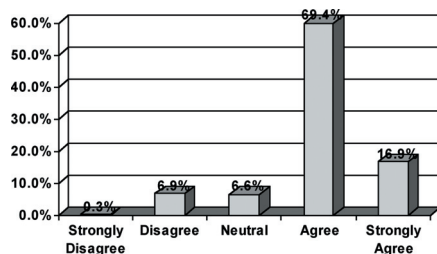
responsibilities, and have less time available for the kind of bedside teaching that produces outstanding young clinicians. Figure 8 demonstrates that a significant portion of the class (~22%) feel that at least on some clinical rotations, teaching is not what they expect, or have experienced on other rotations. Due to the nature of the survey, we cannot ascertain whether this concern is related to a single specialty, or a single institution, or whether it is a generalized phenomena. Further study is required to understand, and rectify this concern. However, we must pay particular attention to faculty development and faculty involvement in direct teaching in the clinical years of training.

Figure 8. “I had appropriate and adequate clinical observation and instruction from attendings.”



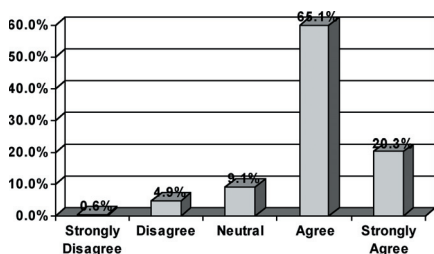
In contrast, resident teaching and supervision is viewed more positively. Figure 9 demonstrates that nearly 90% of students responded positively (and only 7% responded negatively) to the degree of clinical supervision and instruction from residents. This had been a challenge in the past, and “teaching residents to teach and evaluate” provided at all our clinical teaching hospital settings has enhanced our residents’ capacity and commitment to teach our medical students.

Figure 9. "I had appropriate and adequate clinical observation and instruction from residents."



Overall, the clinical phase of education remains highly rated. Indeed, over 90% of the class were satisfied or highly satisfied with their clinical training. Only 5.5% were dissatisfied with their clinical training (see Figure 10.).

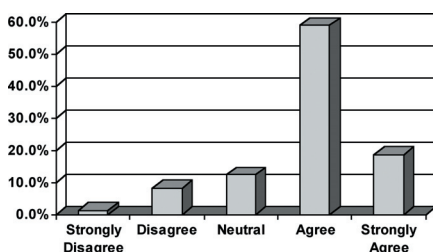
Figure 10. "Overall, I am satisfied with the clinical training I received."



Thus, while much progress has been made in enhancing the clinical phase of education, we must pay particular attention to faculty development and faculty involvement in direct teaching in the clinical years of training.

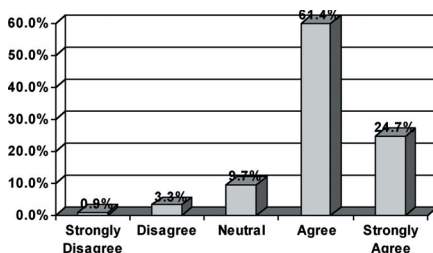
Finally, five years ago we set out to enhance the culture of the student body, to enhance their sense of ownership and participation in the College, and to foster closer relationships among member of each class, and the school in general. Figure 11 gives us some insight into our degree of success with this goal.

Figure 11. "Jefferson provides opportunities to generate social capital and unity amongst classmates and between classes" (e.g., through events, extracurriculars, social gatherings)



As can be seen above (Figure 11.), the vast majority of students respond positively to this statement, with fewer than 10% responding negatively. This sense of community extends to leadership development, and the opportunity to lead in a professional area of their choosing. Figure 12 demonstrates that ~90% of students feel that they have the opportunity for leadership at Jefferson. This sense of involvement, of opportunity to lead, is consistent with our personal observations of students taking on self directed challenges, fulfilling aspirations for leadership and to make positive contributions to our community, our educational programs, the patients we serve, and each other.

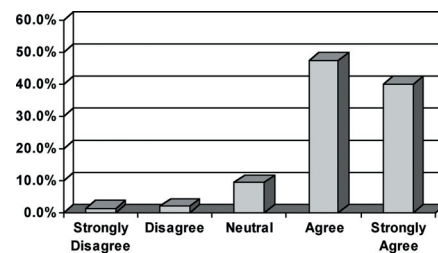
Figure 12. "I feel that I have the opportunity to be a leader in the Jefferson community if I so choose."



The most exciting outcome of this esprit d'corp is that our students are now our best re-

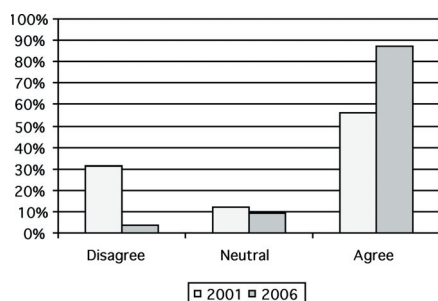
cruiters. As can be seen in Figure 13, approximately 90% of our students would encourage others to attend Jefferson. What is more striking is the comparison in responses of the student body in 2001 with those in 2006 to the same question. In 2001, 31% responded negatively to that question (disagree or strongly disagree) while in 2006, only 3% (approximately five students per class of those who answered the questionnaire) had a negative response, whereas the positive responses moved from 56 to 88%, with fully 40% strongly agreeing with that statement. Clearly the efforts of the faculty and students have borne fruit.

Figure 13.A. "I would encourage others to attend Jefferson."



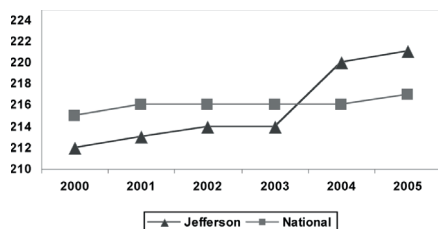
Have these positive reactions to the curriculum been translated into improved educational outcomes? Since outcomes measurement is in its infancy during the training years (there are no patient outcomes attributable to student actions), we must rely on the few standardized examinations that we have to assess the impact of curricular enhancement. USMLE Step 1 performance is one such measure.

Figure 13.B. "I would encourage others to attend Jefferson." 2001-2006 Comparison.



As can be seen in Figure 14, Jefferson's mean performance was consistently at or slightly below the mean for the national cohort until the first class with the new curriculum and grading system finished their second year. In that year the USMLE performance for Jefferson crossed above the national cohort mean, a performance repeated in this past year. Furthermore, the first-time taker failure rate dropped, and remains below the national rate (data not shown).

Figure 14. USMLE Step 1 Scores, Jefferson versus National Mean.



What about admission parameters? Total applicants have continued to rise from a nadir of 7,045 in 2003 to 7,702 in 2006. This coincides with the national nadir in applicant pool, and the gradual rise in total applicants over the past three years. All indications thus far this year are that the pool will continue to expand. As over the past 15 years, between one in four and one in

five of all US applicants to allopathic medical schools applies to Jefferson.

Matriculant academic preparedness parameters continue to demonstrate positive trends. Figures 15 and 16 demonstrate MCAT and Grade Point Average trends for the past eight years.

Figure 15. MCAT Verbal and Biologic Science Scores, 1999-2006.

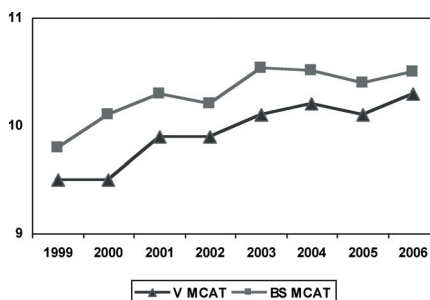
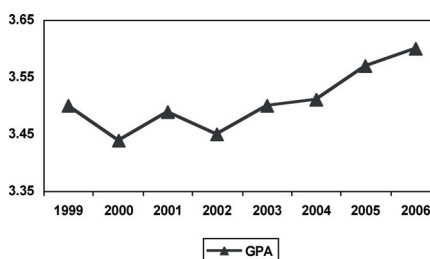


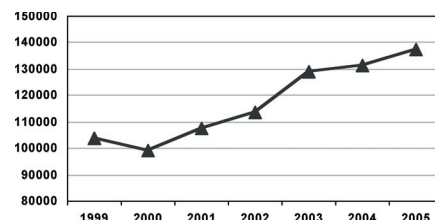
Figure 16. Undergraduate Grade Point Average (GPA).



Of major continuing concern is the indebtedness of our medical students. In 1999, 61.1% of our students graduated with debt loads in excess of \$100,000. In 2005 that percentage is 78.5%. The average debt of those who have debt has risen from \$104,010 in 1999, to \$131,171 in 2005 (see Figure 17). Of major concern is the influence of this burden on the decision to pursue medical careers on the part of college students, as well as on the specialty choice of graduates of our residency programs. This is most concerning when one considers the impending crisis

in the specialties of General Internal Medicine, Family Medicine, General Pediatrics, and also in General Obstetrics and Gynecology, General Surgery, and General Psychiatry.

Figure 17. Average indebtedness of Jefferson Medical College Graduates with debt.



This trend is likely to be exacerbated over the next few years, due to the more rapid escalation of undergraduate school tuitions. While only two medical schools currently have tuitions in excess of \$40,000 per year, numerous selective undergraduate institutions have raised their tuition in excess of \$40,000. Thus, more students will enter medical school with significant debt, increasing the total required to finance a complete medical education.

With noticeable improvements in student morale and satisfaction with the educational experience well in hand, the administration and faculty have recently begun to direct attention to policies and practices which impact academic productivity and morale of the faculty. While the faculty has faced many challenges, their hard work and increased productivity have overcome most, if not all, of them. Faculty morale, as measured by surveys of the faculty over the past several years, has improved. This trend is concurrent with the faculty, the department chairs, the com-

mittees, the professorial faculty advisory committee, and the administration taking on the tough issues affecting the faculty.

Figure 18.A. Selected Faculty Satisfaction Survey Questions and Responses, 2002-2006.

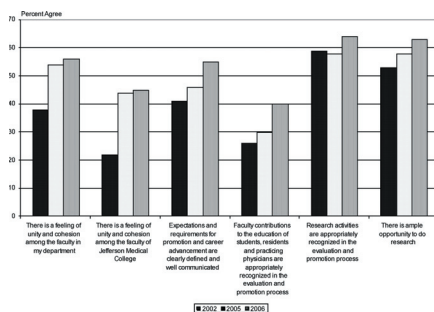
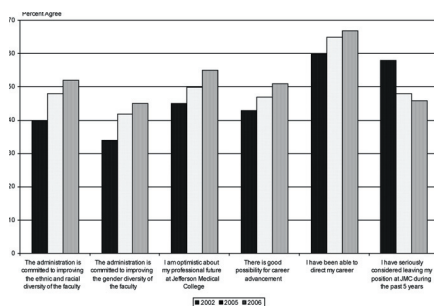


Figure 18.B. Selected Faculty Satisfaction Survey Questions and Responses, 2002-2006.



One of the important issues identified by the faculty as being of high importance to morale and retention has been the faculty advancement system, in particular for faculty involved in clinical service and education. Advancement is closely linked to the issues of tenure in the tenure tracks and faculty security in the non-tenure tracks.

Under the leadership of Howard Weitz MD, Professor of Medicine, a committee of faculty and administrators examined the questions of tenure for research faculty and long term contracting for clinical educator faculty. After extensive research, includ-

ing surveys of other institutions, a recommendation to revise the current tenure system was made to the administration, posed to the Executive Council, and passed. Tenure eligibility was defined at the Associate Professor level, limits for time in rank were established (with extensions possible for child rearing, family or personal illnesses, and other important life events), and the appropriate changes in the JMC Bylaws were made to facilitate the accomplishment of these changes. A University Tenure Committee was formed, and policies and procedures were developed and approved by Executive Council, SAAC, and the Board.

During the process of formalizing the reform of the Tenure System at Jefferson, a pivotal recommendation was made to the Executive Council by the Tenure Committee. Specifically, the recommendation was made that "Master Educators" (defined broadly as outstanding educators who have achieved a national or international reputation in medical education) should be eligible for Tenure. This concept was approved by the Executive Council, and in July 2006 the Bylaws of JMC were modified to accept more than one Tenure Track (required if a member of the Clinical and Educational Scholarship Track were to be awarded Tenure). The work plan for the Tenure Committee for 2006-2007 includes the development of criteria for Tenure in the Clinical and Educational Scholarship Track.

If this is accomplished and approved, the Clinical and Educational Scholarship Track will

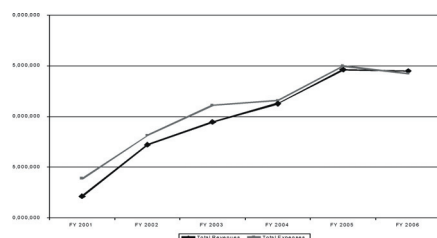
become a Tenure Eligible Track, and the faculty in that track will have the contracting benefits of a tenure track as defined in the Bylaws. This will address many of the concerns of the faculty in the Clinical and Educational Scholarship Track regarding longer term contracts (even if Tenure is not achieved) and will provide additional incentives for the faculty to achieve promotion through their academic as well as clinical and educational endeavors.

Figures 18.A and B indicate improving faculty morale, and positive response of the faculty to not only the changes in the faculty Tenure and promotions systems, but also to enhancements of the physical facilities, salary growth, and the optimism intrinsic in the strategic plan. The research faculty is competing effectively in this very difficult grant environment, the college and university is investing in targeted growth in research programs, educational facilities and programs, and plans to build a new ambulatory clinical facility where the latest in technology and clinical delivery infrastructure will enhance our ability to deliver superior, innovative patient care. The upcoming implementation of the electronic health record in JUP heralds the opportunity to refine care delivery systems, enhance quality, improve efficiency, and also revise and enhance business practices. While the environment in which we practice is most challenging, positive faculty morale and stable faculty productivity are essential to the success of the strategic plan. More important, however, it is most consistent with our institutional values to

respect and value the work of the faculty. For only when the faculty are respected and valued are they free to respect, value and uplift the patients, students, residents, graduate students and colleagues whom we serve.

The financial performance of the medical college over the past 6 years can be seen in Figure 19. As can be seen in this figure, the revenue of the college has risen by approximately \$65 million dollars over the past six years, with a plateau over 2005 to 2006. This plateau was due to several factors. There was a moderate reduction in grant revenue in 2005, largely due to loss of faculty from the Cancer Center when Dr. Carlo Croce left Jefferson for Ohio State University. Grant revenue at Jefferson, as at many medical schools, was flat in 2006 (see Figure 21). However, the grant revenue decrease was offset by increases in other sources including tuition, and clinical and hospital-related revenue.

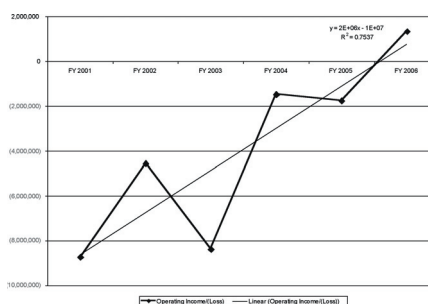
Figure 19. Total Revenue and Total Expenses, Actual, Jefferson Medical College.



For the first time since the separation of the University from the Hospital, JMC demonstrated a surplus of revenue over expenses. This has been a six year journey, accomplished through the introduction of mission based revenue allocation, financial discipline at both the dean's office as well as

departmental levels, and transparency of information between the dean's office and the chairs. Figure 20 demonstrates the actual operating performance of the medical school, with positive operating variances in five of the last six years, and each year over the past three years, when compared with budgeted performance (data not shown). The FY 2006 surplus on operations of \$1.3 million is due to the hard work and determination of the college's faculty and leadership to manage expenses, the positive contribution of JUP over budget in Dean's Tax Revenue, and the "at risk" pool (performance driven) provided by TJUH. In addition, excellent management of the fringe benefit costs by University Administration produced significant return of charged benefit costs, which made a significant contribution to the operational performance. As can be seen in Figure 20, this positive performance in 2006 is not merely an anomaly, but rather the result of half a decade of work on the part of the faculty, chairs, and administration. Challenges remain to consolidate and maintain positive financial performance in the future.

Figure 20 . Financial Operational Performance, Jefferson Medical College, Actual and Trend Line (linear calculation), including R2



The research efforts of the faculty remain strong, and as the Cancer Center completes its first and second phase of recruitment, coupled with ongoing recruitment in all of the basic science departments as well as the clinical departments, especially in the strategically focused areas of Cancer, Neurosciences, Cardiovascular Disease and Vascular Biology, and Infection and Immunity, I anticipate that the upward trend in research funding (as a proxy for the quality of our peer reviewed research efforts) will continue (see Figure 21).

Figure 21. Total Grant Revenue, Direct and Indirect, Jefferson Medical College

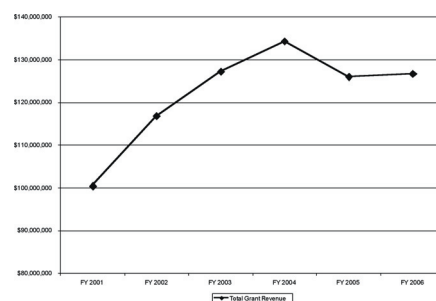
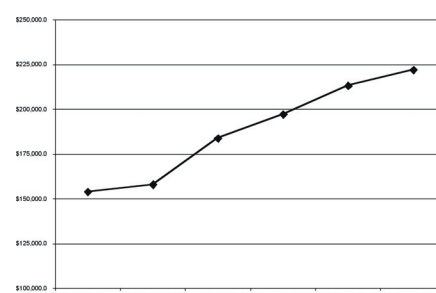


Figure 22. Annual Revenue, Jefferson University Physicians.



The productivity of the clinical faculty continues to grow. Over the past six years the revenue produced by the clinical faculty has increased by nearly 50% over baseline. This is even more remarkable in that the majority of that increase has taken place over

the past four years. This growth is due both to the productivity of the faculty, as well as dramatic enhancements in the administrative infrastructure functioning in JUP. All parameters of administrative and billing efficiency within JUP administration and the billing function are at or better than national practice plan benchmarks, and many are “best in class.” This expansion of clinical service provision has permitted enhanced salary support for the clinical faculty from clinical revenue. Of concern, however, is the challenge noted in Figure 8. If clinical faculty are pressed

in their clinical service responsibilities, we will (and may already be seeing) pressure on their educational efforts, especially in the clinical setting.

Summary

As can be seen, the work of the faculty, students, and administration of Jefferson Medical College has led to a very productive year. We have made great strides over the past seven years. It is our challenge, and our opportunity to continue this momentum as we, as part of a broader university, embark on expansion and growth. It is our

loyalty to Jefferson’s core values and our steadfast dedication to our shared core purposes, that assure not only continuing success in our current initiatives, but also the new successes of our bright future together.

Thomas J. Nasca, MD, MACP

Professor of Medicine and Physiology

Dean, Jefferson Medical College

Senior Vice President, Thomas Jefferson University

President, Jefferson University Physicians

Academic Year 2005 - 2006



Faculty Honors

The Christian R. and Mary F. Lindback Award for Distinguished Teaching.

William Kocher, MD, Clinical Assistant Professor of Pathology, Anatomy and Cell Biology

Dean's Award for Distinguished Teaching.

Dale Berg, MD, Associate Professor of Medicine

Blockley-Osler/Dean's Teaching Award for Excellence in Teaching. To a faculty member of a Jefferson-Affiliated Hospital.

Anthony Macchiavelli, MD, Clinical Instructor of Medicine, Methodist Hospital

The Leon A. Peris Memorial Award. To a member of the volunteer faculty for excellence in clinical teaching and superior patient care.

Michael Manko, MD, Clinical Professor of Medicine, Lankenau Hospital

The Leonard Tow Humanism in Medicine Award presented by The Arnold P. Gold Foundation. To an outstanding faculty member demonstrating exemplary compassion in doctor/patient relations.

Robert L. Perkel, MD, Clinical Professor of Family Medicine

Portrait

Salvatore Mangione, MD, Clinical Associate Professor of Medicine, presented by the Class of 2006 and friends and colleagues, painted by Dean Larson.

Medical College

The Medical College celebrated its 182nd anniversary.

New Divisions/Departments

Department of Cancer Biology

Department of Medical Oncology

Division of Cerebrovascular Surgery and Interventional Neuroradiology name changed to Division of Neurovascular Surgery and Endovascular Neurosurgery

New Appointments

Department Chairs

Richard C. Pestell, MD, Chair for the Department of Cancer Biology

Commencement

The 182nd Commencement Exercises were held on June 2 at the Kimmell Performing Arts Center. Medicine degrees were awarded to 213 candidates, two of whom were simultaneously awarded a Doctor of Philosophy degree.

Honorary Degrees

Honorary degrees of Doctor of Science were bestowed upon Joseph Edward Murray, ScD, MD, a winner of the Nobel Prize in 1990 for his work in developing lifesaving organ and tissue transplant techniques, and to Paul E. Farmer, MD, PhD, executive vice president for Partners in Health.



Administrative Staff

Jefferson Medical College

Thomas J. Nasca, MD, MACP, *Dean JMC, Senior Vice President Thomas Jefferson University, President JUP*

Clara A. Callahan, MD, *The Lillian H. Brent Dean of Students and Admissions*

Timothy P. Brigham, PhD, *Chief of Staff and Senior Associate Dean, Organizational Development*

John Ogunkye, MS, *Chief Operating Officer*

David L. Paskin, MD, *Senior Associate Dean, Academic Affairs/Graduate Medical Education and Affiliations*

Susan L. Rattner, MD, MS, FACP, *Senior Associate Dean, Academic Affairs/Undergraduate Medical Education*

Joseph L. Seltzer, MD, *Senior Associate Dean, Academic Affairs/Continuing Medical Education, and Faculty and Alumni Affairs*

Edward B. Christian, PhD, *Associate Dean, Diversity and Minority Affairs*

Karen M. Glaser, PhD, *Associate Dean, Academic Affairs/Undergraduate Medical Education*

Phillip J. Marone, MD, *Associate Dean, Alumni Relations, Executive Director of the Alumni Association*

Karen D. Novielli, MD, *Associate Dean, Faculty Affairs and Faculty Development*

Charles A. Pohl, MD, *Associate Dean, Student Affairs and Career Counseling*

Cynthia Silber, MD, *Associate Dean, Academic Affairs/Graduate Medical Education*

Kristen L. DeSimone, MD, *Assistant Dean, Student Affairs and Career Counseling*

Steven K. Herrine, MD, *Assistant Dean, Academic Affairs/Undergraduate Medical Education*

Bernard L. Lopez, MD, *Assistant Dean, Student Affairs and Career Counseling*

Luz Ortiz, MA, *Assistant Dean, Diversity and Minority Affairs*

John M. Spandorfer, MD, *Assistant Dean, Student Affairs and Career Counseling*

Administrative Staff at Affiliated Institutions

Brajesh Agarwal, MD, *Director, Undergraduate Medical Education, Department of Veterans Affairs*

Jeremy Barnett, MD, *Designated Institute Official, Frankford Hospital*

John G. Bertolino, MD, *Director, Undergraduate Medical Education, Latrobe Area Hospital*

James F. Burke, MD, *Assistant Dean, Medical Education, Mainline Health*

Anthony J. DiMarino, Jr., MD, *Director, Undergraduate Medical Education, Underwood Memorial Hospital*

Douglas McGee, DO, *Assistant Dean, Medical Education, Albert Einstein Medical Center*

Linda Famiglio, MD, *Assistant Dean, Medical Education, Geisinger Medical Center*

Christopher Formal, MD, *Director, Undergraduate Medical Education, Magee Rehabilitation Hospital*

Irv Freeman, PhD, *Assistant Dean, Medical Education, Mercy Hospital of Pittsburgh*

David George, MD, *Director, Undergraduate Medical Education, Reading Hospital and Medical Center*

Edward Jaeger, MD, *Director, Undergraduate Medical Education, Wills Eye Hospital*

Gerard Klinzing, MD, *Medical Education, Bryn Mawr Hospital*

Martin E. Koutcher, MD, *Director, Undergraduate Medical Education, Methodist Hospital*

Brian W. Little, MD, *Assistant Dean, Christiana Care*

Roy Proujansky, MD, *Associate Dean, Chief Executive of the Practice, Nemours Children's Clinic - Wilmington/
A.I. duPont Hospital for Children*

Steven Selbst, MD, *Vice Chair, Pediatrics, Nemours Children's Clinic – Wilmington/A.I. duPont Hospital for
Children*

Mary Willard, MD, *Director, Undergraduate Medical Education, Virtua Health*



Department Chairs

Anesthesiology

Biochemistry & Molecular Biology

Cancer Biology

Dermatology & Cutaneous Biology

Emergency Medicine

Family & Community Medicine

Health Policy

Medical Oncology

Medicine

Microbiology & Immunology

Neurology

Neurosurgery

Obstetrics & Gynecology

Ophthalmology

Orthopaedic Surgery

Otolaryngology/Head & Neck Surgery

Pathology

Pediatrics

Pharmacology and Experimental Therapeutics

Physiology

Psychiatry & Human Behavior

Radiation Oncology

Radiology

Rehabilitation Medicine

Surgery

Urology

Zvi Grunwald, MD

Jeffrey Benovic, PhD

Richard G. Pestell, MD, PhD

Jouni J. Uitto, MD, PhD

Theodore A. Christopher, MD

Richard C. Wender, MD

David B. Nash, MD, MBA

Neal Flomenberg, MD (Acting Chair)

Arthur M. Feldman, MD

Timothy Manser, PhD

Abdolmohamad Rostami, MD, PhD

Robert H. Rosenwasser, MD

Louis Weinstein, MD

William S. Tasman, MD

Richard H. Rothman, MD, PhD

William M. Keane, MD

Fred Gorstein, MD

Roy Proujansky, MD

Scott Waldman, MD, PhD

Marion J. Siegman, PhD

Michael J. Vergare, MD

Walter J. Curran, Jr., MD

Vijay M. Rao, MD

John L. Melvin, M.D.

Charles J. Yeo, MD

Leonard G. Gomella, MD

Professorial Faculty



The Advisory Committee Officers

Chairman	Sue Menko, PhD
Chairman-Elect	Gregory Kane, MD
Secretary	Richard Schmidt, PhD
Secretary-Elect	James Studdiford, MD

Advisory Committee Members

2004 - 2006	Jay Greenspan, MD Richard Horn, PhD Jay Rothstein, PhD Peter Sharkey, MD
2005 - 2007	Rosario Scalia, MD, PhD Timothy Manser, MD Steve Herrine, MD Michael Sperling, MD Janice Nevin, MD

Fred Laucius, MD, Past Chairman Advisory Committee 2004 - 2005

Representative to the Executive Council

Clinical Science	David Andrews, MD	2005 - 2007
Basic Science	Leonard Eisenman, PhD	2004 - 2006

Representatives to the Committee on Committees

Clinical Science	Howard Rabinowitz, MD	2005 - 2007
Basic Science	Catherine Calkins, PhD	2004 - 2006



Office of Faculty Affairs

The Office of Faculty Affairs (OFA), established in 2001 by Dean Nasca, supports the skill development and career advancement of Jefferson faculty, promotes an academic culture where faculty collegiality, collaboration and scholarly inquiry can thrive and supports the administrative activities and programs central to faculty participation in the operations and governance of the Medical College. The Office of Faculty Affairs accomplishes its mission through its activities and programs, support of the Standing Committees of the Medical College and through its advisory role in the formation and revision of policies affecting the Medical College faculty.

OFA Programs/Activities

Faculty Development

Sixty seven faculty development sessions, representing 127 hours of instruction, were provided to Jefferson faculty in 2005-2006. The Faculty Development Program was organized into five general topic areas: effective teaching, research skills, professional development, information management and use of instructional technology. Table 1 provides an overview of the specific sessions presented. Faculty participation in the programs con-

tinues to be strong with 255 University faculty participating in at least one session in 2005-2006 and 704 University Faculty participating in the program since its inception. Table 2 provides an overview of participation in each topic area and the evaluations of each topic area for the 2005-2006 academic year.

Additional Web-based, self-directed learning modules for faculty development in the program area of effective teaching were created providing a total of 12 of these modules available for use by faculty. These self-directed learning modules have been well-received by faculty and allow faculty to access faculty development programs at a time that is convenient for them. For academic year 2005-2006, 174 faculty accessed the self-directed learning modules. To date, faculty have logged 326 faculty development credit hours through the self-directed learning modules. These modules can be found at the faculty development Web site, www.jefferson.edu/jmc/faculty/fac_dev.

The individual faculty development sessions continue to be provided through the generous commitment of time and talent by Jefferson faculty, and the staffs of the Scott Memorial Li-

brary and the Office of Research Administration.

New Faculty Orientation

The Office of Faculty Affairs provides a two-part orientation program for new faculty that consists of 1) an individual session with the faculty member to welcome the faculty member, provide individualized career guidance, and familiarize the faculty member with relevant policies and resources and 2) a full day orientation to the Jefferson community and its resources. This full day orientation program is given twice each year by members of the Dean's staff. For academic year 2005-2006, the Office of Faculty Affairs provided individual orientation sessions to 70 of the 82 new faculty hires. Fifty-six new faculty participated in the full-day orientation program.

Faculty Resignations

The Office of Faculty Affairs invites all faculty who voluntarily resign their faculty appointments for an exit interview. Aggregate data from these confidential interviews provide the administration with feedback that is used to enhance Jefferson's ability to recruit and retain excellent faculty. Seventy-two faculty (~10%) left Jefferson during the 2005-2006 academic year, of which, 40

resigned their appointment for reasons other than retirement. This turnover rate is consistent with national trends of eight to 11% for academic medical centers in recent years. Twenty-five of the 40 faculty who resigned were interviewed.

Faculty Annual Performance Review

The Office of Faculty Affairs assists the Department Chairs to provide and track the mandated annual performance reviews for faculty. Compliance with this important task has increased significantly over the past few years with 19 of 23 departments completing annual performance reviews in the past two years, and 75% of faculty reporting that they received annual performance reviews in the 2004 and 2006 faculty satisfaction survey. This is up from 50% of faculty reporting that they received annual performance reviews in the 2002 faculty satisfaction survey.

Faculty Mentoring

The Office of Faculty Affairs has been working with the Department Chairs to provide support for the mentoring of junior faculty at the department level. Each Department Chair has been asked to appoint a liaison to the Office of Faculty Affairs. The liaison is responsible for developing, implementing and evaluating the department (or division) mentoring plan with assistance from the Office of Faculty Affairs. This past year, several departments have implemented mentoring programs with the goal of helping junior faculty succeed in their academic roles. In addition, an informal month-

ly meeting is held for women faculty to assist with mentoring and leadership development.

Faculty Awards

The Dean's Citation for the Advancement of Education at Jefferson Medical College and the Dean's Citation for Faculty Mentoring were presented to 20 faculty and eight faculty, respectively, at the Dean's Annual Reception for Faculty Excellence in Education and Mentoring held at the Union League on May 24, 2006. The names of the 2005-2006 award recipients are listed in Table 3. Nominations for the award are made by the Department Chairs and prior award recipients to the Educational Advisory Committee of the Office of Faculty Affairs which reviews the nominations and makes recommendations to the Dean.

Dispute Resolution

The University Faculty Ombudsperson, Stephen Weinstein, Ph.D., and the Associate Dean for Faculty Affairs and Faculty Development, Karen Novielli, M.D., are available to assist faculty with the informal resolution of disputes and conflicts. Informal assistance is provided in addition to the formal grievance process available to faculty.

Faculty Satisfaction Survey

A Web-based faculty satisfaction survey was administered to faculty in January, 2006. Faculty participation in the survey process was 71%! Results of the 2006, 2004 and the 2002 faculty satisfaction surveys are available to all faculty on pulse (under My Organizations, choose JMC faculty). Areas of significant improvement on the survey

include: percent of faculty who receive an annual performance review, the percent who find the annual performance review valuable; and the percent of faculty who feel there is unity and collegiality among the faculty both in their department and at the college level. Results of the Faculty Satisfaction Survey will be used to inform multiple initiatives related to improving the work-life of faculty including improving mentoring of faculty, improving the feedback process for faculty and improving the processes which reward faculty for their work.

Faculty Policies

Faculty Appointment and Promotions Guidelines

Upon the recommendation and approval of the Executive Council, tracks and criteria for faculty appointment and promotion were revised to better reflect and reward the work of the faculty while promoting scholarship, leadership and excellence in teaching, clinical care and research. The new tracks are the Academic Investigator Track (tenure eligible), the Research Track, the Clinical and Educational Scholarship Track and the Clinician Educator Track. Educational sessions were held with each department and through the Faculty Development Program to inform the faculty about the requirements for appointment and promotion in these tracks. One important addition to the assessment of credentials for appointment and promotion is the Jefferson Teaching Portfolio which will be required of faculty in all but the research track.

Tenure Policy

The tenure policy and the processes for awarding tenure were reviewed and revised with input from an advisory committee to the Dean composed of faculty, chairs and administration. Changes were adopted to assist the university's efforts to recruit and retain outstanding research faculty. Key areas of revision are the ability to award tenure at the Associate Professor level, expansion of the probationary period for assistant professors in a tenure track to eight years, the establishment of a tenure committee to recommend the awarding of tenure and to conduct post-tenure reviews of tenured faculty. The Tenure Committee met monthly to establish criteria for tenure and the process for reviewing faculty applications for tenure.

Faculty Resources

Faculty Handbook

The *Faculty Handbook*, which is accessible via the web at the faculty site, www.jefferson.edu/jmc/faculty, has been updated to be more user friendly and to contain more relevant information for faculty. It has also been converted to a PDF format. The *Faculty Handbook* contains updat-

ed faculty policies as well as information about other resources available to faculty.

Faculty Bylaws

Updated *Bylaws*, reflecting recent changes to the tenure policy and the formation of new departments, are accessible at the faculty Web page (see above).

Faculty Web Site

The faculty Web site, www.jefferson.edu/jmc/faculty, was revised to provide improved access to relevant information for faculty.

Faculty Committee Initiatives

Education Advisory Committee

The Education Advisory Committee serves in an advisory function to the OFA around initiatives that improve and reward the teaching mission of Jefferson faculty including the Faculty Development Program, the evaluation of teaching and rewarding teaching. Over the past year, the committee was instrumental in the development of the Jefferson Teaching Portfolio and in educating the broader community about the importance of educational scholarship and establishing criteria for its assessment and inclusion in criteria for appointment and promotion.

Standing Committee Support

The Office of Faculty Affairs provides administrative support to the following Committees and Standing Committees of the Medical College: Committee on Committees, Professorial Faculty Advisory Committee, meetings of the Professorial and General Faculty, Committee on Faculty Affairs, Committee on Bylaws and Rules, Committee on Departmental Review, and the Nominating Committee for the Professorial Faculty. Reports of these committees can be found in the document, *Summary Reports of the Standing Committees of the Medical College*.

Agenda items for the meetings of the General and Professorial Faculty meetings included Professionalism and the Honor Code, New Appointment and Promotion Tracks and Guidelines, Tenure Policy, the upcoming LCME visit, New IT initiatives, the School of Pharmacy and the Strategic Planning Process.

Karen D. Novielli, M.D.

Associate Dean for Faculty Affairs and Faculty Development

Table 1
Faculty Development Sessions for 2005 - 2006

Instructional Technology

- Microsoft Excel and Spreadsheet Basics
- Intermediate Photoshop
- Digital Imaging/Photography
- Photoshop Basics
- PowerPoint 1: Getting Started with PowerPoint
- PowerPoint 2: Working Efficiently with PowerPoint and Other MS Office Products
- PowerPoint 3: Formatting Graphics and Slides in PowerPoint
- PowerPoint 4: Animating Your PowerPoint Presentation
- PowerPoint 5: PowerPoint Presentation Pizzazz

Information Management

- Info Ed: SPIN, GENIUS & SMARTS Systems
- Find it Fast: Scott Memorial Library Basics for Busy Jeffersonians
- Introduction to OVID Medline
- Bibliographic Management: Introduction to RefWorks
- Copyright and Fair Use Guidelines
- Using Scopus and Internet Search Engines Effectively
- Professional PubMed Searching
- Advanced OVID Medline
- Searching Drug Resources
- Scholarly Communication and Collaboration Online Options

Effective Teaching

- Introduction to Problem-Based Learning and PBL Problem Writing
- Essentials of Effective Lecturing

- Interactive Techniques for Lecturing
- Best Practice in Lecturing
- How to and Best Practices for Syllabus Preparation
- Using the Intranet to Facilitate Learning
- Peer Review of Lecture, Syllabi and Web-Based Learning Aids
- A How to Guide for Constructing High Quality Multiple-Choice Questions for the Basic and Clinical Sciences
- Rewarding Contributions to Education through Promotion: The Educational Portfolio and Educational Scholarship
- Can We Teach Professionalism?
- Teaching, Providing Feedback, and Evaluating Students in the Clinical Setting
- Tips for Delivering an Effective Lecture
- Teaching in Small Groups
- Team Learning: Applications for the Classroom and Clinical Setting
- Dean's Reception and Tour of the Rectors Clinical Skills Center (Optional Physical Exam Skills Mini-modules)
- Evaluating Performance: Overview of Clinical Grading at Jefferson

- Can We Teach Professionalism?
- Teaching, Providing Feedback, and Evaluating Students in the Clinical Setting
- Tips for Delivering an Effective Lecture
- Teaching in Small Groups
- Team Learning: Applications for the Classroom and Clinical Setting
- Dean's Reception and Tour of the Rectors Clinical Skills Center (Optional Physical Exam Skills Mini-modules)
- Evaluating Performance: Overview of Clinical Grading at Jefferson

Building Research Skills

- Introduction to Sponsored Research
- Grant Writing Seminar (11 weeks)
- Terms and Conditions of Research Grants and Contracts

- Budgeting on Grant Proposals
- Ethical Conduct of Research
- Use of Animals in Research
- The Physician and Scientist Perspective on Translation via Technology Transfer
- Private and Foundation Funding Opportunities for Biomedical Research
- The IRB and You: Preparing for a Successful Submission
- Clinical Trials Part 1: Laying the Foundation to Succeed in the Clinical Trial Enterprise
- Clinical Trials Part 2: Continuation of Laying the Foundation to Succeed in the Clinical Trial Enterprise
- Clinical Trials Part 3: Post-Award Management and Trial Closeout

Professional Development

- Presentation Skills Workshop
- Making Your Next Teaching Presentation Better than Your Last
- Organizational & Clinical Effectiveness: A Systems Thinking Point of View on Learning, Change, and Continuous Improvement
- Introduction to Mindfulness-Based Stress Reduction
- New JMC Guidelines for Promotion: An Overview
- Writing Clinical Review Articles
- Time Management Skills for Faculty
- How to Become Your Own Best Mentor
- Leading Teams Effectively
- The Jefferson Longitudinal Study of Medical Education: Tracking the Future

Table 2
2005 - 2006 Faculty Development Program Ratings

Faculty Development Program	Number of Participants	Percent of Participants Rating Content Good or Excellent	Percent of Participants Rating Content as Relevant to Faculty Development Needs
<i>Professional Development</i>	145	96	90
<i>Information Management</i>	77	100	95
<i>Effective Teaching</i>	170	88	89
<i>Instructional Technology</i>	53	94	92
<i>Research Skills</i>	102	89	93
<i>Web-based Modules</i>	174	87	88

Table 3
Faculty Award Recipients

Dean's Citation for Significant Contributions to the Advancement of Education at JMC	Dean's Citation for Faculty Mentoring at Jefferson
Arthur Allen, PhD, Biochemistry	Renato Baserga, MD, Microbiology
Enrica Arnaudo, MD, Neurology	R. Anthony Carabasi, MD, Surgery
Robert S. Bailey, Jr., MD, Ophthalmology	Murray J. Cohen, MD, Surgery
David Birk, PhD, Pathology	Jeffrey L. Miller, MD, Medicine
Matthew Burday, DO, Internal Medicine-Christiana Care	Victor Navarro, MD, Medicine
Kenneth Certa, MD, Psychiatry	Ernest Rosato, MD, Surgery
Robert M. Coben, MD, Medicine	Michael Sperling, MD, Neurology
Herbert Cohn, MD, Surgery	Kevin Sullivan, MD, Radiology
Deborah Consolini, MD, Pediatrics	
Andrew DeMichele, MD, Surgery	
Laurence Eisenlohr, PhD, VMD, Microbiology	
John Flynn, PhD, Physiology	
Kevin Hails, MD, Psychiatry – Albert Einstein Medical Center	
Alfred Kurtz, MD, Radiology	
David Loren, MD, Medicine	
James P. Loughran, MD, Internal Medicine – St. Francis Hospital in Wilmington	
Levon Nazarian, MD, Radiology	
Marc R. Rosen, MD, Otolaryngology	
Norman Rosenblum, MD, PhD, Ob/Gyn	
Rosario Scalia, MD, PhD, Physiology	



Office of Faculty Records

The Office of Faculty Records was established in June 2003 by Dean Nasca to implement additional oversight of the faculty appointments and promotions process.

The office supports the administration of the academic faculty appointments and promotions procedures, the verification procedure for faculty appointment and/or promotion and maintenance of accurate faculty records.

Table 1 on the following page depicts the faculty appointment and promotion process. Table 2 contains the Faculty Census as of July 2006.

Denise Fontana

Supervisor

Office of Faculty Records

Table 1

New Appointment and Promotion

Jefferson Medical College / Thomas Jefferson University Office of Faculty Records Flow Chart for New Appointment/Promotion

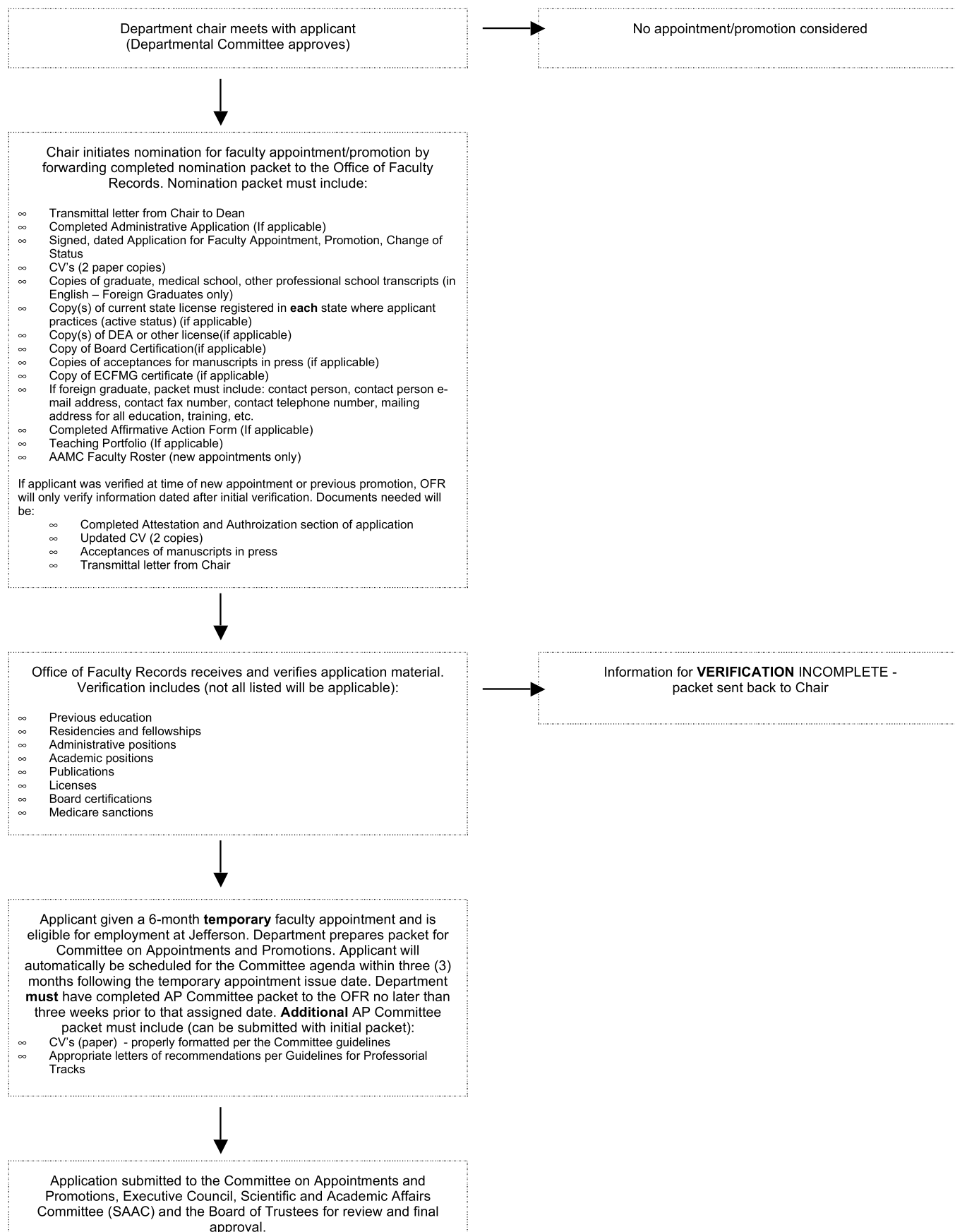


Table 2
Faculty Census

	Fully Salaried	Partly Salaried	Non-Salaried	Total
Professorial	301	8	555	864
General	398	17	1418	1833
Total	699	25	1973	2697
Basic Science	156	1	90	247
Clinical Science	534	24	1880	2438
Other	9		3	12
Total				
Professor	167	4	279	450
Associate Professor	134	4	276	414
Assistant Professor	277	9	730	1016
Instructor	121	8	688	817
Total	699	25	1973	2697
Women	200	13	392	605
Men	499	12	1581	2092
Total	699	25	1973	2697
Emeritii		Honorary		
3		357		

Thursday, October 12, 2006

Office of Admissions



The Office of Admissions supports the efforts of the Committee on Admissions, consisting of 36 faculty and three student members. The dedicated Committee members and first- and second-year students interviewed approximately 850 applicants this year. The Student Admissions Coordinators present an informational program, and first- and second-year students conduct tours of the campus (in addition to submitting written evaluations of each applicant) prior to the faculty interviews. Agreeing to serve on the Committee on Admissions represents an extraordinary commitment of time and effort unequalled by any other committee in this institution. The dedication of the members of this committee to the selection and recruitment of the best and the brightest students deserves the highest praise and the gratitude of the entire Jefferson community.

The number of applicants to medical school continued its upward trend for the third consecutive year. Nationally, 37,667 applications have been certified and submitted to AMCAS vs. 36,003 for the same time last year, a 4.6% increase. To date, Jefferson has received 7,789 ap-

plications compared to the 7,701 last year (1.1% increase).

Our “special programs” continue to attract significant interest. The Penn State Accelerated Program received 364 applications. This highly competitive program requires minimum SAT scores of 1440 (excluding the writing sample at this time) and rank in the top 10th percentile of their high school class for consideration. On February 15, 2006, we interviewed 92 highly accomplished candidates from 19 different states, Canada and Singapore. Eighty-seven percent of the applicants interviewed had SAT scores above 1500 and six with perfect SAT scores of 1600. Twenty-four students will join the entering class of 2006 this July after completing two or three years at Penn State.

The Physician Shortage Area Program (PSAP) attempts to identify, recruit, and matriculate applicants who agree to pursue a career in family medicine and to practice in a medically underserved area. This year we interviewed nine of the PSAP applicants who applied through AMCAS, accepted six for the program, and anticipate four will matriculate with the entering class of 2006.

The Delaware Institute for Medical Education and Research (DIMER) Program continues to flourish at Jefferson. Of the 78 applicants in the National Pool from the state of Delaware, 65 applied to Jefferson (52 from New Castle County, three from Sussex County and 10 from Kent County). We interviewed 39 applicants, accepted 28, and anticipate 18 matriculants (17 from New Castle, one from Sussex counties).

Our links with the Post Baccalaureate Pre-Health Programs at the University of Pennsylvania, Bryn Mawr College and Columbia University continue to attract highly qualified applicants who have chosen to change careers. This year’s matriculants include an artist, a computer systems analyst, a dancer and an electrical engineer.

The Medical Scholars Program with the University of Delaware, now in its thirteenth consecutive year, will matriculate four students for the 2006 entering class. This early linkage program, to date, has graduated 95 students from Jefferson Medical College. The dean of admissions was asked to join the Premedical Education Advisory Council at the University of Delaware this year.

For the entering class of 2006, the combined MD/PhD degree program between Jefferson Medical College and the Jefferson College of Graduate Studies received 130 AMCAS applications for our five fully funded MD/PhD spots. From the 89 completed applications, 37 candidates were selected to interview at both the graduate and medical schools, and nine offers of acceptance were made; we expect that four will matriculate with the entering class.

Class of 2010

The current first-year class will matriculate 255 students who reflect the diversity seen in matriculants over the past few years. At this date there are 97 colleges and universities represented. The first-year students are from 28 different states, D.C., Puerto Rico, the Philippines, Canada, and Ghana. Slightly more than 9% of the class is from groups identified as under-represented in medicine, and 31% represent nonwhite ethnic groups. Fifty-six percent of the class is female. The average age is 23 with a range from 19 to 38 years. The diversity in the class is evidenced by the number of students 25 years of age and older, 16%. We continue to encourage applications from students who are studying in this country with student visas who plan to return to their "home" countries to practice medicine.

International students

At the current time, we have a total of 31 students at Jefferson with student visas, (nine from Canada, six from Malaysia, and three from the United Kingdom, two from Ghana, Kenya and

Nigeria, and one each from the Bahamas, Brazil, Cyprus, India, Korea, Moldova, and Nepal.) A number of foreign students have indicated a desire to attend Jefferson, but have been unable to do so because of the financial limitations imposed. Foreign students are not eligible for federal- or state-subsidized loans and usually cannot obtain loans from U.S. banks to finance their education.

Recruitment Efforts

Attracting outstanding students continues to be the major thrust of the Office of Admissions. The Office hosted its fifth annual "Second Look" recruitment event on April 20, 2006. It was attended by 96 accepted applicants, 13 members of the Committee on Admissions, Dean Nasca and members of his staff, alumni and Jefferson students. On April 20, 2006, the morning's agenda included a welcome orientation by Clara Callahan, MD and an overview of Financial Aid and Student Records by Susan Batchelor and David Clawson. Drs. George Brainard, Paul Kolecki, William McNett, and Richard Schmidt were on hand to demonstrate the many learning resources and educational tools used at Jefferson in teaching the basic sciences and clinical skills, along with Martha Ankeny and Anthony Frisby. Dr. Phil Wolfson gave an overview of our curriculum and Dr. Lara Carson-Weinstein and Jefferson students provided an overview of the many community outreach opportunities available to Jefferson students. After lunch, applicants attended mini-workshops: surgical pro-

cedures, hosted by Dr. Philip Wolfson; emergency medicine patient care, demonstrated by Theodore Corbin; a tour of the Department of Orthopedics conducted by Michael Ciminiello, MD; cardiac catheterization demonstrated by Dr. Arnold Greenspon and his fellow; a tour of the neurological surgery area by Dr. Stavi Tjoumakaris; radiologic innovations were demonstrated by Adam Flanders; and pediatric case studies presented by Charles Pohl, MD. The event concluded with information on international opportunities presented by Janice Bogen and cultural diversity was highlighted by Ed Christian. Of the 96 accepted applicants in attendance, 94 are expected to matriculate on July 31, 2006, a 78% yield.

Recruitment of students from groups underrepresented in medicine remains a challenge for all medical institutions. To date we have extended interview invitations to 121 under-represented in medicine students, interviewed 95, accepted 79 and anticipate 23 matriculants. Efforts to provide additional educational and financial support and increased efforts at recruitment by our faculty and students, as well as the efforts of the Office of Diversity and Minority Affairs, have led to an increase in interest in Jefferson.

During the 2005-2006 calendar year the dean of admissions spoke with students who were interested in going to medical school at Columbia, Princeton, and Haverford. The Office of Admissions served as host to students and pre-medical advisors from Bryn Mawr College, Co-

lumbia University, the University of Delaware and the University of Pennsylvania. Premedical advisors are welcome to sit in on an Admissions Committee if they so desire; this year the new advisor from Moravian College visited.

We continue to participate in sponsored programs for the Northeast Association of Advisors for the Health Professions (NEAAHP) in conjunction with local health profession advisors from colleges and universities in the tri-state area. The purpose of the NEAAHP meetings is to develop and facilitate the exchange of information to advance undergraduate and medical education. Our involvement with the Northeast Consortium on Medical Education (NECOME), a group consisting of the premedical advisors from Amherst, Bowdoin, Hamilton, Haverford, Holy Cross, Middlebury, Swarthmore, Wesleyan and medical school

admissions officers from Albany, Dartmouth, Harvard, Jefferson, Mt. Sinai, Rochester, University of Connecticut, University of Pennsylvania and the University of Vermont, continues. The spring meeting this year was at Harvard Medical College.

The admissions process at Jefferson continues to be highly regarded by both applicants and advisors (according to questionnaires returned by accepted applicants who have withdrawn and according to the personal comments offered by the health professions advisors who have visited Jefferson). This almost universally favorable reaction is largely due to the efforts of the Admissions Office staff, the current medical students who conduct the interviews and tours and, most of all, to the enthusiasm, courtesy, and friendliness of the members of the Committee on Admissions who make the interview a conversation rather

than a confrontation. Most of the students who choose to go to other medical schools have written or called to indicate how difficult the decision was and how impressed they were by their visit to Jefferson and by the friendliness of the students and faculty.

The students who matriculate at Jefferson are intelligent, concerned, and dedicated individuals who have chosen medicine, in many cases, in spite of being advised to select another career by family, friends and physicians. I am confident that our students and graduates will continue to provide competent, compassionate medical care to the sick and injured and will be a credit to the profession and to Jefferson Medical College.

Clara A. Callahan, MD

The Lillian H. Brent Dean of Students and Admissions



Office of Student Affairs and Career Counseling

The goal of the Office for Student Affairs and Career Counseling (OSACC) is to be available for academic and personal advising, to advocate for student needs, to foster career counseling, and to improve student access to the medical college. The office's Web site (<http://www.jefferson.edu/jmc/osacc/>) serves as a vehicle to enhance this mission. A fourth dean, Dr. John Spandorfer from the Department of Medicine, was hired in anticipation of the expanding class size.

Student Affairs Committee and Student Bulletin

The Student Affairs Committee met monthly to support Jefferson Medical College students and to promote student-faculty interaction. Dr. Charles Pohl staffed the Committee as the Dean's representative. Representatives from pertinent university offices and college departments were encouraged to attend this year in order to provide more comprehensive and cohesive student programming and services. Three editions of the JMC Student Bulletin were published to foster communication between students, faculty, and administration of JMC.

Medical Student Orientations First Year Orientation

The First Year Orientation provided a comprehensive introduction to all Jefferson students and facilitated their transition into medical school. The orientation program exposed incoming students to a myriad of student life issues including personal and academic support services, the undergraduate curriculum, and student activities. Students were also familiarized with the facilities and resources available to them through Thomas Jefferson University. In addition, the core values of professionalism, the patient-physician relationship, and Hippocratic Oath were emphasized. The Freshman Assistance Committee, a group of 25 second-year students, was instrumental in welcoming the new students during orientation and helping them get comfortable in their new roles as medical students. The Big Sib Program, which pairs first-year students with upperclassmen, was continued to improve peer mentorship and to strengthen relationships between the "siblings."

At the conclusion of the orientation week, the students and their families participated in the Jefferson Medical College Opening Exercises. This event, which

was conducted by Dr. Thomas Nasca, incorporated the White Coat Ceremony and the Shared Code of Professional Values. Dr. Robert L. Barchi, the President of Thomas Jefferson University and the honorary speaker for the White Coat Ceremony, welcomed the incoming class and discussed the role of Jefferson in medicine.

Second-, Third-, and Fourth-Year Orientation

The upper-class orientations prepared the students for their academic year. The programs continued to introduce the respective curriculum to the students as well as the required OSHA regulations. A required HIPAA training was also incorporated into the orientation. In order to improve the visibility of support services at JMC, the students also received information regarding the Office of Student Affairs and Career Counseling, the Student Personal Counseling Center, the services of the learning specialist, and career counseling opportunities. The Shared Code of Professional Values was also introduced to the students.

Student Clinician's Ceremony

The Student Clinician's Ceremony, which was supported and partially funded by The Arnold P. Gold Foundation, was

continued this year. Its goal is to enhance the students' transition into clinical medicine. The program was incorporated into the third-year orientation and included a keynote speech by a Jefferson clinician, Dr. Clara Calahan, who has been recognized by the students and faculty as a humanistic role model. As part of the ceremony, six outstanding residents who had been chosen by the outgoing third-year class were recognized and honored with the Gold Foundation's Humanism and Excellence in Teaching Award.

Support Systems

"Personal" Dean Assignment

Needs of students vary depending on the class, the time of year, and individual students. To allow each student to develop an in-depth relationship with someone in the OSACC, each student is assigned a "personal dean." Drs. DeSimone, Lopez, Pohl, and Spandorfer took responsibility for a fourth of each of the four classes. Every student was required to meet with his/her assigned dean. The purpose of this meeting was to build a mentoring relationship with the student, to facilitate the student's adjustment to the physical and emotional demands of medical school, to identify and monitor students having academic and/or personal difficulty, to help the student develop strategies in career development, and to remove the punitive stigma of the Dean's Office. Drs. DeSimone, Lopez, Pohl, and Spandorfer were available by beeper at night and on weekends in the event of an emergency.

Clinical Mentor Program

The Clinical Mentor Program, which pairs first-year students to clinicians, was revitalized this year by Dr. Spandorfer. Designed to provide a clinical role model to incoming medical students, students were encouraged to utilize this person as a mentor and friend during their four years at Jefferson medical College. This year, 186 clinical faculty participated in the program. Students always have the option of changing or adding a mentor, especially during the clinical curriculum.

Alumni Association and the Women in Medicine Society

The Alumni Association as well as the Women in Medicine Society also had opportunities for students to develop relationships with clinical faculty. The Jefferson Alumni Association continued a program to help foster mentoring at JMC by having Alumni from an array of specialties meet in small groups for lunch with first-year students. The Women in Medicine Society in conjunction with the University Activities Office sponsored an event highlighting women in medicine.

Academic Support

The Deans for the OSACC maintained a proactive stance regarding student academic performance by having annual meetings with their assigned students. In addition, Drs. DeSimone, Lopez, Pohl, and Spandorfer, along with course directors and the Deans for Undergraduate Medical Education, regularly monitored the students' performance and contacted those

with academic difficulty early in each block. The students were offered the opportunity to work out a plan to rectify deficiencies. Depending on the situation, the OSACC referred students to other counseling services (e.g., learning skills specialist, the Student Personal Counseling Center, University Student Health, a tutoring service, etc.). A quick reference guide for students with academic issues was printed in the *JMC Student Handbook* and posted on the OSACC Web site.

Transfer Students and Returning MD/PhD Students

The OSACC along with the Undergraduate Medical Education and University Registrar Offices monitored students on medical and nonmedical leaves of absence and their subsequent re-entry to medical school. In collaboration with the Clinical Skills Center, the OSACC enhanced the program that is designed to prepare upcoming third-year students for the transition by reviewing history-taking and physical examination skills, discussing the patient-physician interactions, and exposing students to standardized patients and clinical settings.

Personal Counseling

Jefferson offered several options to students seeking counseling. In addition to the deans of the OSACC and the Jefferson faculty, the students utilized the JMC Student Personal Counseling Center. The counseling center, coordinated by Drs. James Youakim and Robert McFadden of the Department of Psychiatry, was available for confidential evaluation and management of student

personal issues, had organized an internal as well as external mental healthcare network, and developed a Wellness seminar series. A member of the Department of Psychiatry was available at nights and on weekends in the event of an emergency. A different student health insurance carrier was introduced to better meet the needs of the students and to help reduce growing barriers to mental health services.

Efforts have continued to incorporate stress management into the medical school curriculum. Students learned that stress is a normal part of daily life in the "Medical Practice of the 21st Century" course. Many students also participated in stress management programs sponsored by the University Activities Office and Center for Integrative Medicine.

Wellness Initiate

A Wellness Initiate, supported by the Dean for JMC, was expanded this year. This group met on a regular basis and was staffed by key university and college departments, including the JMC Dean's office, the Personal Counseling Center, Office for Diversity, medical students, and the University Activities Office. It designed a wellness curriculum as well as updated the JMC Wellness Web site.

JMC Student Emergency Preparedness

OSACC participated in the University Student Emergency Preparedness Committee, chaired by Dr. Pohl, which was charged with the development of a comprehensive plan for personal and University emergencies that af-

fect students. Individual guidelines and policies as well as a centralized Pulse site were created for University administrators.

Career Planning and Clinical Counseling

The Alumni Association coordinated Career Day held on December 7, 2005. Physicians presented brief reviews and answered questions about their specialty. In addition, Dr. Pohl discussed the residency application process. Career Day was aimed at second-year and third-year students, but all students were invited.

Deans for the Office of Student Affairs and Career Counseling participated in the two sessions held by the University Office of the Registrar to assist second-year and third-year students in planning their upcoming clinical schedules. The workshops offered a curriculum overview and a review session on completing forms. Besides administrative input, upperclassmen also provided information regarding schedule planning and electives. Graduates also made use of the career-planning resources for career counseling.

Two booklets were updated and distributed to third-year students as well as posted on the OSACC Web site. One is a collection of descriptions written by each clinical department about its specialty's residencies. It also lists faculty members willing to offer career advice. The other career planning booklet focuses more on the residency application and interview process. On February 10, 2006, Dr. Pohl held a meeting with the Class of 2007

regarding fourth-year curriculum and planning for postgraduate training.

This year, Dr. Timothy Brigham and Dr. DeSimone have moved the Careers in Medicine workshop to second year orientation in order to enhance the career planning process for students. The program, which is sponsored by the Association of American Medical Colleges (AAMC), provides students with information regarding career decisions. Drs. DeSimone and Lopez also facilitated four career workshops for second-year and third-year students. In collaboration with the Learning Resource Center, Dr. Lopez maintained the student research opportunities in a user-friendly Web site.

Special Programs for Medical Student Summer Research

The Director of Special Programs, Dr. Karen Novielli (Associate Dean for Faculty Affairs and Faculty Development) coordinated five medical student summer research programs (Basic Cancer, Translational Cancer, Heart, Lung and Blood, General Medicine, and Computer) that provided ten-week research experiences for medical students in basic science, translational, or clinical research. Each student in a research program works directly with a senior faculty member. The primary goal of the program is to stimulate interest in physician/scientist careers among medical students by exposing the students to state-of-the-art biomedical research and outstanding research mentors.

The National Institutes of Health supports the Basic Cancer and

Translational Cancer Programs through the National Cancer Institute. For 2005-2006, the program in Basic Cancer sponsored 14 positions; eight medical students, four prematriculant students and two undergraduate minority college students. Ten positions in the Translational Cancer Program were filled by first-year medical students. The Heart, Lung and Blood program, funded through the Heart, Lung and Blood Institute of the National Institutes of Health, supported six medical students.

Finally, programs in General Medicine (five students) and Computer (three students) are supported by the Office of the Dean of Jefferson Medical College. All of the student research programs receive primary administrative support through the Office of the Dean. These programs provide an important and enriching experience for Jefferson Medical College students and are important venues for student-faculty interaction.

The students are required to attend a weekly seminar series that covers basic lab safety, responsible conduct of research, human protection and animal resource regulations. The seminar series also has a component that is presented by senior research faculty entitled "Physician Scientist/Careers in Academic Medicine" where faculty discuss how they balance their professional and personal lives, what motivates them to do research, and the opportunities and career trajectories available to the young physician/scientist. As evidenced by the interactions between the students and faculty presenters

and student evaluations of the program, the Seminar Series continues to be a great success.

The first-year medical student body continues to show high interest in these programs.

Postgraduate Training

Twenty-two members of the faculty comprised the Postgraduate Recommendation Committee. They interviewed the "rising" fourth-year students and wrote the Medical Student Performance Evaluations (formerly known as the "Dean's Letters") based primarily on excerpts of course evaluations. Dr. Pohl reviewed and signed all letters for the Committee. All letters included a histogram that plots each student's performance against the aggregate performance of their classmates for each of the core rotations, as well as third-year class rank.

Match 2006

The staff of the Learning Resources Center in Scott Memorial Library, the Office of Student Affairs and Career Counseling, and the University Office of the Registrar coordinated the 2006 Match. Most students generated their rank lists for postgraduate positions online via the Web. Most residency programs used the Association of American Medical Colleges' Electronic Residency Application Service (ERAS) in their application process, which made the process less burdensome for students. Match Day was March 16, 2006. On November 1, 2005, the Associate Dean, along with 12 different Program Directors of Thomas Jefferson University, met with the Class of 2006 to provide in-

formation regarding residency selection and the interviewing process. Dr. Pohl reviewed the ranking procedure of the NRMP with the senior class on February 8, 2006.

As seen on Table 1, of the 215 senior students (Class of 2006), 203 (94%) participated in the National Resident Matching Program (NRMP). Of the match participants, 11 students (5%) were unmatched for PG-1 (Table 2). Four of the 11 unmatched students, though, had secured a PG-Y 2 position. Nationally, the unmatched rate was six percent. All the unmatched students were subsequently matched to good positions or attained research positions. Twelve (6%) students elected not to participate in the match either because of a commitment to one of the armed services, a delay in career choice, or deferment of their training.

The specialties chosen most frequently by the 213 seniors going on to postgraduate training were Internal Medicine (20%), Family Medicine (10%), and Emergency Medicine (9%). Of this year's seniors going onto residency training, 99 (46%) entered primary care specialties including internal medicine, family medicine, pediatrics, medicine-pediatrics or obstetrics and gynecology residency. Sixty-six percent of seniors participating in the NRMP matched at a university program for their PG-1 year. Ninety-five students accepted PGY-1 appointments in Pennsylvania, and 55 students accepted appointments in institutions that are the responsibility of Thomas Jefferson University Hospital or its affiliated hospitals. The NRMP no

longer reports the percentage of students at each medical school that gets one of their top choices in the Match.

Charles A. Pohl, MD

Associate Dean for Student Affairs and Career Counseling

Kristin DeSimone, MD

Assistant Dean for Student Affairs and Career Counseling

Bernard Lopez, MD

Assistant Dean for Student Affairs and Career Counseling

John Spandorfer, MD

Assistant Dean for Student Affairs and Career Counseling

Table 1
JMC Match Program Selected Data

	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997
# In Match	213	214	217	184	197	202	201	201	212	201
# Unmatched	11	16	21	11	11	13	13	9	12	12
Specialty Preferences of Unmatched Students	1 Derm 1 Ent 1 OB 2 PreMed* 3 Surg 1 Trans* 1 Plast 1PreSurg*	2 Anesth 1 Derm 1 EM 1 FM 2 Med 1 OB 1 Ped 5 PreMed* 2 Surg	3 Derm 1 EM 1 Med 4 Ortho 2 Path 1 Plast 2 PreMed 1 Rad 1 Rehab 5 Surg	1 Med 1 No List* 3 Ortho 1 Ped 1 Psych 2 Rad 1 RadOnc 1 Trans*	1 Derm 1 EM 4 Ortho 4 PreMed 1 Rehab	1 Derm 1 FM 1 IM 2 PreMed* 1 PreSurg* 3 Ortho 2 Rad 1 Surg 1 Trans*	1 Derm 2 EM 2 FM 3 Ortho 2 PreMed 1 Rad 1 Surg 1 Trans*	2 Med 1 Ortho 1 Path 1 Peds 2 Ortho 4 Surg 2 Rad 1 Urol	2 Derm 1 Med 1 Peds 2 Ortho 4 Surg 2 Trans	1 FM 1 Med 3 OB 4 Ortho 1 PreMed 1 PreSurg 1 Psych
# Match at Primary Medical School Affiliates**	156	159	163	140	162	126	141	158	151	116

* These students matched for their PG-2 residency position, but not for their PG-1 position.

** Includes PG-1 and 2 (if known)

Office of Student Affairs and Career Counseling July 2006

Table 2
Initially Unmatched Students in the NRMP

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
8.0%	6.0%	5.7%	4.4%	6.5%	5.9%	5.6%	6.0%	9.6%	7%	5%

The unmatched rate for all graduating U.S. seniors was 6% in 2006.

Office of Diversity and Minority Affairs



The Office of Diversity and Minority Affairs (ODAMA) has as its mission promoting multicultural initiatives that affirm Jefferson's commitment in maintaining a culture of understanding and mutual respect within the Jefferson Community. These initiatives serve to increase awareness amongst the TJU community while helping to open the lines of communication and cooperation. Ongoing efforts to promote diversity and cross-cultural competent healthcare continue to be the focal point for this office.

This year, 2005-2006, the diversity initiatives were continued. We were able to reach out to many more students from Jefferson Medical College, the College of Health Professions, and the College of Graduate Studies, in addition to faculty and staff. The Office of Diversity and Minority Affairs became an official site for summer interns in the Medical Society of Eastern Pennsylvania/Glaxo Smith Kline Summer Intern Program. One of the newest initiatives for ODAMA is the integration of cultural diversity into the Medical College curriculum. We are pleased to say that this year, there was a significant increase of cultural diversity integrated into the Medical Practice in the 21st Century (MP21) curriculum.

Lecture Series/Celebratory Events/Activities

The lectures, cultural/ethnic events and activities focus on the underlying issues concerning diversity, healthcare issues and healthcare disparities among ethnic groups.

Both served as a way of further promote diversity and cultural awareness.

Latin Heritage Month

Dates: September 15 – October 15, 2005

Lecture: "The Latino Patient: Healthcare Issues Impacting Latino Health"

Guest Speaker: Iris Reyes, MD
Associate Professor of Emergency Medicine at UPENN

Evening Social: Latin Heritage Month Dinner Dance

Expressions of Asia

Dates: Month of January

Date: Tuesday, January 10, 2006

Lecture: "Healthcare Services for Chinese Immigrants in America"

2 Lectures (12 noon and at 1:00 p.m.)

Guest Speaker: Phillip Siu, MD and Walter Tsou, MD

Date: Wednesday, January 11, 2006

Lecture: "Life as an Indian Doctor"

Guest Speaker: Salman Akhtar, MD

Date: Monday, January 16, 2006

Lecture: "HIV and AIDS in the Asian American Community-Myths and Realities"

Guest Speaker: Laura Lau
AIDS Services at the Asian Community (ASIAC)

Date: Tuesday, January 24, 2006

Lecture: "Hepatitis B and Hepaticellular Carcinoma in the Asian American Population"

Guest Speaker: Hie-Won Hann, MD

Date: Monday, January 30, 2006

Lecture: "Work and Interest of Jefferson's Indian Doctors"

Guest Speakers: Salman Akhtar, MD, Madhu Kalia, MD, and Vijay Rao, MD

Panel of Indian Doctors

Expressions of Asia - Cultural Evening Extravaganza.

Black Heritage Month

Date: Friday, February 24, 2006

Evening Social: Black Heritage Month Cultural Dinner

Diversity Week

Dates: Monday, April 3-Friday, April 7, 2006

World Maps – "Where are you originally from?"

Flagged pins on country of origin

Date: Friday, April 22, 2005
Multicultural Evening/International Day

Desserts from Around the World,
12:00 p.m. – 2:00 p.m.

Evening Social: Multicultural
Dinner

Jefferson Medical Language Immersion

The Jefferson Medical Language Immersion Program (JEFF MED-LIP) was designed to address the need of today's diverse patient population which consists of people who often have limited English-speaking skills. The program enables our students to learn medical terminology, social-cultural norms and nuances, in addition to prevalent diseases within the sub-groups. It includes visits to nearby community clinics where students have the opportunity to see patients and get some hands-on experience. Community outreach is done on a weekly basis by conducting educational health promotions workshops putting into practice the language skills and competencies acquired.

Medical Spanish

The course is divided into basic, intermediate and advanced levels. It is offered for an hour once a week for 30 weeks. Students interested in taking the course are given a placement test on the first day of class.

The 2005-2006 enrollment of 101 students participated in Basic 1 (23 students), Basic 2 (24 students) Intermediate (21 students) and Advanced (33 students).

Clinical "Immersion" Experience Abroad

A summer "immersion" experience in a foreign country where that specific language is spoken is offered as part of the pro-

gram. Students are able to travel abroad for six to eight weeks and experience first-hand that country's healthcare delivery system. Students are able to apply for a limited number of Foerderer Scholarships through the Office of International Exchange Services.

Five Jefferson Medical College students and one student from the University of Medicine and Dentistry (NJ Med) participated from June 15, 2005 to July 29, 2005 at the Universidad Ibero Americana School of Medicine (UNIBE) in Santo Domingo, Dominican Republic.

Four Jefferson Medical students participated from June 5, 2006 to July 31, 2006 at the Universidad Autonoma de Guadalajara School of Medicine (UAG) in Guadalajara, Mexico.

Student Organizations Diversity Council

The Diversity Council has been very active in helping to plan and promote programs run by the Office of Diversity and Minority Affairs. Membership, this year, numbered 15 students. Their active participation in promoting these programs produced a large turnout in all initiatives and insured a highly successful year for ODAMA.

SNMA

The newly elected leadership for the Student National Medical Association (SNMA) and the Jefferson African American Student Society (JAASS) met with Edward B. Christian, PhD for a one hour leadership orientation meeting. The JAASS (July 29, 2005) and SNMA (Septem-

ber 15, 2005) meetings reviewed leadership roles and responsibilities, and the time table for community service projects and established their 2005-2006 operating budgets.

Conferences

ODAMA hosted three conferences this year: the National Boricua Latino Health Organization, the Asian Pacific American Medical Student Association's Regional Conference and the Jefferson African American Student Society's Minority High School Conference.

Orientation

An overview of cultural diversity and introduction to the Office of Diversity and Minority Affairs was presented during first year orientation by Associate Dean Edward B. Christian and Assistant Dean Luz Ortiz.

The Jefferson Chapter of the Student National Medical Association and the Jefferson African American Student Society sponsored a reception for incoming underrepresented in medicine students.

Diversity Curriculum

The cultural immersion exercise, BaFa BaFa, was coordinated by ODAMA. Faculty volunteers were provided with an orientation for session leaders on July 29, 2005, and the entering first year class participated in the cultural immersion experience over four days on September 12-15, 2005.

The first year diversity curriculum continues to grow. To date, 45 hours of instruction are devoted to cultural diversity. The

newest addition is the three part series on racism.

In the continued effort to promote health and wellness, ODAMA sponsored TaiChi lessons. Thirty-six, two-hour sessions were instructed by Tai Chi Master Xunling Zhang. Sessions were open to all medical students and Jefferson employees.

Minority Affairs

Undergraduate Recruitment and Retention

This year, extensive recruitment took place at graduate and professional recruitment fairs, national, regional and professional conferences, minority medical student organizations, conferences and undergraduate schools. Networking and strong bonds with pre-health advisors throughout the nation have been established. For a summary of all recruitment trips see Table I.

Graduate Recruitment and Retention

Increasing the number of underrepresented residents at Jefferson is in keeping with the ODAMA diversity mission. In

an effort to increase the numbers in the Department of Family Medicine, Deborah Witt, MD, has established and chairs the Minority Steering Committee whose charge is to recruit and retain minority residents. ODAMA provided assistance by sponsoring a recruiting trip to the SNMA National Conference for Dr. Witt.

Advertisement

This year, ODAMA placed advertisements in the *Journal for Minority Medical Students*, *Winds of Change Magazine*, the Latino Medical Student Association and Boricua Latino Health Organization.

Pipeline Programs

Future Docs

Throughout the country, many medical schools have established “pipeline” programs. To begin a pipeline into the medical school, ODAMA implemented a program entitled Future Docs. This year, the program focused on primary school students.

In the 10-week Primary School Program – 42 students in grades

fourth, fifth and sixth participated once a week from 3:30-6:00 p.m. and came from one school (TM Peirce Elementary School).

Summer Interns

ODAMA assisted Wilfreda G. Baugh, MD with the 2005 Medical Society of Eastern Pennsylvania/Glaxo Smith Kline Summer Intern Program. Each year the MSEP/GSK program selects 10 minority students from across the country to participate in shadowing experiences with minority physicians and educators. This summer, four program participants spent one week at ODAMA exploring the medical school admission process, gaining knowledge regarding diversity as a concept in medical education and assistance with researching and writing a two page paper focusing on health care access.

Edward Christian, PhD

Associate Dean for Diversity and Minority Affairs

Luz Ortiz, MA

Assistant Dean for Diversity and Minority Affairs

Table 1
Recruitment Visits and Professional Development Conferences 2005-2006

DATE	PLACE	EVENT	APPROXIMATE # OF STUDENTS
Sept. 16-21, 2004	Atlanta, GA	NAMME National Conference**	400 students Prof. Dev./Networking
October 11, 2004	Philadelphia, PA	UPENN-Upward Bound	100 students
October 19-24, 2004	Austin, TX	SACNAS Annual Conference	800+ students
October 26, 2004	Philadelphia, PA	Shaw High School	100+ students
October 28-30, 2004	Gainesville, Florida	AMSA-Premedical Annual Conference	300+ students
November 3, 2004	Philadelphia, PA	Nueva Esperanza Academy Charter H.S. Career Day	150 students
November 5-9, 2004	Boston, MA	AAMC Annual Conference	150 students Prof. Dev./Networking
February 3-6, 2005	Ithaca, NY	Cornell University BBMTA Annual Conference	100 students
February 7-13, 2005	Florida Swing – Miami, Tampa	Univ. of Miami, Florida Inter. Univ., Univ. of South Florida	450 students
March 31-April 5, 2005	Los Angeles, CA	NHMA Annual Conference**	150 students Prof. Dev./Networking
April 7-10, 2005	San Diego, CA	LHMA Annual Conference	400+ students
April 21-24, 2005	Syracuse, NY	NAMME NE Regional Annual Conference**	200+ students Prof. Dev./Networking
April 27, 2005	Piscataway, NJ	Rutgers University MAPS Annual Career Day	100 students
April 16-20, 2005	Guadalajara, Mexico	Site Visit JEFF MED LIP Medical Spanish	
May 30-June 5, 2005	New York, NY	NCORE Annual Conference**	Continuing Education Professional Development/Networking

** These conferences also served as professional development/continuing education.

Table 2
Recruitment Visits and Professional Development Conferences 2005-2006

DATE	PLACE	EVENT	APPROXIMATE # OF STUDENTS
October 6, 2004	College Park, MD	University of Maryland Minority Recruitment Fair	300 students
October 29, 2004	Saint Davids, PA	Pre Medical Society Information and Recruitment Fair	20 students
October 28, 2004	Philadelphia, PA	University of Pennsylvania Graduate Student Society Discussion on Minorities in Medicine and Recruitment	400 students
March 26, 2004	Bryn Mawr, PA	Pre Medical Society Lecture and Recruitment	100 students
April 4, 2004	Wilkes Barre, PA	Philadelphia Public Schools Health Care Conference Lecture on opportunities in Medicine	300 students
June 23-25, 2004	Chapel Hill, NC	University of North Carolina and Duke University Minority Recruitment Fair	1000 students
July 15, 2004	Cleveland, OH	Case Western Reserve Summer Programs Recruitment Fair	350 students



Student Council

The Student Council is comprised of elected representatives from each class at Jefferson Medical College. The JMC Student Council is an advocate for the student body and strives to maintain the autonomy and creativity of our student organizations. Responsibilities of the Council include supervision of student organizations, disbursement of university funds, and the dissemination of information on issues pertinent to student life at the Medical College. Furthermore, the Council acts as the liaison between the students, faculty and administration. Council representatives serve with faculty on standing committees in the areas of admissions, affiliations, alumni, research, curriculum, student affairs and technology. As the collective voice of the student body, the Council works continuously with faculty and administration to recommend and implement changes that will positively impact students at the Medical College and within the University community. The following is a sample of the activities and organizations in which the Student Council members and many others participated during the past year.

Student Activities and Organizations

JMC Student Noteservice

Continuing on the developments of last year, the Council has created a note service that can be easily maintained and continue for years to come. Through the efforts of the Student Council Executive Board, past and present (Constantinos Ketonis, Richard Kiok, Renee Tholey, Neerav Goyal), a system has been created to ensure efficient note taking by the students and easy access for the students. Each scribed lecture is posted to the Pulse Web site where everybody can access the notes. This is a change from prior years when a for-profit organization used a similar system involving printed notes, but charged participants several hundred dollars every semester to have notes printed up. The new service allows for quick access to a valuable study resource utilized by many first- and second-year students.

JeffHOPE

The JeffHOPE Homeless Shelter Clinic Project is a student-run health clinic that provides free medical care and education to indigenous populations in Philadelphia. This ambitious

program is the most extensive of its kind in the city. The project is sponsored by the Department of Family Medicine (Dr. James D. Plumb, advisor). However, faculty from many departments pledge their time, resources and support. For first- and second-year medical students, the clinics provide invaluable early exposure to patient care. Third- and fourth-year students have the opportunity to examine and treat the homeless population as well as teach first- and second-year medical students the fundamentals of physical examinations, history taking and the pathophysiology of common diseases. Each week, 10 to 15 students and several faculty members treat homeless men at various shelters including the Eliza Shirley House, Ridge Shelter, ACTS Shelter and Our Brother's Place. In addition, Jefferson students assist at Prevention Point (a needle exchange site) on weekends. The annual JeffHOPE Ball, a formal event held at the Ben Franklin House, raises money and awareness of JeffHOPE's cause, as well as honors faculty who have been integral to JeffHOPE's creation and perpetuation. The ball is a grand yearly event.

JeffMentors

JeffMentors is an organization comprised of 30 Jefferson medical students dedicated to a one-on-one mentoring program for disadvantaged children from North Philadelphia. Students commit to spending at least four hours a month with their “mentee” for a minimum of two years. Since many of these children do not have strong adult figures in their lives, the students in the program are essential role models to these children during a pivotal time in their development. Through JeffMentors many of the children are exposed to activities and places they would not otherwise have access to. In the past, mentors have taken their “mentees” swimming, ice skating, to the park, and to sporting events. This year they had several successful group activities including a gym day, a Christmas party, a trip to the National Constitution Center, and a spring barbeque. Additionally, they hosted Wing-Bowl in March, a very successful buffalo-wing eating contest to raise money for the organization. The event was attended by more than 200 members of the Jefferson community and was a huge success. JeffMentors continues to be a very fulfilling and rewarding organization on the Jefferson campus.

American Medical Women's Association (AMWA)

In addition to promoting female role models and providing a support network for women in medicine, AMWA is also active in community service. AMWA is a permanent participant in the Jefferson Faculty Women's Task Force. Members volunteer at

women's shelters such as the Eliza Shirley House. In addition, this year the organization ran a lecture on breast cancer along with fundraisers for domestic violence victims and the Linda Creed Breast Cancer Foundation. Due to the Jefferson chapter's impressive involvement in promoting women's health on campus and in the community, one of the leaders, Katie Kupper, received the Anne C. Carter Student Leadership Award from the national AMWA chapter. This group has served as an excellent resource for women in medicine.

American Medical Association (AMA)

One of the larger medical organizations on the national level, the AMA also has a strong presence in the Jefferson community with the Jefferson chapter. With over 65% of first-year students enrolled, and similar enrollment throughout JMC, the Jefferson chapter commands a strong presence in the Jefferson community, and successfully utilizes their strengths through their various activities. This year, they successfully raised nearly \$2000 for Hurricane Katrina relief through a well-attended fun-filled date auction where prizes including basketball tickets and golf outings were donated by various students and doctors. In addition, a clothing drive was run in the winter months to provide residents of the ACTS shelter with clothing. On the regional and national levels, our chapter is well represented with many Jefferson students holding offices.

American Medical Student Association (AMSA)

Similar in size to the AMA, AMSA also has a recognizable presence at Jefferson. Throughout this year, the Jefferson chapter has held lectures on myriad topics ranging from maternal health literacy to smoking cessation to medical malpractice to holistic medicine. Additionally, AIDS awareness was one AMSA theme this year, which was exhibited through showing an AIDS documentary along with fundraising with t-shirts. Specifically for Jefferson students, AMSA ran a lecture on financial aid and work study.

Ars Medica

Ars Medica sponsors seminars and talks on alternative medicine (e.g., acupuncture, yoga and folk healing), and on topics such as the influence of literature and music on medicine and healing.

International Medicine Society (IMS)

The IMS investigates opportunities for student electives abroad and has developed exchange programs with international medical schools. It hosts numerous workshops throughout the year to familiarize students with possible research opportunities abroad and how to raise money for travel and expenses. In addition, the steering committee educated students about the process involved in obtaining faculty support and credit for international electives.

JMC boasts more than 80 student organizations. (See Table 1 following this report.) In addition to chapters of national organizations and honor societies, numer-

ous career, religious, cultural, athletic and special-interest organizations exist. A complete summary of all organizations, events accomplished, and expectations for the upcoming year can be found in the *Student Organization Annual Report Handbook*.

The JMC Student Council has been extremely active and vocal in attending to the various needs of the student body and greatly appreciates the support given to it by the administration, University departments, and the Office of Student Affairs and Career Counseling.

Neerav Goyal

President, JMC Student Council, 2005-2006

Jason Walls

Vice-President, Class of 2008

Renee Tholey

Secretary, Class of 2009

Richard Kiok

Treasurer, Class of 2009

Table 1
JMC Student Organizations by Category

Career Oriented	Faculty Advisor	Student Contact
American Medical Association - Medical Student Section	Stephen Schwartz, MD	Kavita Shah
American Medical Student Association	Charles Pohl, MD	Alicia Wiczulis
American Medical Women's Association	Karen Novielli, MD	Rohini Kumar
Anesthesiology Society	Zvi Grunwald, MD	Bahar Fazeli
Ars Medica	George Brainard, PhD	Alison Walsh
Dermatology Society	Franziska Ringpfeil, MD	Michelle Pramick
Edward McGehee Geriatrics Society	Christine Arenson, MD	Alexandra Sawicki
Emergency Medicine Society	Paul Kolecki, MD	Cindy Lee
Gibbon Surgical Society	Joseph Lombardi, MD	William Long
International Federation of Medical Students' Associations	Janice Bogen	Jordan Goldhammer
International Medicine Society	Janice Bogen	Michelle Doll
Jeff YES	Patrick McManus, MD	Deborah Kim
Kathryn MacFarland Ob/Gyn Society	Abigail Wolf, MD	Christopher Almario
Medical Innovation Forum	Howard Greenberg, MD, MBA	Gregg Goldstein
Medical Oncology Society	Bruce Boman, MD, PhD	Jeannine Seu
Orthopaedic Surgery Society	Alan Hilibrand, MD	Robert Norton
Otolaryngology Society	David Rosen, MD	Mark Friedel
Pediatrics Society	Charles Pohl, MD	Katherine Hennesy
Peter Amadio, Jr. Family Medicine Society	Fred Markham, MD	Alexandra Sawicki
Philadelphia Med-Peds Society	Allen Friedland, MD	Benjamin D'Souza
Plastic Surgery Society	James Fox IV, MD	Paul Benedetto
Psychiatry Society, Jefferson	Mitchell Cohen, MD	Margot O'Donnell
Radiology Society, TUJ	Levon Nazarian, MD	Michael Spina
Sports Medicine Society, Jefferson	Marc Harwood, MD	Stephen Stache
Student Interest Group in Neurology	George Brainard, PhD	Laura Snyder
Student National Medical Association	Edward Christian, PhD	Celestine Wanjalla
Thomas Duane Ophthalmology Society	Mark Pyfer, MD	Gary Shienbaum
Urology Society, Jefferson	Leonard Gomella, MD	Josh Sleeper

National Honor Societies	Faculty Advisor	Student Contact
Alpha Omega Alpha Honor Medical Society	Clara Callahan, MD	Mark Kurd
Hobart Amory Hare Honor Medical Society	Gregory Kane, MD	David Anderson
Internal Medicine Society	David Axelrod, MD, JD	Laryssa Hud

Special Interest	Faculty Advisor	Student Contact
Arrhythmias	Richard Horn, PhD	Irene Yang
Arts Organization	Mitchell Cohen, MD	Justin Belin
Choir	Robert Sataloff, MD, DMA	Margaret Barood
Dance Troupe	James Plumb, MD	Tania Mucci
Freshman Follies & Sophomore Sequelae	John Spandorfer, MD	Robert Olszewski, Jr.
Histones	Richard Schmidt, PhD	Arun Singh
History of Medicine Society	Salvatore Mangione, MD	Jonathan Kopelovich
Jeff Recycles	George Brainard, PhD	Leslie Finkel
Lambda Alliance	William McNett, MD	Michelle Sperry
Married Student/Significant Other Society	Grace Hershman, MEd	Doriann Lavery
Medical Students for Choice	Carmen Sultana, MD	Benjamin Katz
Military Medical Students Association	Edward Jaeger, MD	Bryan Newbrough
Move4Health	Patrick McManus, MD	Maureen Clarke
Outing Club	Richard Schmidt, PhD	Dwight Pringle
Physicians for Social Responsibility - Student Chapter	James Plumb, MD	Ellen Plumb
STAND UP!	James Plumb, MD	Lauren Smith
Student Blood Drive Team, Jefferson	Samir Ballas, MD	Trish Henwood
Students for Life, Jefferson	Geno Merli, MD	Karla Hirshorn
Unite for Sight	Tara Uhler, MD	Carrie Zaslow

JMC Related	Faculty Advisor	Student Contact
Ambassadors	Clara Callahan, MD	Will Brooks
Big Sib Program	Charles Pohl, MD	Emily Abramson
Black & Blue Ball Committee	Charles Pohl, MD	Jessica Stirpe
The Clinic	Charles Pohl, MD	Peter Moffett
Freshman Assistance Committee	Charles Pohl, MD	Emily Abramson
Jeff Mentors	Patrick McManus, MD	Angela Au
Jeff SOAR	Ralph Riviello, MD	Rujuta Patel
Professional Conduct Committee	Charles Pohl, MD	Chris Pagnani
Student Admissions Coordinators	Clara Callahan, MD	Whitney Jackson
Student Council	Charles Pohl, MD	Neerav Goyal

Athletics	Faculty Advisor	Student Contact
Football League	Hector Lopez, MD	Daniel McKinley
Karate Club	Hideko Kaji, PhD	Melissa Downsborough
Running Club	Timothy Brigham, PhD	Steven Schaefer
Soccer Club	Matthew DeCaro, MD	Adam Lindsay
Ultimate Frisbee Club	Fred Markham, MD	Dorothy Wang
Volleyball Club	Jonathan Powell, MD	Peter McIntyre
Water Polo Club	Mark Curtis, MD, PhD	Gaetan Sgro

Cultural/Religious	Faculty Advisor	Student Contact
African American Student Society	Jessie Pervall	Bubu Banini
Asian Diversity Enrichment	Cynthia Cheng, MD, PhD	Daniel Chen
Association of Indians	Salmak Akhtar, MD	Sameer Kirtane
Boricua Latino Health Organization	Luz Ortiz, MA	Deirdre Smith
Christian Fellowship	Susan Adeniyi-Jones, MD	Daniel Chen
Islamic Medical Association	Edward Christian, PhD	Feraz Rahman
Jewish Student Association	Allen Zeiger, PhD	Jascha Rubin
Louis Pasteur Roman Catholic Society	Janine Kyrillos, MD	Steve Schaefer

Community Service	Faculty Advisor	Student Contact
Clowns for Medicine	Richard Horn, PhD	Benjamin D'Souza
Jeff HEALTH	James Plumb, MD	Ellen Plumb
Jeff HELP	James Plumb, MD	Daniel Relles
Jeff HOPE	James Plumb, MD	Michelle Pramick
Jeff Hope for Kids	Charles Pohl, MD	Moses Mathur
Jeff Outreach	Charles Pohl, MD	Julie Linek
Students Educating & Advocating for Literacy	Angela Allevi, MD	Marylee Dilling
Ways & Means	Stephen Kern, MS	Stephen Kern, MS



University Office of the Registrar

During the 2005-2006 Academic Year, the University Office of the Registrar reported an opening Fall enrollment of 2,668 students in the combined three academic divisions of the University: 929 in Jefferson Medical College (35 percent), 979 in the Jefferson College of Health Professions (37 percent), and 760 in the Jefferson College of Graduate Studies (28 percent).

Of the 475 men and 454 women comprising total enrollment in Jefferson Medical College, geographic origination was diverse, with 38 states, Puerto Rico, and 10 foreign countries represented. Consistent with previous years, just over two-thirds of the enrollment came from five states. Pennsylvania residents accounted for 45 percent (417) of the total enrollment, followed by New Jersey (eight percent, 75); Delaware (six percent, 60); New York (four percent, 40); and California (four percent, 35). Five International students originated from Malaysia as part of our affiliation with the International Medical University, located in Kuala Lumpur. Canada had six students in attendance, two students each were from Kenya and the United Kingdom, and one student each were from the Bahamas, Brazil,

Cyprus, Hong Kong, Nigeria and South Korea.

Special academic programs remained attractive to students with 61 enrolled under the Jefferson/Delaware Medical Education Program, 71 in the Pennsylvania State University Accelerated Program, and 20 in the Jefferson Physician Shortage Area Program. Combined MD/PhD programs in conjunction with the Jefferson College of Graduate Studies accounted for 21 students in either of the two colleges during 2005-2006. Thirteen students were enrolled in the joint Jefferson/Widener MD/MBA program.

At Commencement exercises on June 1, 2006, the Doctor of Medicine degree was awarded to 217 candidates in the Class of 2006.

BANNER/Technology and Web Enhancements

With support from JeffIT, the Dean for Students and Admissions, Associate Dean for Student Affairs and Career Counseling, Senior Associate Dean for Academic Affairs/Undergraduate Medical Education, and the Registrar's Office continued to focus on technology enhancements this year.

With the capabilities inherent to the Banner Student system and with joint cooperation among university administrative offices, the requirement that Second Year students appear for in-person registration was eliminated. The time formerly set aside for this activity was returned to the Office of Student Affairs, allowing for a more focused and comprehensive orientation to the students' upcoming year. Previously this requirement had been successfully eliminated for third- and fourth-year students.

The office was again invited to attend the Admissions Office "Second Look" program held for students accepted to the incoming Fall class. An overview of the online capabilities and services available to students via Banner Web were demonstrated, and allowed students to ask questions related to office services.

Student reaction remains uniformly, and overwhelmingly, positive concerning the ease and convenience of Banner Web-based student processes. This online ability to complete administrative tasks has eliminated much of the need for students to visit our office for routine items.

Medical Student Performance Evaluation

We continue to review and adjust the Medical Student Performance Evaluation (MSPE) process, as experience is gained in the electronic processes enabled in the past several years. Each letter writer was provided with electronic copies of the initial baseline letter with specific biographical information completed, as well as clinical evaluations for each of their students in Adobe PDF format. Letter writers without Jefferson network access are routinely provided the same service via portable electronic media. The office produced and mailed approximately 125 Medical Student Performance Evaluation (MSPE) packets to residency programs outside of the AAMC Electronic Residency Application Service (ERAS) for the JMC Class of 2006. Nearly 75 addendum letters were created to include evaluations received after the original MSPE letter was produced. As more residency areas have been added to ERAS, the required paper application support continues to decrease. Office responsibilities in this process remain critical even with the electronic process. This past year, approximately 260 students' and past graduates' information was electronically transmitted to residency programs, comprising an estimated 6,250 documents.

University Calendar

The University-wide student-oriented calendar, available on the University Web site, remains a convenient reference tool for the University population. Updated frequently, information concerning academic and student social

and organizational events is easily accessible to all University constituencies. In some instances academic event dates are available up to two years in advance. However, with the growing needs of the Jefferson Community for a more robust institution calendar, the Registrar's Office has investigated the partner product to the academic room reservation system currently in place as a possible solution. EMS Professional (EMS Pro), a more robust room reservation scheduling system, was purchased and installed in the spring. Efforts are currently underway to transition room reservation data out of the University OpenTime calendar into EMS Pro. We expect to have all current reservation data contained in EMS Pro by mid-September 2006. Once the initial implementation segment is completed, a second stage implementation will follow that will allow the university community to view real-time room availability and request reservations via a Web link. We expect roll out of this segment during the Fall Semester.

Following the pilot effort in 2004-2005, and in conjunction with other university service offices, a tracking system was fully implemented to eliminate the problem of students who fail to complete all pre-matriculation requirements prior to starting classes. Involved offices had the ability to place "holds" on student records noting designated outstanding requirements. Students in this category were alerted via university email and by paper. We found the process to be highly effective, and with

a few minor adjustments will be using it again for the upcoming year.

Banner Reimplementation

The major technological project this past year has been the consolidation effort to merge the three separate college Banner student record systems into a single database. The effort, coordinated by Jeff-IT, involved the software vendor and all of the university and college offices with database update capabilities. Jeff-IT and the user working group met at least weekly throughout the year to work through common issues, agree on uniform coding and provide ongoing testing. The end of Spring semester testing revealed a number of items requiring further refinement and retesting. Final testing and implementation of the consolidated database is expected to be completed in Fall 2006.

Academic Space

At the request of the President's Office, an academic space utilization study was undertaken in conjunction with the Department of Facilities Management to determine the adequacy of teaching space. The study looked forward five years and investigated the number of specific teaching space types and seat capacity to determine whether lecture and teaching space needs were sufficient to support the current and proposed academic program offerings.

As always, we continue to look for ways to "fine tune" our processes to take advantage of available technology and increase our service efficiencies.

Personnel Changes

The past year was stable for the office administrative staff. The most pressing issue was the filling of the critical Room Reservation Specialist position that became vacant in early spring. We were fortunate to have found an individual that not only is handling the day-to-day aspects of the position, but is doing so while learning and implementing the new room reservation system.

Professional Affiliations

The Senior Associate University Registrar continued in a leadership role in the American Association of Collegiate Registrars and Admissions Officers (AACRAO). He served as Vice Chair of the AACRAO State and Regional Relations Committee, serving as a liaison to the national organization for the Middle States, New York/New Jersey, and other AACRAO regional organizations, and assumed the

Chair position at the recent annual conference.

Raelynn Cooter, PhD

Associate Dean for Administration, JCHP and University Registrar

David R. Clawson

Senior Associate University Registrar and University Director of Student Records



University Office of Student Financial Aid

The University Office of Financial Aid is responsible for providing educational-financing services to students in all three colleges of Thomas Jefferson University, as well as debt-management counseling for TJU students, alumni, and Jefferson Health System (JHS) house staff.

Sources of Financing

Table 1 and Figure 1 show the total aid awarded to Jefferson Medical College students during the 2005-2006 academic year. In reviewing this data, it is important to note additional characteristics regarding the composition of total funding.

Of the \$31,427,141 borrowed during 2005-2006, \$22,453,695 was from unsubsidized sources (Federal Unsubsidized Stafford and private alternative loan programs). The amount shown indicates only the principal borrowed; however, interest accrues to the student's account from the date funds are disbursed. Unsubsidized borrowing has increased from the prior year largely in part by the decreased cost of borrowing due to historically low interest rates. This issue is discussed further in this report.

Of the \$5,748,626 awarded in grant and scholarship funding,

\$1,691,401 was from service-obligation programs (National Health Service Corps, Armed Forces Health Professions Scholarship, and Federal Work Study). Receipt of these funds requires an "in-school" or post-graduation employment obligation.

Federal Work Study

Federal Work Study (FWS) is a program by which students may defray a portion of their educational expenses through employment, either on campus or in the surrounding community. JMC students are employed in research-assistant and community-service positions. The total amount earned during 2005-2006 is shown in Table 1.

As part of this program's community-service efforts, Federal Work Study remains a primary funding source for summer employment through the Bridging the Gaps (BTG) program. During the summer of 2005, Federal Work Study funds sponsored 14 Jefferson Medical College students, five undergraduate and eight graduate Jefferson College of Health Professions students in the BTG program, thus providing support for 66% of the BTG payroll.

Starting with the 1999-2000 academic year, the Federal Work

Study Program regulations expanded the community service requirement to include at least one literacy program. This requirement has necessitated that at least one FWS student be employed in a "reading tutor/family literacy project." As an initial step in fulfilling this regulatory requirement, the University Office of Financial Aid provided FWS funding for the Department of Pediatrics' "Students Educating and Advocating for Literacy" Program. This program was renewed this year with increased participation by students.

During 2001-2002, the literacy portion of the Federal Work Study Program was further expanded through the development of a reading program with the children at a Jeff HOPE homeless shelter and JMC students in the Jeff HOPE for Literacy, Eliza Shirley Shelter, ACTS Shelter, and The Village Community Center literacy programs. In addition, 4 graduate health professions students participated in a literacy program with the St. Elizabeth's Homeless shelter in NJ. This program is sponsored through the Occupational Therapy program. Expansion of these programs will continue during the 2006-2007 academic year.

Student Indebtedness

Table 2 shows the average debt for Jefferson Medical College's graduating class of 2006, with comparative data for the five preceding years (2001-2005). Student borrowing continues to outpace increases in tuition rates, and increases in the consumer price index. This has occurred even though the level of scholarships awarded by JMC has increased, and the family (parental) financial strength has remained relatively consistent among classes. Consistent with trends in recent years, the escalating borrowing patterns of our students can be attributed, at least in part, to the historically low interest rates, and the influence this has had on personal choices related to the cost of borrowing.

Focusing on the interest rates that were in place during the medical school career periods of the Classes of 2004 through 2006, there is strong evidence to support the idea that borrowing decisions are being made based on the lower cost of debt. For the Class of 2006, Federal Stafford Loan rates ranged from a low of 2.77% to a high of 4.7% during their four-year enrollment. Comparable rates for the Class of 2005 were a low of 2.77% and a high of 5.39%, and a low of 2.82% and a high of 7.59% for the Class of 2004. This demonstrates that while the overall cost of borrowing was relatively low for all three classes, the cost declined significantly and remained consistently low for the Class of 2005 and the Class of 2006.

Due to the current economic environment, beginning with July

2005, the interest rates for Federal Stafford and related consolidation loans have now begun to increase. Even with this increase in interest rates, it is expected that our increasing debt patterns will continue in the near future. With this in mind, Financial Aid's debt management curriculum continues to focus on the importance of "wise-borrowing" and effective debt management practices.

Debt Management Programs

The Financial Aid Office's long-standing debt-management program for students and JHS residents provides services in the form of seminars, individual counseling and informational publications. In the past, the Financial Aid Office has held a seminar series in the fall for JCHP and JCGS students, and a seminar series in the spring for JMC and JHS residents. For the fourth year, one seminar series was offered to all TJU students. The seminar series continues to be widely attended by all students and JHS residents. In the 2004-2005 year, with assistance from the Postdoctoral Affairs and Recruitment Department, the JCGS Post-Doctoral population was also invited to attend the seminar series. The positive evaluations from the population in attendance demonstrate that the seminar series will meet the future needs of the TJU student/resident population.

The seminar series (which includes segments on debt management, insurance planning, investment basics and considerations of signing a hospital, practice or employment contract) continued to receive high praise

and requests from the populations we serve for continuation on an annual basis.

The number of JHS residents accessing the individual debt-management counseling services provided by this department continues to increase. The same three factors noted in prior years (increase in the client pool as publication and word-of-mouth efforts have increased awareness of the available service, rising levels of medical-graduate debt, and expanded and somewhat more complex loan repayment options) may still be highlighted as the catalysts prompting this increase.

While requests for individual counseling from house staff have been on a steady incline, a significant change in the economic benefits of federal consolidation prompted an even greater increase in the number of requests from JHS residents and, comprehensively, TJU alumni during the 2005-2006 year.

Interest rates on Federal Stafford Loans, which are established each July 1 for a 12-month period, are calculated as the 52 week t-bill plus 1.7% while in school, grace or deferment and 2.3% while in repayment or forbearance for loans disbursed after July 1, 1998. Based on the current rate of the t-bill for the second straight year, Federal Stafford Loan rates and related federal consolidation rates have increased from 4.70% and 5.30% for periods of in-school, grace and deferment to 6.54% while in-school and 7.14% while in repayment.

Based on a change in federal regulations, all Stafford Loans issued after July 1, 2006 will be disbursed with a fixed interest rate of 6.8%. This rate will remain for the life of the loan. News of this increase in rates prompted many borrowers to consider consolidation as a means of locking in a lower rate for the life of the loan prior to the July 1, 2006 rate increase. Concerns about the process, who to consolidate with, what questions to ask consolidation lenders, pitfalls to watch out for, how the weighted average is calculated, etc., prompted a high volume of phone calls, personal appointments and email inquiries from house staff and alumni. Additionally, as prompted by educational loan lenders in April 2005, the Department of Education approved lenders to allow students to consolidate their federal loans while in school. This was allowed based on a loophole in the regulations that allows the student to elect to enter into repayment while in school, long enough for the loan to be consolidated. The student is then permitted to defer the loan for the remaining period of enrollment. However, students would give up the right to a six-month grace period after graduation. This practice was never previously allowed by Department of Education and has since been discontinued as of June 30, 2006. This change in practice, compounded by a 2% expected increase in the Federal Stafford Loan interest rate caused a fury of action by students and lenders to consolidate and “lock” the lower interest rate on federal loans before July 1, 2006. To assist all students in this process, a

series of information emails was sent and five information sessions were held.

The complicated nature of developing an effective repayment strategy, as well as periodic changes in the educational debt market (such as the interest rate increase noted above), will result in the continued reliance of TJU students, alumni, and JHS house staff on the Financial Aid Office’s counseling services.

BANNER and Other Technological Advancements

The Financial Aid Office continues to assess and expand online services for students. Efforts during the 2005-2006 year focused on the difficult task of moving from three student databases to one. The Banner Reimplementation project is expected to be completed in the upcoming 2006-2007 academic year. This process will greatly enhance customer service as well as student self-service through Banner Web.

For the 2005-2006 academic year, approximately 95% of JMC students took advantage of filing their Jefferson Financial Aid Application materials online. This is an increase from the previous year. However, as students’ comfort with online processes increase and the earlier incoming student notification of the necessary campus key, we expect this percentage to continue to increase next academic year. The online application continues to be refined to improve specifically the user friendliness of the process.

The use of two online advancements outside of BANNER con-

tinues to offer “student friendly” processes for students to apply for the Federal Stafford Loan Master Promissory Note (MPN) and to complete the federally required Entrance Interview counseling process. As many new students are not on campus prior to enrollment, these online processes have allowed students the ability to complete the MPN and Entrance Interview requirements and attain the necessary information prior to their arrival at TJU. Both provided ease for completing requirements in a timely fashion and surely assisted the “last minute” accepted student allowing for swift turnaround of the delivery of loan funds to students. It worked well for the University Office of Financial Aid as it relieved various administrative duties and enhanced customer service to students.

As technological capabilities are constantly improving, the University Office of Financial Aid intends to take full advantage of more online processes to improve the ease of applying for financial aid and our services to the students we accommodate.

Legislative Issues

In the 2005-2006 academic year, federal lawmakers added the requirement that all educational institutions that receive federal funds offer an educational program to celebrate Constitution Day. This educational celebration must take place annually on or around September 17. Sponsored collaboratively by the University Office of Student Financial Aid and University Activities Office, Constitution Day was celebrated this past Sep-

tember by offering free snacks, showing an educational short film, offering free copies of the Constitution and fun facts about the Constitution, and free flag pins. Expansion of this program will continue.

The Deficit Reduction Act and the Higher Education Reconciliation Act (HERA) of 2005, effective on July 1, 2006 and July 1, 2007 respectively, brings about major financial aid changes. Effective, July 1, 2006 the Federal Stafford Loan program interest rate changed, assigning all new loans issued July 1, 2006 or after a fixed 6.8% interest rate for the life of the loan. Additionally, the federal government instituted a new federal loan, the Federal GRAD Plus loan. The GRAD Plus loan is an unsubsidized loan offered only to “credit ready” graduate/professional students. In-school loan consolidation was also discontinued effective July 2006.

Committee of Student Advisors

The members of the Committee of Student Advisors (CSA) continued their important role as advisors in the delivery of high-quality services to students in all three colleges. During 2005-2006, this committee was comprised of the University Registrar, Director and Associate Director of Financial Aid, Senior Associate University Registrar, Associate Registrar, Manager of the Tuition/Cashier's Office and 58 student representatives. A senior member of the Jefferson Information Technology (Jeff-IT) team was added as a permanent member of the committee. At monthly meetings, current campus issues, such as the new campus email system and the new Jeff Café were widely discussed. CSA student members served as focus group for the Jeff Café and for the new Jefferson Fitness Center.

Committee activities included student participation in numerous advisory committees and continued assistance in the development of the FWS literacy program. This committee continues to prove beneficial to both students and the administration by promoting ongoing communication and enhancing important student services. Our goal is to further enhance the effectiveness of this committee for all three administrative areas that serve essential roles in students' academic careers.

Personnel Changes

Again, this year has been one of change in regard to the Financial Aid Office staff. Most notably, Joshua Young has been hired as Financial Aid Coordinator, replacing Genesis Muse.

Susan Batchelor, BS
Director

Table 1
Summary of Student Financial Aid, 2005-2006

Type of Award	Amount
Institutional Scholarships	\$2,854,842
Institutional Loans	\$1,095,150
Other Scholarships	\$2,893,784
Other Loans	\$30,331,991
Federal Work Study	\$110,717
Total	\$37,286,484

Table 2
Average Indebtedness* of Graduating Seniors**

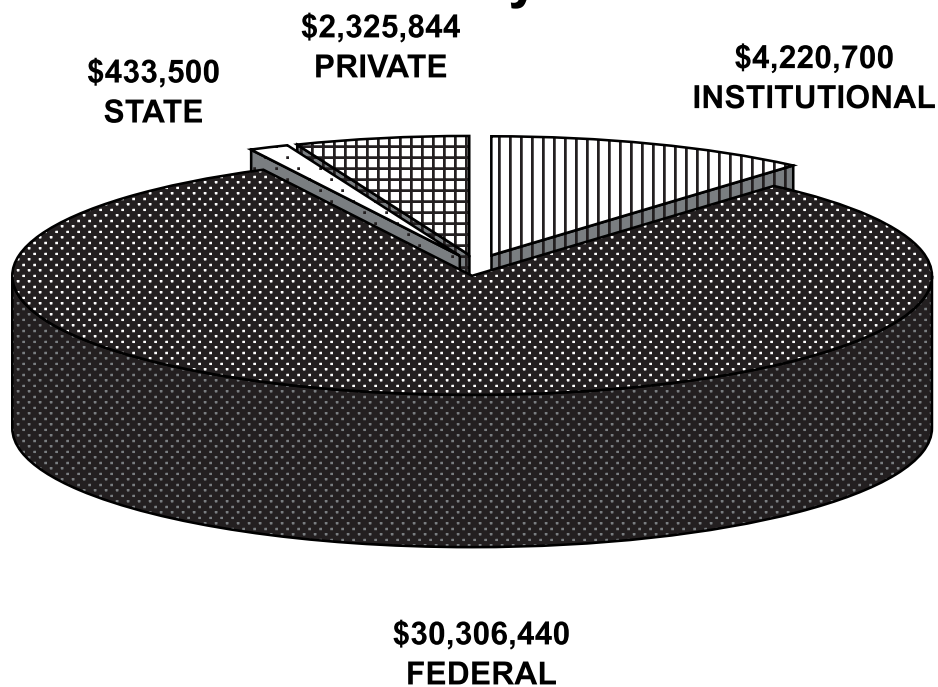
Graduating Class	# of Borrowers	Average Debt
2006	184	\$161,029
2005	195	\$145,472
2004	198	\$140,916
2003	151	\$136,439
2002	171	\$121,819
2001	159	\$111,176

* Includes funds borrowed prior to the student entering Jefferson Medical College.

** In calculating the average, the population included only those students with cumulative debt level greater than zero.

Figure 1

**Total Financial Aid
Jefferson Medical College
Academic Year 2005-2006
Distribution By Source**



TOTAL AID \$37,286,484

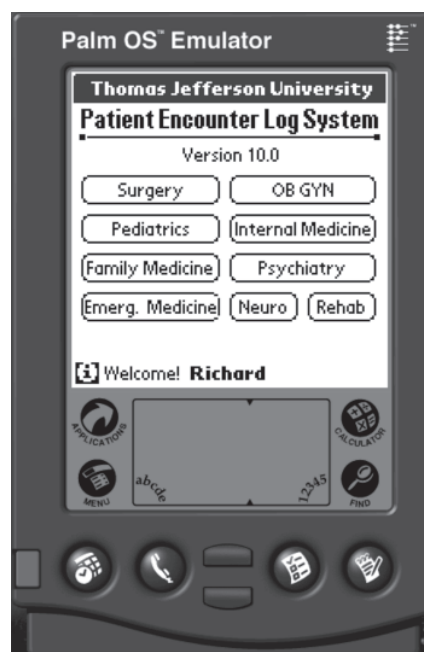
Office of Undergraduate Medical Education

The Patient Encounter Log System (PELS) is a PDA-based data collection system that has now been in place for three years in Surgery, Family Medicine, Pediatrics, Internal Medicine, Obstetrics/Gynecology, Psychiatry and Emergency Medicine. New modules for Neurology and Rehabilitation Medicine were implemented in July 2006. Submission of PELS data has been improved by making it a stated requirement on the Clinical Student Evaluation form. A total of 131,715 patient encounters were reported this year.

Feedback from students, clerkship coordinators and faculty continues to be critical for streamlining and focusing the data collection process. The PELS software underwent major revision during the spring of 2006 to assure that targets for numbers/types of patients each student should evaluate and physical exams and procedures that each student should perform are appropriate to meet clerkship learning objectives as well as LCME standards. Version 10.0 (released in July 2006) represents the ongoing collaboration between JeffIT (Richard Cowan, Michael Mei) and Jefferson Medical College (John Kairys, MD; Susan Rattner, MD; Dan Louis; Carol

Rabinowitz; Philip Wolfson, MD; Sherry Weitz; J. Lindsey Lane, MD; Sybil Fullard; Fred Markham, MD; Christine Jerpak MD; Carolyn Little; Abigail Wolf, MD; Deborah Cini; John Caruso, MD; Tonya Holloman, Joanne Gotto; Mitchell Cohen MD, Florence Spencer; Paul Kolecki, MD; Daniel Kremens MD and Stanley Jacobs MD).

Web-based summary reports have been generated this year for clerkship directors and coordinators. Affiliate reports will be developed for 2006-2007.



The PDA interface for the PELS is shown here.

The Dr. and Mrs. Robert D. Rector Clinical Skills Center

The Dr. and Mrs. Robert D. Rector Clinical Skills Center (CSC) is located at 833 Chestnut Street. This 9,000-plus square foot facility houses a 14-room standardized patient suite, classrooms for the high-tech simulators (Harvey and SimMan), two large multipurpose classrooms and support space for mannequins and models, standardized patients (SPs), staff and faculty.

This location will be the home for the clinical skills program until the anticipated opening of the new Dorrance H. Hamilton Building in 2007. Administrative responsibilities for the Center are shared by Dr. Rattner, Katherine Worzala, MD and Ms. Carol Trent. Core faculty and staff include Dale Berg, MD, Salvatore Mangione, MD, Joseph Majdan, MD, Ms. Judy Veloski and Ms. Melanie Fields. Support for testing is provided by Mr. Jon Veloski, Ms. Mary Robeson and Mr. Edward Nicks from the Center for Research in Medical Education.

Our clinical skills teaching and evaluation initiatives for the medical students continue to grow. CD-recorded SP histories, done this year by both first- and second-year medical students,

were again used to review communication skills during discussions in first-year MP21 and second-year ACM small group sessions. A very popular introduction to physical diagnosis is taught “off site” near the anatomy labs during dissection sessions for the first-year students. The core physical diagnosis course in the CSC for second-year students runs parallel to the organ systems in Foundations of Clinical Medicine and includes sessions with SPs, patients with real physical findings and simulations.

Third-year clinical skills sessions have been incorporated into the curriculum in multiple clerkships. Students in Internal Medicine learn smoking cessation counseling skills with standardized patients and cardiovascular physical diagnosis with Harvey. The obstetrics/gynecology skills session includes use of models/mannequins for instruction on the breast and pelvic exam, cervical dilatation, vaginal delivery, female foley catheter insertion and suturing/knot tying as well as a pelvic examination of a SP. The third year pediatrics sessions include physical diagnosis training with models and children, an asthma treatment module and practice of technical skills (immunizations, blood drawing with mannequins). The third-year surgery clinical skills sessions include sessions on suturing, knot tying, male foley placement, nasogastric tube and intravenous catheter insertion. The family medicine clinical skills sessions focus on the musculoskeletal physical examination. The psychiatry clinical

skills session focuses on history taking and communication skills. This includes role playing and reviewing CDs of patients with mental health disorders. The third year, starting in 2006-2007, all students completing Surgery, Obstetrics/Gynecology and Neurology/Rehabilitation Medicine clerkships will be required to pass a “mini-OSCE” at the end of the clerkship which will be incorporated into the final clinical evaluation.

A one-station SP exam on interviewing and a one-station physical diagnosis SP exam were conducted with the first- and second-year students, respectively. All third-year students participated in an 11-station exam. An end-of-year Objective Structured Clinical Examination (OSCE) was administered to all third-year students in April and May in the Rector Center. Students must achieve a passing score as a requirement for graduation. This examination has been implemented to assure minimum competence in basic clinical skills as well as for preparation for the USMLE Step 2CS examination. The exam evaluates data gathering, communication, and interpersonal skills. The OSCE cases and grading structure were developed by Katherine Worzala, MD; Dale Berg, MD; Salvatore Mangione, MD; Jon Veloski and Mary Robeson in collaboration with Drs. Rattner, Callahan, Caruso, Cohen, Markham, Lane, Wolf and Wolfson.

Procedures and patient management using SimMan are the focus of sessions with fourth-year students, taught by Paul Kolecki MD (Department of Emergency

Medicine) during their Emergency Medicine clerkship. Dr. Berg teaches an Advanced Physical Diagnosis elective for fourth-year students that includes a geriatrics OSCE. In addition, fourth-year medical students who participate in the Internal Medicine sub-internship do clinical skills rounds weekly with clinical skills faculty.

Teaching and evaluation activities have also expanded for both residents and other health professionals programs. The Center hosted an OSCE for incoming TJUH surgical residents in July 2005. Internal Medicine conducts weekly mock codes with SimMan for interns/residents. In addition the Clinical Skills Center faculty have expanded teaching in Internal Medicine to include weekly bedside teaching rounds for interns and residents. The Department of Emergency Medicine interns/residents perform weekly activities to evaluate management of emergent patient problems using SimMan.

Faculty from the Department of Family Medicine joined the CSC faculty four times during the year to train residents in core procedures such as lumbar puncture and deliveries. The CSC also hosted Family Medicine residents from Lankenau for a clinical skills training workshop which included central line placement, lumbar puncture and thoracentesis.

The Department of Obstetrics and Gynecology interns uses the CSC quarterly for simulations using SimMan modified to become “SimWoman.”

The inter-professional teaching session, with Jefferson College of Health Professions Nursing Program senior nursing students and fourth-year medical students, was held in May. The students worked together running an unsuccessful resuscitation of SimMan and “breaking the bad news” to the family (an SP). After the encounters, the students are debriefed by faculty from both JCHP and JMC. This initiative was again led by Drs. Katherine Worzala and Karen Glaser for JMC and by Dr. Agnes Morrison for JCHP. These efforts yielded data that clearly established the need to conduct a needs assessment and faculty development in team building to ensure successful development of an inter-professional curriculum. A retreat, attended by staff and faculty from the University (JMC and JCHP) and TJUH, and facilitated by Robert A Doughty, MD, PhD, Dean of the Nemours Center for Medical Leadership, was held on June 27, 2006 to discuss key issues and set the agenda for the next stages of the Inter-professional Education Initiative.

Mid-term and final exam OSCEs for the Jefferson Graduate Nursing Department were conducted at the CSC. SimMan was also used by the Jefferson Graduate Nursing program for teaching advanced lifesaving techniques.

The nursing students from Drexel continued their OSCEs at the CSC during 2005-2006. Beginning in 2006-2007 Philadelphia University’s physician assistant students and Christiana’s Family Medicine and Osteopathic Family Medicine intern/residents will use the CSC for OSCEs.

Committee on Curriculum

The Committee on Curriculum has had another busy and productive year. Chaired by Philip J. Wolfson, MD, the Committee includes representation from course and clerkship directors, faculty-at-large, the Dean’s office and from second-, third- and fourth-year JMC classes. This year’s efforts focused on monitoring the new and existing courses and clerkships and planning for reorganization of the clinical curriculum.

In March, the Curriculum Committee surveyed the Class of 2006 regarding their impressions of how well the Jefferson Medical College Learning Objectives had been met during medical school. This 35-question survey that includes questions about knowledge, attitudes and skills (available on request) was first administered in 2004. Our graduating students again ranked JMC highly in all areas with notable improvements in the ability to perform histories and physical examinations and understanding of the need to be life-long learners. The overall mean of the ratings has increased from 3.90 to 4.12 ($p < .01$).

Curriculum Highlights

Interclerkships

Three very successful Inter-clerkship Sessions were presented this year on the first days of Blocks 3, 5 and 7. These sessions emphasize interdisciplinary topics with major public health impact. The first two topics were Nutrition and Obesity, moderated by Fred Markham, MD (Department of Family Medicine) and Improving Patient Safety, moderated by

David Nash, MD (Department of Health Policy). Presentations were made by Jefferson and guest faculty in the mornings of each day, followed by afternoon workshops. The third session on Professionalism was facilitated by Gerald Isenberg, MD (Department of Surgery) and Timothy Brigham, PhD (Office of the Dean). In the morning, students and faculty—who later facilitated afternoon small group discussions—discussed video clips of two common ethical dilemmas faced by third-year students, using the audience-response system to stimulate debate.

National Board of Medical Examiners Clinical Subject Examinations

After pilot testing and faculty review last year, the National Board Subject Examinations (NBME) replaced “in-house” clerkship exams in Surgery, Pediatrics, Psychiatry and Obstetrics/Gynecology. This program is coordinated by Dr. Glaser and Deborah Tolson (Academic Affairs/UME) and Mr. Jon Veloski (Center for Research in Medical Education and Health Care) in collaboration with the clerkship coordinators (Ms. Sherry Weitz, Deborah Cini, Florence Spencer and Sybil Fullard). This year the Internal Medicine exam was added with the assistance of Ms. Joanne Gotto and Tonya Holloman.

Philadelphia College of Physicians Humanism in Medicine Project

Drs. Rattner and Glaser serve on the Advisory Board to the College of Physicians Initiative on Humanism In Medicine. JMC

has participated in several Visiting Scholar programs. John Stone, MD, gave a lecture in the first year MP-21 course and also offered a poetry workshop to medical students throughout the city. Jack Coulehan, MD presented a Grand Rounds to the Department of Family and Community Medicine. Perri Klass, MD gave a workshop that was open to medical students and residents.

We look forward to welcoming Rita Charon, MD, PhD to present a session on patient narratives to the first year class in ICM I and Rafael Campo, MD to present at Grand Rounds in Family Medicine this year. Jefferson students will be invited, as they were last year, to a Visiting Scholars Open House in early September.

Course Reviews

Each required course and clerkship is reviewed in detail every one to two years by student liaisons, the course or clerkship director, the Senior Associate Dean for Academic Affairs/UME, and the Chair of the Curriculum Committee. This is followed by a summary review by the full Curriculum Committee. Courses and clerkships reviewed this year included Human Form and Development, Molecular and Cellular Basis of Medicine; Systems I: Physiology and Microscopic Anatomy; Neuroscience; Physical Diagnosis; Foundations of Pathology and Pharmacology; Immunity, Infection, and Disease; Foundations of Clinical Medicine; Scientific Foundations of Clinical Medicine; Neurology/Rehabilitation Medicine.

Reorganization of Years 3 and 4

At the Curriculum Retreats in May 2004 and May 2005, ideas for redesigning the clinical curriculum in the third and fourth years were discussed using the Accreditation Council for Graduate Medical Education (ACGME) competencies as the starting point. Over the next few months, three "redesign teams," each comprised of 10-12 students and faculty from the Jefferson main campus and affiliates, deliberated independently over a six-month period, developing three potential curriculum models that were presented at a third retreat in November 2005. The proposals with the greatest consensus were discussed and approved by the Curriculum Committee in December 2005. Plans for 2006-2007 include 1) offering a "Pre-clerkship Pilot Program" in July 2006 designed to review of key clinical information and better prepare students for beginning their third year clerkships 2) development of a series of case-based didactics across all clerkships to both coordinate the curriculum and create a more interactive learning environment and 3) continue planning for the restructuring of the third and fourth year clerkships for July 2007.

Committee on Student Promotion

Thomas Klein, MD (Department of Obstetrics and Gynecology) was appointed Chairman of the Committee this year. The Committee on Student Promotion (COSP) reviewed and took action on more than 200 student issues this year in addition to hearing appeals and administrative review of USMLE results

and grade changes. This year there were more than a dozen individual subcommittee meetings for the purpose of planning appropriate student remediation. The recommendations made at these meetings have allowed for the students with deficiencies to receive the appropriate treatment and/or remedial process and, in the majority of cases, move ahead in the curriculum.

Ms. Myeshai Brooks, Educational Coordinator for the Office of Undergraduate Medical Education, provides staff support to the Committee. In addition to preparing the meeting agenda and minutes, she has the responsibility of monitoring and maintaining the computer database, COSPTool. The database allows for easier, more efficient and more accurate record-keeping.

Faculty Development Activities

This office is pleased to support faculty development efforts of the College. In 2005-2006, the following presentations were made:

Dr. Rattner

- Interactive Techniques for Lecturing (September 2005)
- Peer Review of Lecture, Syllabi, and Web-Based Learning Aids (September 2005)
- Evaluating Performance: Overview of Clinical Grading at Jefferson (Affiliation Day, February 2006)

Dr. Glaser

- Can We Teach Professionalism? (April 2006)

Dr. Herrine

- Best Practice in Lecturing (September 2005)

- Peer Review of Lecture, Syllabi and Web-Based Learning Aids (September 2005)

Professionalism and the Honor Code

This was a very busy year for the three groups working on professionalism initiatives. The Professionalism II Task Force, co-chaired by Dr. Glaser and this year by Molly Eaton (JMC '07), met regularly to develop plans to further highlight our efforts regarding professionalism within the culture of Jefferson Medical College. Strategies are being planned that encourage students and faculty to “live” the values in the Honor Code. Molly Eaton and the student representatives on the Task Force continued the tradition of awarding peer-reviewed awards for professionalism. Several members of the first-, second- and third-year classes were awarded plaques for their demonstration of professionalism and professional values. These awards will be ongoing and awarded to several students each year.

In April 2006, Molly Eaton and Karen Glaser were asked to Chair a session on Honor Codes and the Promotion of Academic Integrity at the spring meeting of the Northeast Group on Student Affairs in Philadelphia.

The Faculty Professionalism Task Force, co-chaired by Stanton Smullens, MD (Department of Surgery) and Dr. Glaser, was charged by the Dean to develop an aspirational statement of Professionalism at Jefferson and also to consider the adoption of a more formal faculty honor code. As a result of this work,

the Executive Council and Professorial Faculty of the Medical College approved, with minor revisions, the adoption of the Student Honor Code as the Jefferson Medical College Honor Code for students, residents and faculty. These efforts prompted a re-vitalization of the faculty Committee for Continuing Evaluation of the Code of Professional Conduct. This committee, now chaired by Dr. Smullens, was renamed the Committee on Professionalism by a change to the JMC By-laws. The committee has a new complement of members and an expanded charge that includes facilitating and encouraging initiatives on professionalism in all academic departments.

In January 2006, the Curriculum Committee formed a task force of students and faculty to specifically review and make recommendations for teaching professionalism through all four years of the curriculum, with attention to the third and fourth years. Gerald Isenberg, MD (Department of Surgery) chairs this Professionalism Curriculum Development Task Force.

Foundations of Clinical Medicine

Foundations of Clinical Medicine (FCM) is a multidisciplinary course designed to prepare second-year students for the third-year immersion in clinical medicine. It has been developed in response to curriculum objectives to teach a unified, interdisciplinary, organ system-based alternative to the traditional discipline-based curriculum. This course includes content from what was formerly taught in discipline-based courses in

pathology, pharmacology, physical diagnosis and Introduction to Clinical Medicine. Interactive teaching, large and small group teaching sessions in Application of Clinical Medicine and hands-on instruction in the Clinical Skills Center are used to amplify and clarify the didactic content of this course. Several of the organ-based review sessions are now incorporating Team-Based Learning as an interactive and faculty-efficient teaching strategy. This effort will be expanded in the coming years in order to serve the small-group teaching needs of our larger class size.

Students are required to achieve a passing grade on each organ-system examination in order to successfully complete the FCM course. A growing database of examination items has been developed to improve the quality of examination items as well as the ability to track the performance of the students from year to year.

A very effective student-faculty interface has been developed for this course via the Student Liaison Committee. Class representatives meet with course directors and Drs. Wolfson and Rattner monthly to review student and faculty suggestions and concerns in “real time” as the course is in progress. Student feedback about this course continues to be very positive. It is of note the NBME Step 1 scores have also improved. Plans for next year include expansion of the FCM database in CurrMIT to include lecture keywords.

The Longitudinal Primary Care Clerkship (LPCC)

This educational initiative has now completed its fifth year. It is a collaborative effort among the Dean's Office, the Departments of Medicine, Pediatrics and Family Medicine, and our affiliated programs at DuPont Hospital for Children and Christiana.

The LPCC places students in primary care practices for a half day per week for 24 weeks. Emphasis is on enabling students to see patients in follow-up, as well as on learning about clinical problems and management. This clerkship runs concurrently with the block clerkships in medicine, pediatrics and family medicine; the students will do these rotations consecutively at Delaware affiliates. Sixty-eight students and 19 preceptors have participated to date. It has been highly rated by all participants. Three new preceptors have volunteered to host students, and 12 students have enrolled for 2006-2007.

Area Health Education Center Initiatives

The Pennsylvania Area Health Education Center (PA AHEC)

JMC has now completed its sixth year as medical school liaison to the Northeast Pennsylvania AHEC (NEPA AHEC), a member of what is now the Pennsylvania-Delaware AHEC system (see below). This initiative initially received core funding from HRSA through Penn State University. It is now supported with a combination of state, federal "model" and foundation funds.

The NEPA AHEC office is located on the campus of Keystone College in LaPlume, PA.

This year the AHEC was fortunate to recruit Ms. Vera Walline, formerly Program Coordinator, as the new Executive Director. Dr. Michael Rosenthal (Department of Family Medicine) and Dr. Rattner continue to serve on the Board of Directors. Dr. Christine Jerpbak (Department of Family Medicine) serves as Medical Director.

The AHEC is involved in many local health and health education initiatives. Third-year clerkships in Family Medicine, Internal Medicine and Surgery are in place at the Guthrie Clinic/Robert Packer Hospital in Sayre, PA. A family medicine elective was also offered this year.

The Delaware AHEC

Delaware has now completed its third year as the eighth region in this interstate model. Drs. Rattner and Rosenthal serve on the Board of Directors, and Dr. Rosenthal is also Medical Director. During the past year, the DE AHEC collaborated with Jefferson's Department of Family and Community Medicine and the Office of Continuing Medical Education to present a conference on infant mortality at the University of Delaware. The DE AHEC, thanks to the tireless leadership of Board Chairman Sherman Townsend and under the direction of Executive Director Melissa Flynn, has been very successful in securing the necessary State matching funds, as well as foundation support for its health education initiatives that include development of a medical student preceptor network throughout the State.

Bridging the Gaps (BTG)

This summer internship program continues under the direction of Maria Hervada-Page, MSS. It is a popular summer work option for JMC and College of Health Professions students. BTG is recognized regionally and nationally as a model of inter-institutional, statewide collaboration in the area of interdisciplinary community health education and service learning. In 2004-2005, Jefferson was awarded approximately \$37,221 from public and private sponsors for partial support of 24 students and for core faculty support, as well as \$51,863 in Federal Work Study funds for student stipends.

Faculty from Family Medicine and Nursing teamed with community preceptors and supervised community health sites. Students work with children, teens, elderly, the homeless and addicted populations. This work was presented at the fall 2005 Bridging the Gaps symposium. Twenty-five students (13 medical students, three nursing students and nine occupational therapy students) have been selected to participate in the summer 2006 program.

Susan Rattner, MD, MSCE

Senior Associate Dean for Academic Affairs/Undergraduate Medical Education

Karen Glaser, PhD

Associate Dean for Academic Affairs/Undergraduate Medical Education

Steven Herrine, MD

Assistant Dean for Academic Affairs/Undergraduate Medical Education

Division of Graduate Medical Education



The Division of Graduate Medical Education provides oversight, guidance, and support to all Graduate Medical Education programs at Thomas Jefferson University Hospital and the affiliates for which the Hospital is the sponsoring institution. The Division, consisting of David L. Paskin, MD, Senior Associate Dean for Affiliations and GME; Cynthia G. Silber, MD, Associate Dean for GME; John A. Thomas, GME Database Manager; and Connie Baker, Administrative Assistant, work in concert with the Office of House Staff Affairs headed by Debra Cifelli. The Hospital and the Medical School have a common goal of achieving excellence in Graduate Medical Education. The GME division works closely with both the division of Undergraduate Medical Education and with the Office of Faculty Affairs to support a unified educational effort in the continuum of medical education.

New GME Programs

During this year, TJUH received ACGME approval for three new GME programs in Musculoskeletal Radiology, Sleep Medicine, and Pediatric Anesthesiology; is awaiting ACGME approval for a fellowship in Vascular Surgery; and assumed sponsorship of the

Ophthalmology residency from Wills Eye Hospital and the Pediatric Anesthesiology and Pediatric Orthopedic fellowships from A.I. DuPont. The Division continues to serve both evaluative and consultative functions. The internal site visits performed at midcycle are a highly productive tool for ongoing quality improvement in our GME programs. The Division continues to refine its internal review process to serve our GME programs. We have expanded our services to include intensive consultation and intervention, in cooperation with Program Directors, for programs that require major revisions in order to come into compliance with new RRC regulations. In addition, this year we have implemented an RRC site visit preparation process which includes careful review and editing of all Program Information Forms (accreditation visit applications), and departmental preparation sessions prior to the site visit. These have been extremely well received by the Departments.

GME Committee

The GME Committee continues to increase its involvement in, and oversight of, all aspects of residency education in the hospital. Over the past five years un-

der the leadership of Dr. Michael Vergare, the Committee has further developed its role as a major resource for the ongoing development and implementation of GME efforts at Jefferson. As we move into the new academic year, the GME Committee anticipates devoting significant effort to two major initiatives: the development of an institutional curriculum in GME that focuses on topics common to all residency programs, and defining and developing the role of the residency coordinator. As we move “from compliance to excellence” in GME, it is anticipated that the GME Committee will be deeply involved in all aspects of GME, and will oversee GME strategic planning for the institution.

ACGME Outcome Project

The ACGME Outcome Project and the implementation of competency-based education have been initiated in all of our GME programs, and continue to be monitored by the Division. As of 2006, the ACGME has moved into the third phase of the Outcome Project: full integration of the Competencies, and of their assessment, with learning and clinical care. The focus of the third phase is the use of resident performance data and external measures (such as patient satis-

faction surveys and clinical quality indicators) to make data-driven improvements in residency education programs. The Division is assisting programs in the identification and development of assessment tools towards this purpose, and in the development of processes within the programs to ensure that resident and program performance levels are accurately assessed, with the goal of making targeted and effective program changes to improve education.

GME Toolkit

In 2005, the Division selected and purchased a software product for management of GME data. The GME Toolkit, a Web-based product, allows all scheduling, evaluation, and duty hours monitoring to be performed online, and allows us to collect important data about our residents and faculty while enhancing compliance. Through the leadership of John A. Thomas, GME Data Manager, 70% of our programs are using the GME Toolkit for its evaluative functions as of this writing; a number of these programs are using other modules as well, including the duty hours monitoring and the procedure tracking modules. The software has been extremely well received, and we anticipate that all of our GME programs will be running their evaluative functions on this software as of November 1, 2006.

The implementation of the GME Toolkit throughout the institution has allowed us to address a previous requirement that was difficult to manage: the evaluation of faculty teaching. In conjunction with the Center

for Research in Medical Education, a faculty evaluation form for residents to use in evaluating faculty teaching skills, was developed and validated. This form was approved by the Dean and the GME Committee for universal use throughout the university, and is providing valuable and much-needed data on faculty teaching. This universal faculty evaluation form allows faculty to compare their teaching skills with those of the entire university faculty, as opposed to only within their individual departments, and will provide valuable information to the Appointments and Promotions Committee for those faculty seeking advancement in the Educational and Scholarship track. The other IT initiative planned for the upcoming year is the development of an institutional GME Website, with the purpose of continuing to build a sense of community among the GME programs at TJUH, and improve communication throughout the GME programs.

The Division continues to maintain an interest in research. A paper based on the development and pilot use of the aforementioned faculty evaluation form has just been accepted for publication in Medical Education. Other papers are in development with the extensive data on faculty teaching skills now available from the Toolkit. In addition, the Division presented at the annual GRA meeting of the AAMC this year as part of a panel in developing excellence in residency education programs.

The next Program Director Retreat is planned for September

29th. As part of the Division's commitment to an institutional curriculum in cross-disciplinary topics, this Retreat will present a fully-developed curriculum in Professionalism for GME Programs, developed by the faculty of the Clinical Skills Center using standardized patients. In addition, an update of the Program Directors Manual is planned.

Affiliations Committee

The Affiliations Committee met as part of the Affiliations Day program, and the Office of Faculty Affairs presented a day and a half symposium on Evaluation and Teaching. All of the affiliates were represented. Great appreciation was expressed to the representatives of all the affiliates for their very much-appreciated role in providing excellent clinical exposure for our third- and fourth-year medical students. Faculty appointments and promotions of affiliated faculty, now managed by the Affiliations Division in the Deans Office, has been efficient and very effective. This has been a great addition for our very much appreciated affiliated faculty.

Medical students continue to have excellent educational experiences at our affiliated teaching institutions, as indicated by review of clerkship evaluations. The contributions of the faculty and residents throughout our affiliated network remain superior, and are greatly appreciated by the students and the College.

As we expand our enrollment numbers new affiliates are necessary. We are very fortunate to have added Reading Hospital to our core clerkship ranks as of

July 2006 and then York Hospital beginning July 2007.

The longitudinal study of residents continues, which provides program evaluations by residents and fellows at each level of training, in addition to annual program director evaluations of each resident and fellow. These evaluation tools are currently being used at all Jefferson Health System institutions that sponsor GME programs. It is hoped that this data will provide new in-

sights into the process of graduate medical education, and supply material for new research in this area.

The mission of the division of Graduate Medical Education is to link undergraduate and graduate medical education at Thomas Jefferson University Hospital and the affiliates in order to promote faculty development, as well as excellence in resident education and teaching. This, in turn, will provide

the Jefferson Medical College student with a consistently excellent cadre of teachers, and will deliver outstanding clinical faculty to Thomas Jefferson University Hospital and affiliates.

David L. Paskin, MD

Senior Associate Dean for Graduate Medical Education and Affiliations

Cynthia G. Silber, MD

Associate Dean for Graduate Medical Education



Office of Continuing Medical Education

The Office of Continuing Medical Education (OCME) at Jefferson Medical College is part of the Dean's Office and is responsible for Jefferson Medical College's ability to offer continuing medical education credits in pursuit of its overall mission of education, research and patient care. The Office of CME at Jefferson Medical College is nationally accredited as a provider of continuing education for physicians by the Accreditation Council for Continuing Medical Education (ACCME) in the coveted category of "accreditation with commendation."

Leadership

In FY 2006 Joseph L. Seltzer, MD, Professor of Anesthesiology since 1980, was appointed Senior Associate Dean for Continuing Medical Education. Dr. Seltzer provides a focus on clinically relevant continuing education and research in continuing medical education, and stresses the importance of service to the University community.

Jefferson Medical College's Committee on CME, a standing committee of the medical school, is integrally involved in the review and development of appropriate activities certified for AMA Category 1 credit. During FY

06, the Committee was chaired by Dr. Geno Merli, Ludwig A. Kind Professor of Medicine, Director of Division of Internal Medicine and Vice Chairman of Clinical Affairs. The Committee on CME is responsible for the review and approval of all Jefferson-sponsored CME activities. The Committee also sets policy and direction for the overall CME program at Jefferson. There are 15 members of the Committee on CME, representing 10 departments/divisions of the Medical College.

Daily operations of the OCME are supervised by the Director, Jeanne G. Cole, MS. She is responsible for JMC's compliance with national accreditation standards, developing educational designs, overseeing and improving logistical operations, fund raising, and identifying and securing new opportunities. The combined efforts of the OCME staff secures the required outside funding for many of JMC's CME activities, which provides funds for the OCME operating budget. In addition to the Director, two masters-prepared CME specialists are on staff, and OCME functions are ably supported by administrative and secretarial members. Balancing the tension between efficient staffing and developing new projects continues.

Over the past years the Committee focused its efforts on (1) advancing the role of CME within JMC, (2) developing collaborative relationships with other organizations to identify and fund mutually beneficial educational activities for physicians and other healthcare professionals, and (3) reviewing and understanding new ACCME Standards for Commercial Support, especially as they relate to conflict of interest in CME activities. In pursuit of these goals, the OCME and the Committee continue to work together on behalf of Jefferson.

Accreditation

In FY 06, the accredited status of Jefferson's CME program was reviewed by the Accreditation Council for Continuing Medical Education (ACCME). Jefferson's CME Program was designated as "*Accredited with Commendation*" by the ACCME at its July 14, 2006 meeting. This is the second time that Jefferson's CME program has been recognized as Exemplary by the ACCME, a ranking achieved by fewer than 15% of all ACCME accredited providers.

Accreditation with Commendation is the highest level of accreditation given for CME providers, and is reserved for select programs that demonstrate Exemplary Compliance in multiple areas.

To be considered Exemplary, a program must go well beyond simply meeting the basic requirements by showing “innovation and creativity” in addressing the components that make up the ACCME’s Essential Areas and Standards.

Jefferson entered this CME reaccreditation cycle from a strong vantage point, having received Accreditation with Commendation at its last review in July 2000. Over the past 18 months, the Office of CME (OCME) worked through the reaccreditation process of the Accreditation Council for Continuing Medical Education, a process that involved all OCME staff members. Jefferson’s CME Committee reviewed and approved the self study document of over 100 pages that was submitted to the ACCME in January. As part of this process, the ACCME randomly selected 20 complete documentation files from recent Jefferson-sponsored CME activities for in-depth review. The Site Survey occurred in March 2006, when OCME members participated in a face-to-face review of the overall program with ACCME Site Surveyors.

The ACCME awarded TJU a six-year accreditation, the highest possible designation. The ACCME further recognized Jefferson with commendations in the following areas of the ACCME Essential Areas and Standards:

- Mission
- Planning
- Needs Assessment
- Overall Program Evaluation

- Administration
- Standards for Commercial Support / Scientific Integrity

Jefferson’s CME Mission

Purpose

Jefferson Medical College CME considers the lifelong professional development of physicians to be a dynamic, organic process. The Jefferson Medical College Office of CME is dedicated to developing, delivering, and evaluating quality educational experiences/opportunities that stimulate, educate, and empower physicians to provide the highest standard of care throughout a lifetime of professional practice. Drawing upon its combined strengths in educational, research, and clinical expertise, Jefferson Medical College Office of CME endeavors to equip physicians with the knowledge, skills and attitudes necessary to remediate, maintain, and/or enhance their ability to deliver world class medical service across the continuum of care to patients, their families, the public, and the profession. Jefferson Medical College CME is an academic enterprise guided by the principles and goals of academic medicine. Jefferson Medical College CME is committed to drawing on its experiences as well as the body of CME theory and research to elevate the effectiveness of its CME Program and to advance the field of academic continuing education. The CME Mission maintains congruence with the overall educational mission of Jefferson Medical College of Thomas Jefferson University, maintaining its place along the continuum of medical education.

Content

The subject matter appropriate to Jefferson Medical College’s overall CME educational program reflects the broad scope of education, research and clinical practice at Jefferson, and therefore may encompass the entire breadth and depth of the art and science of medicine. Activity content may be organized around medical knowledge and patient care (specific medical specialties or subspecialties, disease states and processes), practice or systems based processes, public health topics, research findings, professionalism, and/or interpersonal and communication skills. In addition, topics that improve the practice of medical education itself may be included. The choice of content is dependent on the strategic interests of the institution, the availability of financial resources from either internal or external sources, and the consistency of the potential activities with Jefferson’s mission.

Target Audience

Jefferson’s target audiences are representative of all customers of CME, including full-time and volunteer faculty, members of medical staffs in teaching and health system affiliates, regional health professionals, and national and international attendees. The intent of an activity is the determining factor in the appropriate selection of the target audience. Depending upon the intent, learners may be drawn from regional, national and/or international populations of physicians across all specialties and at all levels of training. Interdisciplinary audiences are sought when appropriate.

Types of Activities Provided

Jefferson Medical College CME uses a wide variety of educational formats, from traditional to experiential and innovative, to best meet learners' needs and to give the learners opportunities to match their preferred learning style to a spectrum of educational delivery systems. Formats can include but are not limited to, live offerings including lecture-driven conferences, small group work, experiential learning opportunities and one-on-one educational experiences; regularly scheduled conferences; distance learning through telephone, television and Internet technologies; and asynchronous enduring material formats including print, audio, video, computer-based and journal-based instruction. Jefferson Medical College CME also has the ability and demonstrated success in partnering with other accredited and non-accredited institutions/organizations when appropriate and congruent with the overall mission of the College.

Expected Results

Evaluation stands at the center of this process as the essential driving force necessary to maintain and/or improve educational quality. Each activity will be evaluated based on the identified intent of the educational offering. Information derived from the evaluation of individual activities is used as formative and summative feedback in the quality assessment of the individual activity and contributes to the quality improvement and enhancement of the overall Jefferson Medical College CME educational program.

It is expected that individual continuing medical education activities will be rated well by participants in meeting stated objectives, provide balanced and rigorous information, and stimulate positive responses from participants in terms of impact of the activity on knowledge, skills, attitudes, patient care and/or future actions. Quality improvement efforts in CME are based on reviewing these data through the Performance Monitoring System, which enables us to analyze and benchmark both individual and overall results. This information is the foundation of our continuing improvement efforts and the basis of quality education research.

Certified CME Activities

The OCME manages a large variety of CME activities certified for Category 1 credit, including typical medical school activities like Grand Rounds and local/regional symposia. Additionally, Jefferson maintains a national CME presence through the certification of enduring materials, national symposia, journal-based CME, and national lecture series as well as the newly emerging area of Internet CME (<http://jeffline.jefferson.edu/jeffcme/>).

American Medical Association (AMA) Category 1 credits are awarded through the Office of CME for sponsored and jointly sponsored activities, regularly scheduled series, and enduring materials.

During the 2005-2006 academic year, the Office of CME certified 185 activities totaling over 2,125 Category 1 credits, serving more than 20,000 participants.

Focus on Educational Effectiveness

During the past year, the Office of CME utilized a wide variety of educational formats from traditional to innovative to best meet learners' needs and give them opportunities to match their preferred learning style to a spectrum of educational delivery systems. These included "face-to-face" conferences offering lecture-driven meetings, case-based learning groups, experiential learning opportunities and one-on-one educational experiences. In addition, distance learning opportunities through the Internet and other technologies, instructional materials including print, audio, video, and journals are provided. The OCME successfully partners with other accredited and nonaccredited organizations when appropriate to expand the reach of Jefferson's CME programming. These partnerships provide revenue streams that enable the OCME to contribute to the College's "bottom line" and bring new revenues to those departments and divisions that produce CME activities.

While it is necessary to develop systems and documentation processes to assure our continued status as a nationally accredited CME institution, the Office of CME strives to focus on the educational effectiveness of JMC's CME programming. Evaluation stands at the center of this process as the essential driving force necessary to maintain and/or improve educational quality. Over the past year, evaluation tools and methods were refined in order to enable the OCME to provide timely and worthwhile evaluation data on activities it

develops and certifies. As data are gathered from these evaluation activities, we will be able to expand research efforts on the impact of JMC CME activities on participant behavior, and to study what activities are most effective. These research efforts, which distinguish JMC OCME from many other academic CME providers, contribute to quality improvement and enhance the overall Jefferson Medical College CME educational program.

Highlighted Educational Activities

In addition to providing certification services for departmentally sponsored CME, OCME is integrally involved with JMC departments and divisions in developing and implementing cutting edge educational activities for practicing health care professionals.

The OCME has partnered with the Department of Anesthesiology and the JUP Clinical Care Committee to develop new types of CME activities focused on practice-based performance improvement efforts at Jefferson. These activities are unique in the nation, and have been the subject of a presentation at the April 2006 Society for Academic CME Meeting. The projects are:

Inpatient: Anesthesia EHR Project

1) Timely Administration of Antibiotics in Surgical Patient

Outpatient: JUP Clinical Care Committee

2) Psychiatry: Physician Self Assessment of Clinical Documentation

Additional projects will be developed through these collaborations.

OCME continues strong partnerships with the Headache Center of the Department of Neurology, the Gastroenterology and Hepatology Division of the Department of Medicine, the Department of Health Policy, Department of Family and Community Medicine, the Division of Ultrasound of the Department of Radiology, and AISR of the Scott Library. Many of these have resulted in growth in long-established CME offerings. For example, the GI Division's 26th Annual Advances in GI program held in June 2006 helped the division maintain its position as the premiere GI educational event in the region; the Department of Family and Community Medicine's 29th annual Eastern Shore Medical Symposium provides a valuable review and update to a full house. The success of these activities not only advances Jefferson's reputation as a resource for physicians who must update their knowledge and skills to provide the best care, they also add to the financial viability of their sponsoring departments by generating revenue.

A unique collaboration between TJUH and OCME continues to bring live surgeries performed at TJUH to a national audience in the form of live and archived Webcasts through the OCME Web site. Webcast topics expanded this year to include Minimally Invasive Treatment Alternatives for Varicose Veins and Computer-Assisted Partial Knee Replacement, bringing the active archive library to eight topics.

In response to new physician licensing requirements, the

OCME worked with Thomas Jefferson University Hospital and others at Jefferson to develop and certify CME activities in the area of patient safety, and has developed standard methods for identifying patient safety-related activities that occur as part of grand rounds or other regularly scheduled series. Given that Pennsylvania now requires a specific number of certified hours in patient safety to maintain licensing, the OCME adapted its online CME transcript retrieval system (JeffETC) to include reports of these activities as a service to our physician community. The OCME also provided assistance in identifying and documenting patient safety related CME credit to those physicians who received audit letters from the Pennsylvania State Medical Board.

The OCME also works in partnership with other JMC departments to facilitate training and educational programs for employees of several pharmaceutical manufacturers. By applying OCME's expertise in program development and management to this area, revenue is generated for the OCME and other departments in support of JMC's educational mission.

Academic and Research Activities

As an educational unit within a leading academic institution, the OCME seeks out opportunities to present its work in CME to a larger audience. Research activities include working collaboratively with the three other medical schools in Pennsylvania (University of Pittsburgh, Penn State University, Temple Uni-

versity) to examine the validity and reliability of a prospective measure of the impact of commercial support on CME activity management, and continuing a joint project with the National Board of Medical Examiners that provides CME credits to participants in their item writing process.

The following Jefferson CME Research and Accreditation activities were presented at the Society for Academic CME Spring Meeting in Key West, Florida in April 2006.

1) *The Jefferson COI Process: Online, On Time, and Stratified*

Jeanne G. Cole, MS; Pauline G. Sylvester, MBA; Derek L. Warnick, MSPT

2) *Navigating the Slippery Slope of Commercial Support: Applying the Principles of Risk Stratification*

Luanne Thorndyke, MD; Jeanne Cole, MS; Cathy Thomas-King, CMP; Barbara Barnes, MD

3) *Web-based RSC: Managing The Nightmares Using a Unique Tracking System*

Jeanne G. Cole, MS; Sharon R. Heath; Pauline G. Sylvester, MBA; Derek L. Warnick, MSPT

4) *Developing Performance Improvement CME in In-Patient and Out-Patient Settings*

Joseph L. Seltzer, MD; Jeanne G. Cole, MS; Peter Chodoff, MD; Richard H. Epstein, MD; David B. Nash, MD

5) *Performance Monitoring System: A Management Tool for Individuals Activities and Overall Quality Improvement*

Tracy Allgier-Baker; Jeanne G. Cole, MS; Catherine Thomas-King, CMP; Derek L. Warnick, MSPT

Additional abstracts have been submitted and accepted for presentation in the coming academic year at the Canadian Association of Continuing Health Education (September 2006), the Association of American Medical Colleges (October 2006) and the Alliance for CME conference (January 2007).

Jefferson has been further recognized by the appointment of Jeanne G. Cole, Director of the Office of CME, as an Accreditation Surveyor for the ACCME, effective March 2006.

Technological Activities

OCME services enhance the design, delivery and evaluation of educational activities sponsored by JMC and its clinical departments. Technological advances are incorporated into the daily practice of the OCME. In the past year, the OCME improved its use of Web-based testing and evaluation, scanning technology, and ARS. Specialized sections of the Web site were developed to address changing ACCME and AMA national requirements in the areas of managing regularly scheduled conferences (series), Conflict of Interest documentation and resolution, and the Standards for Commercial Support.

The OCME Web site at <http://jeffline.tju.edu/jeffcme> continues to be recognized by its listing on Bernard Sklar's Online CME Sites, an Annotated List of Online CME. The Web site continues to grow in depth and scope, and incorporates a calendar of events, online registration capabilities, links to relevant CME sites, and postings of a variety of internet-specific CME activities. The OCME strives to continu-

ally improve its administrative processes. Improvements to the OCME Web site included continued development of an online application system for CME activities, creating a library of resources for those involved with the development of regularly scheduled conferences (grand rounds), and creation of a "Committee Only" section of the Web site to improve communication pathways between the OCME and Committee on CME Committee members. The goals of improving OCME communications with its clients and users, and of realizing cost savings in the delivery of those services are being achieved.

Administrative Activities

Advances in technology serve to improve access and communications between the OCME and various individuals and groups. For example, OCME administers JMC's Visiting Professor programs in Delaware, Pennsylvania and New Jersey. OCME maintains the "JEFF-ETC" service. Jefferson Electronic Transcripts and Certificates (JEFF-ETC) provides participants in JMC-sponsored CME activities online access to the documentation of their participation in CME activities. Healthcare professionals can quickly obtain their records on demand in a customer friendly and cost effective manner.

Joseph L. Seltzer, MD

Senior Associate Dean, Continuing Medical Education, and Faculty and Alumni Affairs

Jeanne G. Cole

Director, Continuing Medical Education

Office of Human Research



First you will notice that our name has changed from the Office of Scientific Affairs to the Office of Human Research (OHR). This office is now officially part of the TJU corporate structure along with other research support offices that serve the entire Jefferson research community. The other offices are Office of Research Administration, Office of Technology Transfer, and Office of Animal Resources. The OHR provides administrative infrastructure and support for the following research programs and Committees:

- Division of Human Subjects Protection (Institutional Review Boards)
- Research Biosafety Program including the select agents program
- Institutional Biosafety Committee
- Division of Clinical Trials Support
- Volunteer Program

Division of Human Subjects Protection (Institutional Review Boards)

Thomas Jefferson University has four Institutional Review Boards (IRBs) approved under its FederalWide Assurance (FWA) from

the Office of Human Research Protections of Department of Health and Human Services. Three of the IRBs are on campus and the third is at Methodist Hospital Division of Thomas Jefferson University Hospital. The IRBs and their administrative support staffs are organized under the Division of Human Subjects Protection (DHSP) within the Office of Scientific Affairs under a Director. The four IRBs have as their primary responsibility the protection of the welfare of human subjects involved in biomedical and behavioral research. The major work of the IRB consists of the assessment of research related benefit-risk ratios and assuring that informed consent is properly obtained and documented. IRBs have a responsibility to society, and to the Jefferson community in particular, to review and approve worthwhile studies in a timely fashion while upholding and abiding by the federal regulations that govern human subjects research (DHHS- 45CFR 46, and FDA - 21CFR 50 & 56).

The IRBs review research protocols, consent forms, adverse events, amendments (revisions) to protocols and consent forms, advertisements for research subject recruitment, and all other matters pertaining to the con-

duct of research on human subjects. A central purpose of the IRBs is to sustain a collaborative and supportive balance among the interests of researchers of Thomas Jefferson University and the requirements of federal regulations. Maintaining this balance in the face of increased volume of work demands significant effort and time from the IRB members, the IRB Chairs, and the administrative staff of the DHSP.

The three on campus IRBs each have between 30 and 35 members, and the Methodist Hospital IRB has 10 members. The membership includes non-TJU affiliated individuals, non-scientists who may or may not be TJU employees, basic scientists, clinicians, nurses, and others working in medical and scientific fields. The membership has the expertise to review all submitted protocols from both ethical and scientific perspectives. The Chairs of the on campus IRBs are David Brock, MD, CIP, Christopher Chambers, MD, and Stephen Weinstein, PhD. The chair of the Methodist Hospital IRB is Gregory Mokrynski, MD, CIP.

This report encompasses calendar year 2005. During this period, the three on-campus IRBs held a total of 70 regular meet-

ings, and reviewed a total of 644 new studies (full review, expedited, exempt, and disapproved). The DHSP staff handled 2,885 transactions. Currently there are 863 active studies on campus, 71% of which are commercially or federally sponsored. In conjunction with the Institutional Biosafety Committee, the IRB reviewed one gene transfer study during the year.

The TJUH/Methodist Hospital Division IRB, reviews predominantly Phase I drug studies for Wyeth but is expanding its workload as more Jefferson faculty begin to participate in sponsored clinical research done at Methodist. The Methodist Hospital IRB held 13 meetings and reviewed 13 new submissions and completed a total of 69 transactions during the reporting period.

The human subjects protection program at TJU is large and complex by any standard. The Director of DHSP, the Executive Secretary of the IRBs, and the IRB Chairs wish to acknowledge with sincere thanks the concerted effort of the IRB members, and the DHSP administrative staff. These are all dedicated individuals who perform fundamentally important work for TJU. Without them our high quality and nationally recognized human subjects protection program would not be possible.

Personnel Changes

There were important changes in the OHR/DHSP during the reporting period. George Kalf, PhD, CIP, retired in January 2005 as Associate Dean for Scientific Affairs and Director, Office of Scientific Affairs. He provid-

ed leadership for the Office, its Research Biosafety Program and the DHSP/IRBs since 1997. TJU owes a large debt of gratitude to Dr. Kalf for the many positive changes he effected. During his tenure, the Office of Scientific Affairs was established as a research support office separate from the Office of Research Administration (ORA). Subsequent to that, the office along with its Research Biosafety and Human Subjects Protection programs, moved to their current location in Suite 1100, 1015 Chestnut Street. The program expanded from a single IRB to three on-site IRBs plus one at Methodist Hospital, and the staff grew from five to 14 persons (now at 11). At TJU the total number of IRB transactions increased from 1,368 in 1997 to 2,885 in 2004. Dr. Kalf continued to work part time as the Director for Special Projects and as chair of one of our IRBs (formerly the "Smith IRB"). In addition to chairing an IRB, his other major mission was to shepherd TJU through the process and application to obtain national accreditation for our human subjects protection program. Successful completion of this arduous task will help insure that TJU remains a leader in the world of human subjects protection programs.

J. Bruce Smith, MD, CIP became Associate Dean for Scientific Affairs and Director of the OSA and the DHSP on January 1, 2005. Dr. Smith is Professor of Medicine, and Professor of Microbiology and Immunology. He has been a TJU faculty member since 1981 and has a long history of basic and clinical research. He

has been intimately involved in the human subjects protection program for the past 10 years

During the year, there were also several changes in the administrative staff of the DHSP. Latesh Boyd was appointed Adverse Events Coordinator, Neely Tang was appointed secretary to the Brock IRB and Jennifer Alexander was appointed as secretary to the Kalf Board. Justina Rosario was appointed coordinator of the Quality Improvement Program and also works as an administrative secretary handling continuing reviews and final reports. Currently there are 11 full time personnel in the DHSP, including the executive secretary of the IRBs and the Director. The Methodist Hospital IRB has also had personnel changes. Judy Genniro resigned as Secretary to the IRB and Christine Haines-Smith was appointed to that position, and TJUH is now represented on the Methodist Board by Keith Stroup, Esq.

Quality Improvement/Education Program

The quality improvement team conducted 14 site visits during the reporting period. The mission of the DHSP Quality Improvement/Education Program is to augment and facilitate continuing review of ongoing clinical trials, enhance protection for research subjects, and ensure compliance with regulations and ethical guidelines. The program's goal is to develop a collegial relationship with clinical investigators and study coordinators and assist them in developing effective procedures to conduct and monitor all aspects of their human subjects research.

In this way DHSP encourages a culture of compliance within the institution and a partnership between the research community and the DHSP. As a result of the QI visits, five faculty attended hearings concerning human subjects violations (down from nine during the previous reporting period), and although all were found to have violated federal human subjects regulations, none resulted in compromise of subject welfare.

The Division of Human Subjects Protection (DHSP) has continued the two-day course entitled "The Clinical Research Coordinator: Learning the Basics." This course is required by DHSP and the Department of Human Resources for all individuals holding the position of clinical research coordinator, I, II or III, clinical research assistant, clinical research project manager, and clinical research nurse, I, II, or III. Human Resources has updated the job descriptions for these positions to include this requirement. Certificates of completion have been issued to 111 individuals, and feedback from students has been generally positive.

The federal government mandates formal training regarding the ethics and regulations that govern human subjects research for all those engaging in research involving humans. The number of investigators and key personnel who have completed the certification program in order to be eligible to conduct human subject research continues to expand. In the past year, 995 individuals completed our Web-based self-study training program and

passed the certifying examination. Of these, 337 were recertifications, and 658 were certified for the first time. Certification is for three years. Individuals who were certified in 2003 will be required to be recertified during 2006. The annual Web-based update for investigators and key personnel, a requirement for maintaining certification, was completed by 446 individuals. In addition, 669 faculty and key personnel completed our online HIPAA training.

The Director of DHSP participates in numerous educational activities for TJU faculty and staff regarding protection of human subjects in research. These include participation in ongoing faculty improvement seminars, the new faculty orientation program, presentations to coordinator groups and the Departmental Administrators Discussion Group. Dr. Smith, Dr. Kalf and Deborah Moretti, research coordinator for the Division of Gastroenterology, participated on the planning committee for an Office of Research Integrity (ORI) sponsored conference on responsible conduct of research that was directed primarily at research coordinators. The two-day conference took place in June, 2005. Drs. Kalf and Smith and Ms. Moretti all spoke at the plenary sessions and participated in workshops. The conference received very high marks from all attendees. Dr. Smith also directs a 12-week summer course in the Jefferson College of Graduate Studies entitled "Regulatory Issues in Human Subjects Research."

Kyle Conner, Executive Secretary of the IRBs, presented lectures on human subjects protection and the IRB process to the Maternal-Fetal Medicine fellows, faculty in the College of Health Professions, Family Medicine fellows and summer students. He also presented a lecture on human subjects protection in the CGS Masters Degree Program in Pharmacology course entitled, "Regulatory Issues in Human Subjects Protection" which is directed by Dr. Smith. He also lectured in the mandatory research coordinators course.

Research Biosafety Program

The Research Biosafety program involves the inspection and certification of laboratories and investigators conducting research with risk group 2 or higher agents that require biosafety level 2 or higher laboratory physical containment conditions. All proposals for research using the above listed agents are reviewed and approved by the Institutional Biosafety Committee (IBC) prior to the start of the research.

The Institutional Biosafety Officer (BSO), Sue Gotta, MS, is also a member of the IBC. She conducts laboratory inspections, certifies investigators for work in the biosafety level-3 (BL-3) laboratories, conducts biosafety training, reviews protocol submissions and acts as a resource person for investigators.

All individuals conducting research involving an agent that potentially causes disease and for which there is an immunization, must register with OHR and obtain a permission slip for the specific immunization required

to be administered by University Health Services.

Institutional Biosafety Committee

Under the NIH Guidelines for Research Involving Recombinant DNA Molecules, each institution conducting or sponsoring recombinant DNA research covered by these Guidelines is responsible for ensuring that the research is carried out in full conformity with the provisions of the Guidelines. The institution must establish and implement policies that provide for the safe conduct of recombinant DNA research and ensure compliance with the Guidelines. The institution must also establish an IBC whose responsibilities need not be restricted to recombinant DNA. If the institution is engaged in recombinant DNA research requiring BL-3 containment, it must appoint a Biological Safety Officer (BSO) who shall be a member of the IBC.

As can be seen by the IBC report, the Research Biosafety Program is closely interwoven with the Institutional Biosafety Committee activities.

Under the Occupational Safety and Health Agency (OSHA) Bloodborne Pathogens Standard (29 CFR 1910.1030), the University is obliged to ensure that employees whose work requires them to come in contact with human blood or other potentially infectious material shall be adequately protected. The IBC inspects and monitors, through the BSO, those research laboratories conducting research using human blood and tissues and body fluid contaminated with human blood.

The IBC is also responsible for working with the Institutional Animal Care and Use Committee (IACUC) to ensure that animal experiments in which biohazardous agents are used are conducted in a manner commensurate with the above guidelines and/or regulations.

The IBC is also responsible for interacting with the University Health Services to ensure that investigators conducting research involving biohazardous agents are offered immunization against the agent being studied, in so far as immunization is available.

On behalf of the Institution, the IBC is responsible for:

- Reviewing recombinant and pathogens research for compliance with the *NIH Guidelines for Research Involving Recombinant DNA Molecules* and the *NIH/CDC Guidelines for Biosafety in Microbiological and Biomedical Laboratories* and approving those research projects that are in conformity.
- Reviewing research and inspecting laboratories using human blood, cells or tissues for conformity with the provisions of the OSHA Bloodborne Pathogens Standard.
- Keeping abreast of mandated guidelines and other sources of good safety practice (GSP).
- Establishing laboratory compliance and inspection guidelines that facilitate documentation that the IBC has met GSP requirements.

- Making an independent assessment of the containment levels required for the proposed research and of the facilities, procedures and practices of the investigator proposing to carry out the research.
- Setting containment level.
- Initially, and periodically, inspecting and certifying the laboratories conducting research which requires containment and practice at the BL-2 level or higher.
- Adopting emergency plans covering accidental spills and personnel contamination resulting from such research.
- Reporting to the appropriate institutional official and to the NIH Office of Biotechnology Activities any significant problems with/ or violations of the Guidelines and any significant research-related accidents or illnesses.
- Review of animal protocols submitted to IACUC for biosafety issues.
- Review of protocols submitted to the Institutional Review Board involving gene transfer for biosafety-issues.
- Serving as a resource and guidance source for investigators who are designing their biosafety plans.

The IBC comprises 16 members, so selected that they collectively have experience and expertise in recombinant DNA (RCDA) technology and/or pathogenic

organisms, biological safety and physical containment and the capability to assess the safety of experiments utilizing recombinant DNA and/or pathogens and any risk to public health and to the environment.

Two of the members are not affiliated with the Institution and represent the interests of the surrounding community with respect to health and protection of the environment. The Biological Safety Officer (BSO) is a member and Vice Chair of the IBC.

This past year, the IBC reviewed and classified a total of 20 new and revised research proposals. The review of the above protocols resulted in 17 inspections by the Biosafety Officer to certify laboratories for work at the BL-2 containment level or higher. Laboratories functioning at the BL-2 are reinspected every two years, BL-2/3 are inspected annually, and those at the BL-3 level are reinspected bi-annually.

During this year, one new human gene transfer protocol was reviewed. However, revisions to the protocol and clarifications regarding the research were not returned to the IBC and there was no further review.

The IBC met to review the TJU vaccinia vaccination policy. Members of the IBC as well as TJU research personnel who work with vaccinia were invited to provide discussion on whether or not the current policy on voluntary vaccination should remain in place. The consensus of those present was that the vaccination should remain voluntary. It was also decided that we do not need to change our proce-

dures for informing individuals about the vaccine. All personnel are offered the vaccinia vaccination, and for those who decline, a declination form is kept on file with University Health Services.

The IBC continued to improve the comprehensive OSA-11 University internal form for submission of studies to the IBC. Submission of the OSA-11 may now be done electronically.

Working in conjunction with the IBC, Dr. Jungkind pursued a contract with Chem-Tel to provide the 24-hour emergency line when infectious substances are shipped. Dr. Jungkind, a member of the IBC and Director of Clinical Microbiology, is a major shipper of infectious substances at the University. In addition to covering his shipments, other members of the research community who ship less frequently will also be able to use Chem-Tel for their infectious goods shipments.

Volunteers in Research Laboratories

Individuals such as high school and college students volunteering to work in the research laboratories of the Medical College and any individual (such as a post doctoral fellow or other researcher) whose salary is not paid by the University, must register with the Office of Scientific Affairs and have their project reviewed by the IBC if their research involves biohazardous agents. This is required for risk management. During the year, the IBC and OHR processed 56 volunteers.

In conjunction with the TJUH volunteer services director, a

new screening form was developed to better assist volunteer office personnel in redirecting volunteers as needed to the Office of Human Research/Biosafety Division.

Select Agent Program

The "Public Health Security and Bioterrorism Preparedness Response Act of 2002" requires that the United States improve its ability to prevent, prepare for, and respond to bioterrorism and other public health emergencies. Congress designated the CDC as the responsible agency to oversee 42 CFR Part 73, Possession, Use and Transfer of Select Agents and Toxins. This document builds on and greatly strengthens the earlier Select Agents Regulations presented in 42 CFR 72 for the possession, use and transfer of select biological agents.

Implementation of these new regulations required that TJU be registered once again to hold, use and transfer select agents. This new regulation requires registration of the institution, a security risk assessment, safety and emergency response plans, training, transfers, record keeping, inspections and fingerprinting and vetting by the FBI of all investigators involved with select agents as well as the Responsible University Official (RO; Associate VP for Research) and the Alternate ROs (University Biosafety Officer, Sue Gotta, and Donald Jungkind, PhD, Department of Pathology, Anatomy and Cell Biology). An ad hoc committee of IBC members developed safety and emergency response. A special physical security plan involving new construction to

implement double key card access to, and video monitoring of, the area where laboratories where work with select agents was implemented in the Division of Infectious Diseases. The CDC conducted a site visit to the facility on April 21, 2004. After minor changes in policies and standard operating procedures, Jefferson is now in complete compliance with the Final Rule, which became effective in April.

Division of Clinical Trials Support

The Clinical Trials Support Office was established to foster clinical research and to hold such research to the highest standards. The Associate Director of the Division of Clinical Trials Support is Roseann Talarico. The Office of Clinical Trials Support

has three main missions. These are 1) supporting faculty members involved in clinical trials research by providing administrative infrastructure support services, 2) framing policy and operating issues surrounding clinical trials, and 3) providing education and training to the research community at TJU. This office will also establish outreach programs for investigators and the public. These will include information for physicians regarding what clinical trials are available for patient referral, and a Web site that will inform patients about the sorts of clinical trials that are available at Jefferson for their potential participation. Other specific duties include 1) development and maintenance of written Standard Operating Procedures for the clinical tri-

als enterprise, 2) establishment of guidelines for the design and conduct of investigator-initiated clinical research studies, including billing practices, and 3) implementation of educational programs regarding Good Clinical Practice and the regulatory environment governing clinical trials.

J. Bruce Smith, MD, CIP

Professor of Medicine

Director, Office of Scientific Affairs

Director, Division of Human Subjects Protection

Gerald B. Grunwald, PhD

Professor of Pathology, Anatomy and Cell Biology, JMC

Senior Associate Dean, JCGS Chair, IBC

Center for Research in Medical Education and Healthcare



The Center for Research in Medical Education and Health Care is involved in a wide range of medical education, health services, and policy research projects serving the Jefferson community, as well as national and international organizations. Highlights for academic year 2005-2006 are described below, followed by brief summaries of Center projects.

The Jefferson Longitudinal Study is one of the most comprehensive databases of its kind supplying important information to JMC administration and faculty, as well as supporting research projects addressing key issues in medical education. A compendium of 155 summaries of research studies entitled *Abstracts: Jefferson Longitudinal Study of Medical Education* was published in 2006 and distributed widely to leaders in medical education.

The Jefferson Scale of Physician Empathy (JSPE), and the Jefferson Scale of Physician Lifelong Learning (JSPLL) have been widely used at Jefferson and by medical educators and researchers in the U.S. and internationally. The Jefferson Scale of Physician Empathy has been translated into 14 languages. Dr. Mohammadreza Hojat's book on empathy and the development of the Jefferson Scale of Physician

Empathy is now in press and will be released in the fall of 2006. With support from the National Board of Medical Examiners Edward J. Stemmler, MD Medical Education Research Fund, the Center is continuing its research on predictors and outcomes of physician lifelong learning.

In collaboration with the Dean's Office, Jeff-IT, and the clinical clerkship directors, the Center has been instrumental in the design, operation, and continuing improvement of Jefferson's Patient Encounter Log System (PELS). A major effort was made this year to update clerkship objectives in preparation for the academic year beginning July 2006. Objectives for all clerkships were documented and reviewed to develop goals for the number and kinds of patients and student/patient interactions needed to meet the objectives for clinical education. With PELS, students and faculty can review a summary of each student's clinical experiences, compared to clerkship-specific targets, at the push of a button.

Center faculty continue their teaching responsibilities in the Health Policy and Biostatistics modules of Medical Practice for the 21st Century (MP-21) and have developed a new course for

Jefferson's MS in Public Health. This course, entitled Health Policy: An International Perspective, will be taught in conjunction with colleagues from the Department of Health Policy.

The Center continued its work on a series of projects being performed in collaboration with the Regional Health Care Agency of the Emilia-Romagna Region of Italy. These projects address a wide range of issues in health care organization, financing, and quality improvement activities. Ongoing activities include: development of a longitudinal, population-based, health care utilization database including the four million residents of the region; refinement and validation of a method for assessing the timelines and appropriateness of acute hospitalization; risk adjustment models to assist in health care planning and financing at the local level; and, assessment of appropriateness of outpatient prescription use.

Center staff continues to publish and present Center projects in both U.S. and international journals and at scientific and professional meetings and contributes to faculty development through multiple joint publications with JMC faculty.

Medical Education

The Center's medical education activities include service to the Dean's Office, academic departments, and faculty members; and research related to the Longitudinal Study and Jefferson Scale of Physician Empathy, clinical skills assessment, evaluation of educational programs, written examinations, and ad hoc surveys.

Longitudinal Study

The Jefferson Longitudinal Study includes academic and career outcome data that span medical school classes since 1964 and house staff at TJUH since the first intern entered in 1909. Core data include physicians' demographics, board scores, and program directors' ratings of residents' clinical performance. Follow-up data include career outcomes from the American Medical Association's national data file, faculty appointments from the Association of American Medical Colleges, board certification from the American Board of Medical Specialties, and periodic alumni surveys.

The Longitudinal Study is used as a tool for academic management of the outcomes assessment requirements of the LCME for the medical school, the ACGME for residency programs, and the Middle States Commission on Higher Education for the University. A compendium of 155 summaries of published research studies entitled *Abstracts: Jefferson Longitudinal Study of Medical Education* was published in 2006 and distributed widely to leaders in medical education. This document is available at: [\[jefferson.edu/jlsme\]\(http://jefferson.edu/jlsme\) and hard copies of the book can be obtained from the Center.](http://jdc.</p></div><div data-bbox=)

Undergraduate Medical Education

Extensive data for 9,291 Jefferson medical students since 1964 comprise the backbone of the Longitudinal Database and Tracking System. Student data include demographics, responses to Jefferson's matriculation and graduation questionnaires, records of academic performance in medical school, personal qualities, ratings of clinical competence in residency, and follow-up surveys throughout their professional career. A follow-up survey of graduates between 1975 and 2000 is being conducted to study the graduates' work status, setting of their medical practice, hours worked per week in different professional activities, extent of their involvement with scholarly activities, satisfaction with medical education received at Jefferson Medical College, and their career satisfaction. Results will be available in the summer of 2007.

Graduate Medical Education

In addition to the Longitudinal Study of residents, Center staff collect and manage other GME data used for internal review, and for reports to the ACGME and Residency Review Committees on behalf of the Senior Associate Dean for Graduate Medical Education. Since 1998 program directors at TJUH have submitted annual performance ratings of their residents and fellows using a form that was designed to address the six ACGME competencies. The trainees also submit annual evaluations of the quality

of their GME programs on standard forms that cover TJUH and affiliated sites. Center staff also collaborated with the GME Office and faculty from the Departments of Medicine and Surgery to develop a new psychometrically-sound instrument to evaluate teaching by attending physicians.

Jefferson Scale of Physician Lifelong Learning

The National Board of Medical Examiners (NBME) Edward J. Stemmler, MD Medical Education Research Fund awarded Center researchers a two-year invitational grant for further development and refinement of the *Jefferson Scale of Physician Lifelong Learning (JSPLL)*. A previous study supported by the Fund, was completed in 2004 and provided core support for the scale's reliability and validity. Higher scores, on average, were observed for physicians who were involved in professional activities that require continuous learning (e.g., publication, research activities, training awards). On average, specialists scored higher than generalists. The mean score on the JSPLL was also higher for physicians who had also earned PhD degrees. The second two-year study of the JSPLL involves extensive surveys of decades of Jefferson alumni in order to investigate predictors of physicians' lifelong learning and career outcomes of physicians in relation to their lifelong learning.

Unprofessional Behavior and Disciplinary Action by Medical Boards

The results of this study of graduates from Jefferson, the

University of California at San Francisco, and the University of Michigan, were published in *The New England Journal of Medicine* in December 2005. They indicated that physicians involved in disciplinary action by state medical boards were more likely to have demonstrated unprofessional behavior as medical students. Cases were graduates of three medical schools subsequently disciplined by a state medical board. Control physicians were matched by medical school and graduation year. The study built on decades of longitudinal research at Jefferson and research at UCSF and Michigan on the measurement of professional behavior.

Jefferson Scale of Physician Empathy

The Jefferson Scale of Physician Empathy (JSPE) has been used by researchers in the U.S. and foreign countries. This year translations were added for Dutch, German, Greek, Japanese, Korean, Portuguese, and Spanish for Peruvian respondents, bringing the total to 15. During the past academic year Dr. Mohammadreza Hojat, who has led development of the JSPE, completed a monograph on empathy in patient care and the development of the JSPE which is scheduled for release in the fall of 2006 by Springer Science+Business Media. Information about the book is posted at www.Springer.com/0-387-33607-9. Because of the increasing demand to use the JSPE in research outside Jefferson, the Center developed a Web-based administration program to supplement the computer-readable forms and scoring services that

are offered. The Pfizer Medical Humanities Initiative provided continuing support to conduct a longitudinal study of the development, stability and rate of change in empathy during medical education. Factors that contribute to changes in empathy at different levels of medical education are being examined. Researchers in the U.S. and abroad are conducting several other studies in which the JSPE is used. Researchers in the Family Medicine and Internal Medicine residency programs at TJUH conducted studies to examine relationships between scores of the JSPE and patients' perceptions of their physician empathy. Three new studies were conducted on long-term predictive validity of empathy; correlates of the JSPE with other measures of empathy; and the relationship between empathy, personality and perceptions of early relationships with parents.

Jefferson's Patient Encounter Log System (PELS)

The LCME accreditation standards require quantified criteria for types of patients seen and the level of student-patient interaction in order to meet clinical clerkship goals. The degree of achievement of these goals must be monitored to ensure that all students have the desired clinical experiences. This information is also important for assuring the quality of our clinical affiliation network. JMC has long been a leader in documenting our students' clinical experiences. The PALM-based Jefferson PELS system was fully implemented in the 2003-2004 academic year. These data are available to each clerk-

ship director not only to assess individual student experiences but also as they establish, evaluate, and modify clerkship goals. A major effort was made this year to update clerkship objectives in preparation for the academic year beginning July 2006. Using data from the first half of the year, a series of reports was generated documenting reported student experiences. Center staff worked with each clerkship director to review these data. Objectives for all clerkships were documented and reviewed to develop goals for the number and kinds of patients and student/patient interactions needed to meet the objectives for clinical education. With PELS, students and faculty can review a summary of each student's experiences, compared to clerkship-specific targets, at the push of a button. Center staff, collaborating with the senior associate dean, undergraduate medical education, Jeff-IT, and the clinical clerkship directors, are instrumental in the design, operation, and continuing improvement of PELS. (More information about PELS is available at: Jefferson PULSE/Organizations/JMC PELS Users.)

Clinical Skills Assessment

Center faculty worked with the Clinical Skills Center to develop software to examine the psychometric properties of the checklists completed by standardized patients, compute students' scores, set passing standards and report results for the comprehensive clinical skills assessment (OSCE) at the end of the third year. Faculty from both Centers collaborated on research papers

related to variation in standardized patients' ratings, automated scoring of students' post-encounter notes, and analysis of the congruence between post-encounter notes and standardized patients' checklists. We also began a study in collaboration with staff at the National Board of Medical Examiners to investigate the relationship between students' performance on the Board's tests in order to examine the validity of Jefferson's clinical assessments.

Education in Tobacco Cessation

Center researchers continued to collect evaluation data for a program developed by faculty from the Department of Medicine with support from the Pennsylvania Area Health Education Center. Third-year medical students received special training during the internal medicine clerkship to enable them to help patients stop smoking. Although measuring changes in knowledge and attitudes involves conventional tests and attitude scales, Jefferson's Patient Encounter Log System (PELS) and the third-year Clinical Skills Assessment are being used to assess clinical experiences and clinical skills related to tobacco cessation.

Clinical Clerkship Review

Center staff collect systematic data from third- and fourth-year students to monitor clinical clerkships at the University and affiliated hospitals. Established in 1982, the clerkship database includes students' self-reports of their educational experiences at each site, scores on written examinations, faculty ratings of the students' clinical performance, and student reports of

the clerkship's impact on their career plans. Staff members provide periodic reports to the Curriculum Committee, Dean's Office and individual departments to enable the faculty to assess the quality of the educational program across sites.

Computer Test Item Databases

Development in this area has been a result of close cooperation with the directors of the Family Medicine; Foundations of Clinical Medicine; Immunity, Infection and Disease; and Foundations of Pathology and Pharmacology courses. Center staff provide support for the development and maintenance of test item databases, prepare tests, track the performance of items, and provide periodic reports to faculty members.

Test Scoring and Item Analysis Services

Center staff provided essential support services for the testing and examination needs of medical school faculty who employ a variety of testing formats (e.g., multiple choice, extended matching, uncued tests) depending on the content being assessed. Center staff scanned, key-validated, scored and analyzed more than 350 written examinations and evaluation questionnaires during this academic year and calculated final grades for seven pre-clinical courses. To further protect the confidentiality of students' personal data, we designed a new test answer sheet which will enable students to use their Jefferson Campus Key as a personal identifier, replacing the sheets that required a nine-digit student identifier. Center

staff also provided support to the clinical departments that use the National Board of Medical Examiners' shelf examinations by converting scores to clerkship grades and developing a Web-based reporting system to assure that students receive their grades within three weeks after the end of a clerkship.

Surveys

Center staff provided support to the faculty and administration for conducting a variety of ad hoc surveys using optical character recognition (OCR), optical mark recognition (OMR), and Web-based surveys. For the eighth consecutive year, staff worked with the Hand Rehabilitation Foundation to create and analyze evaluations of its annual symposiums for therapists and surgeons. Other examples during 2005-2006 included the special survey of the student body for the upcoming LCME accreditation visit, the *Pediatric Asthma Quality of Life Questionnaire* in conjunction with Children's Hospital of Philadelphia, a symposium on tobacco cessation programs, elections of the Executive Council of the Medical Staff Office, and patient satisfaction surveys for medicine residents.

Faculty Database

Center staff provided support to the Office of Faculty Records for the development and maintenance of the medical college's Faculty Records Database. This project included assistance in setting up standard reporting functions and the development of custom queries and reports to enable the Office to respond to requests from within the University as well as outside agencies.

Health Care

Collaboration with the Health Care Agency, Emilia-Romagna Region, Italy

In academic year 2005-2006, the Center continued a major series of projects being performed in collaboration with the Regional Health Care Agency of the Emilia-Romagna Region of Italy. These projects address a wide range of issues in health care organization, financing of the health care system, and quality improvement activities. Ongoing activities include:

- Development of a longitudinal, population-based, health care utilization data base including the four million residents of the region.
- Refinement and validation of a method for assessing the timelines and appropriateness of acute hospital use.
- Risk adjustment models to assist in planning and financing at the local level.
- Assessment of appropriateness of outpatient prescription use.

Each of these projects is briefly described below.

Longitudinal Health Care Utilization Database

The Center has constructed a population-based longitudinal health care database for the four million residents of Emilia-Romagna. The database was developed from encounter-based records of an individual's interaction with the health care system using administrative data, capable of individual and geographic levels of analyses. The database includes:

- Demographic information on all residents, including age, gender, birth and death date, location of residence, and primary care physician.
- Hospital discharge abstract data, including ICD-9-CM coded diagnosis and procedure codes, admission and discharge dates, and DRG-based payments. These data include both acute hospital stays and "day hospital" encounters.
- Outpatient pharmacy data at the individual prescription level, including drug codes, pharmacy payments, and patient co-payments.
- Specialty care, including detailed type of service (lab, diagnostics, therapeutic procedures, visits to specialists), service costs, patient co-payments, dates of service, and physician information.
- Home health data, including the type of service, provider of the service (physician, nurse, therapist, etc.), hours of service provided, number of visits, reason for the visit, and diagnosis.
- Information on each primary care physician in the region, including payments received, specialty, years in practice, and patient load.

All of this information, fully linkable at both patient and physician levels, is currently available for five consecutive years (2000-2004), and there is ongoing data collection.

The value of the database has been increased by adding clinical

classifications mapped from the hospital and pharmacy data. Diagnostic codes from day and acute hospital admissions have been used to classify admissions using the Disease Staging classification which, in turn, has been used to identify the subset of individuals who may be at higher risk for utilizing more extensive or expensive health services in the future. Another set of indicators (Chronic Condition Drug Groups-CCDGs) uses outpatient pharmacy data and the Italian national formulary to identify individuals with chronic disease. Using both hospital and pharmacy data, Staging groups and CCDGs have been used to identify chronic diseases in a body system-etiology framework.

Assessment of Timeliness and Appropriateness of Acute Hospital Use

The Center has developed a method to identify potentially inappropriate acute hospital admissions (patients who could be effectively and safely treated in alternative, less costly settings) as well as "late" hospital admissions (patients who could have benefited from diagnosis and treatment at an earlier stage of their disease). This methodology, developed with input from the Jefferson clinical faculty, uses standard hospital discharge abstract data to evaluate the severity of a patient's principal diagnosis, using the Disease Staging classification, the presence and severity of co-morbid disease, and the nature of surgical procedures performed. The method has been reviewed by a panel of Italian physicians which confirmed the validity of the

approach. The revised criteria have been applied to hospital admissions for residents of the Regione Emilia-Romagna and used by the region, local health units, and hospitals as a part of the planning process designed to efficiently meet the health care needs of the population.

Risk Adjustment and Population-Based Financing of Health Care

Italian law mandates that health-care funds should be directed at the local level and allocated according to the National Health Service (NHS) values of equity and solidarity. Consistent with these values, Center researchers have designed risk adjustment models that will assist health managers to develop budgets in the Regione Emilia-Romagna. Models predict an individual's future-year hospital and pharmacy costs based on clinical information from inpatient and outpatient hospital episodes, prescription drug files, and demographic data. The risk adjuster assigns individuals into clinical groupings designed by Center researchers to predict high resource use: Disease Staging Groups, Chronic Condition Drug Groups, and Body System-Etiology Groups. This year the Parma Local Health Unit is using these risk adjustment models in their budgeting process with the assistance of Center researchers.

Potentially Inappropriate Medication Prescribing for Elderly Ambulatory Patients in Emilia-Romagna, Italy

The elderly consume, by far, the largest amount of drugs per capita and, therefore, represent

the segment of the population at highest risk for adverse drug effects. Inappropriate medication use has been found to be one of the most prominent causes of adverse drug effects in the elderly. Information from outpatient prescription claims and demographic data from the Regione Emilia Romagna have been used to investigate the prevalence of potentially inappropriate medication prescribing among elderly residents by using published, widely used explicit criteria and by examining factors associated with inappropriate prescribing. Future work will analyze the relationship between inappropriate prescribing and characteristics of outpatient practitioners. The awareness of the prevalence of inappropriate medication prescribing and associated determinants may be useful in designing and implementing effective programs targeting outpatient practitioners to reduce inappropriate prescribing. (Vittorio Maio, PharmD, MSPH, Department of Health Policy is collaborating with Center Staff on this project.)

Collaboration with the National School of Public Health, Lisbon, Portugal

Center staff are collaborating with researchers from the National School of Public Health in Lisbon, Portugal to apply the methodology for assessment of appropriateness of hospital admissions to a database of Portuguese hospitals. Results of this project will be used to identify variations by hospital ownership and location in the context of changes in the system of hospital financing in Portugal.

Collaboration with the Local Health Unit of Parma

The Center is starting a new collaborative project with the Local Health Unit of Parma including two major tasks: 1) to estimate the extent of inappropriate medication prescribing for elderly ambulatory patients, and to help design educational activities to improve physicians' prescribing; and 2) to profile variations in patient panels, patterns of utilization, and costs of health care resources of teams of primary care physicians. The project is intended to help decision-makers and providers to manage health-care resources and improve the quality of care provided to the 415,000 residents of the Local Health Unit.

Clinical Benchmarking

Center staff are collaborating with physicians and management of "A. Gemelli" Hospital, the teaching hospital of Università Cattolica del Sacro Cuore in Rome, Italy in the design, analysis and presentation of clinically relevant hospital benchmarking reports. Disease Staging is used in reports that take into account the severity of illness while measuring quality and resource use outcomes. Additional analyses explore how internal organizational features affect departmental performance and patient outcomes and how patterns of care have changed over time.

Jefferson Cardiac Care Database

In collaboration with the JMC Department of Medicine, Center staff have created a Jefferson cardiac care database that links information from existing

administrative data (e.g., hospital discharge abstract data and physician billing data) and clinical information (e.g., laboratory results). These data will be used to assess variations in practice patterns and use of clinical practice guidelines. The database is being used to support faculty and house staff research projects focused on patients admitted to TJUH for congestive heart failure.

Feedback and Physicians' Clinical Performance

With support from the American Board of Internal Medicine Foundation, Center researchers completed a systematic review of the scientific literature on the impact of feedback on physicians' performance covering 220 published studies between 1966 and 2003. Although the findings of previous reviews on this topic have been equivocal, this review indicated that feedback can be effective when provided systematically over multiple years by an authoritative, credible source. The results were published in *Medical Teacher* and

as a published report by the Best Evidence Medical Education Collaboration in the U.K.

The AsthmaBus©

This public service education project is being conducted in collaboration with the Philadelphia Health Department, the Philadelphia School District, and the Philadelphia Asthma Task Force. A double-decker London-style bus has been remodeled as a moving asthma education vehicle and features cartoon characters, the AsthmaBusters©. Its aim is to increase asthma awareness among Philadelphia schoolchildren, and to provide screening for this disease. The Bus also participates in a Tobacco Education Program sponsored by the City Health Department and is conducted in collaboration with the Health Promotion Council.

Treating Childhood Asthma in Philadelphia: Linking asthmatic children with high absenteeism to health care services and resources

Children with untreated asthma, in addition to having an unat-

tended medical condition, experience poor school performance due to high absenteeism rates. This program identified children with unrecognized asthma among those with high rates of absenteeism and connected these children and their families with appropriate medical professionals as well as educated them about preventive measures that could be taken to care for this chronic disease. This project, funded by the Aetna Foundation, was a collaboration among researchers at Thomas Jefferson University, the School District of Philadelphia and the Child Asthma Link Line, a nonprofit organization working to improve health outcomes.

Joseph S. Gonnella, MD
Director

Daniel Z. Louis, MS
Managing Director

J. Jon Veloski, MS
Director, Medical Education Research

Mohammadreza Hojat, PhD
Director, Longitudinal Study



Office of Animal Resources

The Office of Animal Resources provides professional oversight and management of the University's laboratory animal care and use program, including all research and educational activities using laboratory animals.

Guidelines for Humane Care

Animals used in research must be provided with humane care and an environment conducive to their welfare for both ethical and scientific reasons. The Office oversees a comprehensive animal care and use program designed to provide this in support of the research mission of the University. It is responsible for management and operation of centralized animal-research facilities of 39,000 square feet located at four campus sites. A staff of animal caretakers and technical personnel provides daily care of laboratory animals. Veterinarians with special training and credentials in laboratory animal medicine oversee the veterinary-care program.

The Office provides professional guidance and administrative support to the Institutional Animal Care and Use Committee (IACUC), which is charged with reviewing all research protocols involving laboratory animals. The Office's goals and legal obligations are to ensure that all ac-

tivities involving laboratory animals are carefully reviewed and conducted in accordance with the highest standards of humane care for the animals used by its scientists in pursuit of medical advances. Currently, 470 protocols have an "Approved" status, with 152 principal Investigators associated with these protocols.

Occupancy

Approximately 99 percent of the animals used in research are rodents, a percentage that reflects the national trend for species used in biomedical research and education. There has been a 1.6% increase in occupancy over the past fiscal year. Our average occupancy for the 12-month period ending June 30, 2005 was 7,150 cages. Our average occupancy for the 12-month period ending June 30, 2006 was 7,263 cages.

Accreditation

The animal care and use program and facilities at Jefferson are accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC International). Accreditation is recognition of the high standards maintained by Jefferson. We also receive periodic unannounced inspections by the United States Department of Agriculture to enforce Preparing for the Future.

The research needs at Jefferson continue to pose challenges. The population of transgenic mice has grown in the past year, and it is anticipated that current recruitment of investigators will continue this growth pattern. To help meet the needs of the investigators, Jefferson continues to commit capital resources to provide continued service for the investigators. Space to house mice under barrier conditions continues to be a priority. The university purchased several new individually ventilated cage racks last year to accommodate increased needs. Subsequent improvements in room ventilation have been investigated and test rooms have been completed. Security has been improved with the installation of key card access in an increasing number of areas. To improve housing conditions of primates, several new caging racks have been purchased. These commitments will allow us to meet the immediate needs of scientists. Long-term growth will continue to be a significant issue at Jefferson. The Office continues to find ways to provide continued support and maintain high animal care standards as mandated by federal law and accreditation requirements.

Judith S. Daviau, DVM
Director, Office of Animal Resources

Academic Support and Instructional Resources



The operational units of Academic and Instructional Support and Resources (AISR) include:

- Scott Memorial Library
- Medical Media Services
- Education Services
- Learning Resources

Much effort was devoted during the year to improving the learning infrastructure of the University. Planning proceeded for the Hamilton Building, which will include very sophisticated audio-visual technology on all floors; and the renovation of the Herbut Auditorium. New technology was added to seven teaching spaces in Jefferson Alumni Hall; and improvements were made to the Scott Library facilities, as well. These are outlined below.

The population that AISR, and especially the Scott Library, serves grew during the year. As a reward for their generous contribution of teaching time to our medical students, JEFFLINE access was extended to more than 1,700 volunteer faculty. Licenses to journal and database subscriptions were altered to increase the number of eligible simultaneous users to support these faculty members.

Expanding our Scholarly Resources

The Scott Library's commitment to creating a digital library, available anytime or any place moved dramatically forward during the year. Subscriptions to print journals declined to 375 from over 1,000 the previous year. These print titles fall into two categories: journals which have no electronic equivalent and journals which users might still wish to scan or read in-house. Examples of the latter include *Nature* and *New England Journal of Medicine*. At the same time the number of electronic journal subscriptions increased by more than 450% to 6,925.

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To accommodate the many different ways in which Jefferson faculty and students discover relevant literature, such as the National Library of Medicine's PubMed, the databases from Ovid, Google Scholar, the Scopus system, etc., the Library implemented Serials Solutions. This complex system is aware of the titles to which the Library has a subscription, identifies that the user is a valid Jeffersonian who is allowed access to licensed journals, and automatically connects the user to the specific journal article from the citation in Google, PubMed, etc.

The number of electronic books also increased during the year to approximately 300. The Library added a subscription to Up to Date, a clinical decision support tool which had been requested by both students and faculty. Overall the print collection of the Library grew by 2% to 210,206.

AISR moved forward with its goal of transferring as much videotape to digital and online format as possible. During the year there were nearly 5,000 logins to the videosever to download content; this was mainly by medical students in support of anatomy and microscopic anatomy studies.

JEFFLINE and the Jefferson Digital Commons

JEFFLINE is the knowledge-based online system of the University networking users to a Web of journal subscriptions, bibliographic and statistical databases, electronic books, a catalog of print books and information about the Jefferson learning environment. The use of the system remained very high, with nearly two million hits on the homepage, equal to the previous year. The number of total hits on the system increased by 5% to 7.8 million, and the number of unique visits, which is the number of times a user entered the system for a session increased by 25% to 2.3 million.

Because JEFFLINE is a complex web of local- and externally-hosted resources it is becoming increasingly difficult to actually compare statistics from year to year. Users change the way they approach it and other Web sites as they become more facile with technology and as the technologies available for browsing evolve. For example, users may bookmark sections of high interest within JEFFLINE and thus not enter through the homepage. And, whereas one year ago most users might have been transferred to a specific electronic journal from the Cyber Café section, they may now utilize another route, such as via the Serials Solution software mentioned previously, and not be counted as a JEFFLINE statistic. The Library is seeking new ways to gather data on utilization to track these alternate paths.

The Jefferson Digital Commons (JDC), first mentioned in

last year's annual report, which serves as both a digital archives of Jefferson faculty produced knowledge resources and a technology for publishing original content on the Web, grew both in size and utility. The number of original faculty publications, doctoral dissertations, electronic books from the Special Collections, and other items grew to approximately 800. In addition two journals are now published electronically for the Department of Health Policy utilizing this technology. There were more than 19,700 full text downloads from the JDC, mainly by users outside of the University.

The Library as Place

While the demand for medical knowledge in electronic formats grows dramatically each year it is important to note that there continues to be an obvious demand on the Library as an environment for learning and social interaction. The fact that the Library shares the Scott Building with many other departments makes it impossible to gather precise data on how many faculty and students visit the facility. The Library staff has begun to periodically take a census of users at various points in time each day. This will be detailed in next year's annual report.

During the year significant steps were taken to improve the quality of the Library environment, including:

- Repainting the entire facility, with the exception of stairwells.
- Recarpeting the second floor.

- Lighting improvements began and will continue in the new year.

- A new reference desk, which will allow for improved communication with users has been ordered.

- New tables were ordered which will allow for more group study on the second floor.

- A marine aquarium was installed in the leisure reading area to create a quiet and reflective environment.

The most dramatic change was the renovation of the west side of the first floor which resulted in a new Library Café. In addition to comfortable seating and four vending machines, it also houses a number of networked computers and provides wireless access to the University network.

Once again the Scott Library mounted a number of exhibitions of art on campus.

Face to Face with AIDS was a dramatic, multimedia project focused on the disease within the poor, Black population of South Africa. It featured the work of New York photographer Ken Wong, including two videos.

The Eye of Naples exhibited the artistic talents of Caterina Arciprete, an Italian painter and book illustrator.

Use of AISR Resources

An accounting of the utilization of Library resources includes data on the circulation of print books and journals as well as a wide variety of electronic products. As print usage has slowly declined over the past decade,

electronic resource usage has rapidly increased. Table 1 shows some important data about the use of these resources, the state of the print collection, and the provision of some public services.

The University Learning Environment

Major changes in the quality and quantity of classrooms and auditoria occurred during the year. Staff from Medical Media Services (MMS) led the effort for defining the engineering specifications with architects and an external audiovisual company for each project as well as supervised installations. These included:

- The creation of the Foerderer Auditorium from McClellan Hall. This is now the most sophisticated electronic teaching space on the campus. The auditorium has been very well received by faculty and students.
- Planning began for a renovation of Herbut Auditorium which will result in a more pleasant, functional teaching space. Work on this project will begin in December.
- Teaching spaces in Jefferson Alumni Hall were upgraded with ceiling mounted projection systems and new carpeting. This includes the College of Graduate Studies Conference Room, five small group rooms and room 139.
- In an effort to improve distance, synchronous learning AISR implemented a new software system, Eluminate Live. This allows remote viewing of lectures and video, and for added

capabilities like polling students from remote sites. By year's end MMS also acquired new equipment for videoconferencing via the Internet. This will provide for a much less expensive solution for quality, full-motion video than was previously available. Both of these technologies are of interest to JMC and the School of Nursing.

- Staff from AISR Learning Resources devoted much effort to the conversion of instruction from light microscopy to a digital approach. The large wet lab in 509 Jefferson Alumni Hall was retrofitted with networked computer technology allowing students to view very high resolution images of photomicrographs at the lab bench and to be tested within this environment. An innovative approach, which allows five monitors and keyboards to be connected to a single computer, allowed for a more economical approach to this project. Learning Resources staff worked closely with faculty for the Microscopic Anatomy course to convert slide images to the new software and to set up a server to store these massive files. The system has now also be used by the Neuroscience course and will be incorporated into the Microbiology course next year.
- More than 120 public computers were replaced in the Scott and Edison Learning Resources Centers during the year. AISR's approximately 300 public computers were upgraded to the Windows XP operating system.
- The Learning Resources department of AISR acquired many new simulation devices,

anatomical models and manikins.

Support for Teaching

In addition to planning for renovations of classroom and auditorium spaces, MMS had a very busy year of supporting learning with equipment and projection services. The department completed 3,461 audiovisual equipment setups and staffed activities. Among these were:

- 21 video conferences
- 13,169 hours of equipment use
- 70 sessions involving the audience response system

Learning Resources staff provided many hours of support in the Clinical Skills Lab that included 87 lab setups for Emergency Medicine and Surgery departments and 68 setups and deliveries of models and other learning aids for Pediatrics, Surgery and Obstetrics and Gynecology departments.

Teaching and Software Development

AISR Educational Services completed over 148 educational sessions during the year. These included 114 workshops for faculty development and 30 sessions on medical informatics that were integrated into courses offered by all three colleges. Also it offered 83 orientation sessions for new students, faculty and staff.

AISR staff increased direct student contact time in the JMC MP21 course from three to six hours. And contact time with doctoral students in the required GC550 course grew to ten instructional contact hours.

The AISR-managed summer Computer Fellowship Program resulted in two new resources for use

by all Jefferson students learning anatomy and radiographic anatomy. Students working with Dr. Richard Schmidt produced a DVD for learning dissection skills. And, students worked with Dr. Hector Lopez to develop a self-directed learning module for understanding radiographic positioning.

Several new software systems were developed by AISR Education Services during the year, including:

- Continuing Medical Education modules for Dr. Barry Goldstein and Serge Jabhour on diabetes education.
- A series of short, self-directed learning modules for graduate medical education that focus on 'pay for performance' issues associated with Medicare/Medicaid for Dr. Cynthia Silber.
- A Web site for promoting healthy weight management for Dr. Chris Sciamanna.
- A geriatric education Web site for physicians, nurses and other care givers developed by Drs. Chris Arenson, Julie Beck et and Stephen Kern.

Finally, AISR received another grant from the Bristol-Myers Squibb company for the production of a fourth edition of its program Resident Resources: Cardiovascular Medicine.

Preserving and Promoting Our Historical Heritage

Among AISR's major goals are the preservation of the University's history and the historical record of the published biomedical sciences. Through its small endowment, the Schepartz Fund, the Library was able to acquire an architectural

drawing of the Frank Furness' 1877 Jefferson Hospital and a student notebook dated 1827, 'On Surgery, Dr. McClellan'. Other archival gifts include 160 glass lantern slides depicting WWI medicine made by a JMC 1905 graduate who served at the war's front.

Almost 1,000 oversize, original anatomical drawings were created for instructional purposes by JMC's Daniel Baugh Institute of Anatomy from 1911-1968. The Archives recently received these and has arranged to have them photographed digitally. They will then be made available with metadata in the Jefferson Digital Commons.

Two other important works from the Library's Special Collections were digitized and loaded into the Commons. Samuel D. Gross' A Manual of Military Surgery (1861) and the Confederate version with the same title from 1863 were sent out for scanning and conversion to files capable of full text searching. It is expected that these will receive high traffic by scholars, historians and Civil War enthusiasts. As evidence of the demand for digital copies of items in the Special Collections, during the year 9,447 downloads were made of just the three rare books residing in the Commons.

Once again Dr. Serge Duckett and his wife generously donated to the Special Collections. Their gift of 56 books included:

Traite d'anatomie descriptive...planches, M. H. Cloquet, Paris, 1833. This collection of 36 beautiful plates (steel engravings) of human anatomy provides visual reference for the English translation of the text volume (which was part of the orig-

inal JMC Library holdings).

Wit and its relation to the unconscious, Sigmund Freud (transl. A.A. Brill), NY, 1916. First English edition.

Abrege de l'histoire generale des voyages..., J.F. de la Harpe, Paris, 1780. Sumptuously illustrated in 21 volumes, this "encyclopedia" of world cultures included the first published report of Captain Cook's circumnavigation.

Goals for 2006-2007

AISR goals are derived from its mission statement and are developed by its senior staff at an annual retreat and through a variety of working groups. The following are some of the major goals for the new year:

- Test a wireless PDA-based solution for an audience response system to be used in classrooms and auditoriums.
- Renovate the Herbut Auditorium to be a more attractive and functional educational space.
- Implement a new system for auto-recording of the audio and synchronization of Power Point presentations by faculty in select auditoriums. These files will then be automatically transferred by the system to the appropriate sections in Pulse so that students may view and hear lectures on personal computers, PDA's or MP3 players.
- Replace the aging server and upgrade the software for the Library's information system: SIRSI which operates the online catalog, is used for cataloging, circulation of books and journals, etc.

- Move forward with applying Webcasting and video over the Internet technologies to address educational needs of the University and Hospital.
- Conduct an analysis of how students, faculty, residents, hospital staff and others use AISR's online resources and physical facilities.
- Meet with the dean of the new School of Pharmacy and any new faculty and review the needs of the School both in terms of book/journal resources as well as educational support.

Edward W. Tawyea
Director of AISR and University Librarian

Table 1
Use of Library Resources

	2005 - 2006	2004 - 2005
Circulation of Print Books and Journals	25,590	29,524
Number of Books and Journals Reshelved	58,162	87,504
Electronic Journal Articles Viewed *	357,296	N/A
Logins on AISR Public Computers	269,344	284,234
Reference Questions Answered	28,679	27,333
Ovid Database Searches	130,680	73,848
JEFFLINE Total Page Views	7,853,061	7,502,687
JEFFLINE Total Unique Visits	2,304,568	1,837,463
MD Consult Launches	52,710	64,373
Micromedex Launches	25,694	25,538
Scopus Launches	8,065	N/A
Electronic Book Usage		
Access Medicine Collection Unique Sessions	31,794	N/A
STAT! REF Unique Sessions	32,570	N/A
Volumes Added to the Collection	5,915	6,350
Volumes Withdrawn from the Collection	2,586	3,263
Total Volumes in the Collection	210,206	206,877

* Does not include use of resources within MD Consult.



Alumni Association

The major goals of the Alumni Association are as follows:

- Strengthening ties with the alumni and post graduate alumni to foster greater involvement with Jefferson.
- Introducing the students and residents to the work of the Alumni Association through programs and events to encourage them to become active alumni after they leave.
- Increasing both the participation rate and the dollar amount contributed to Annual Giving in support of the College by alumni and postgraduate alumni.

The Alumni Association's programs, events and publications are designed to accomplish these goals.

Alumni Reunion Weekend was held in the fall on October 7- 8, 2005. The Alumni Banquet was held on Friday evening at the Union League during which the Alumni Achievement Award was presented to James P. Bagian, MD '77. The Saturday morning program included the Women's Forum Breakfast, an Eakins Gallery Dialogue and 12 clinic presentations. The Dean's luncheon followed. On Saturday evening,

10 reunion dinners were held at the Union League, and two were held in Jefferson Alumni Hall.

During the year, the Alumni Association holds receptions for alumni to bring them together in a social setting to hear the latest news about Jefferson from members of the administration or faculty. Alumni receptions were held during the annual meeting of the American Medical Association in Chicago on June 10 and during the annual meeting of the Association of American Medical Colleges in Washington, DC on November 6. In addition, the Alumni Association helped to arrange several alumni receptions at specialty meetings in various cities across the country.

The Alumni Association sponsors many events for our medical students throughout the year. Incoming freshmen and their parents were welcomed with coffee and danish on August 5 during Orientation Week. At Opening Exercises, the freshmen received their white coats, a symbol of the physician, as a gift from the Alumni Association.

Career Day for sophomore and junior students was held on December 7. After an explanation of the match process, students had the opportunity to choose five presentations from among

various specialties offered. Later, students and alumni enjoyed a light supper in the cafeteria, giving students an additional opportunity to discuss career alternatives with alumni.

A Beef and Brew reception for the freshmen, held on February 17, gave them the opportunity to meet Jefferson alumni in an informal setting. The freshmen also had a chance to talk with our alumni during small luncheons in the Faculty Club hosted throughout the year by Dr. Marone. The Mentor Program links freshmen and sophomores with local alumni who offer practical career advice.

The Parents' Day Program allows second-year students to share a bit of their medical school experience with parents and spouses. On March 10, Pauline Park, MD '82 opened the program with a brief history of the Medical College. Three faculty members gave presentations, followed by lunch in the cafeteria and tours of the campus. President Robert Barchi, MD, PhD, and Dean Thomas J. Nasca, MD '75 were present to welcome the students and their guests.

For senior students who are traveling across the country for postgraduate program interviews, the Host Program arranges over-

night accommodations in the homes of local alumni. During Class Day on the eve of graduation, the senior with the highest cumulative record is awarded the Alumni Prize. This year the recipient was Adam B. Woldow. Later that day, seniors and their guests were feted at a reception hosted by the Alumni Association.

The Alumni Association was one of the sponsors of the AOA spring banquet, the Jeff HOPE charity ball, the 2005 Clinic and the Black and Blue Ball.

Alumni can stay in touch with Jefferson and each other through the articles and class notes section of the Alumni Bulletin. The Bulletin, which is published and mailed to all constituents four times a year, is also available in electronic format on the Inter-

net. The Alumni Association's home page on the Internet is another way for alumni to stay in touch with Jefferson. In addition to learning about ongoing programs and upcoming events, alumni can register for our new password-protected online community, where alumni can contact former classmates, search geographic areas for Jefferson alumni, change their address, send in class notes and make online contributions to Annual Giving.

At the Annual Business Meeting on April 19, James W. Fox, MD '70 passed the gavel to incoming president Lorraine C. King, MD OBG '75, REN '77. The slate of nominees elected to office was: president-elect John H. Moore, MD GS '85; vice presidents Barbara G. Frieman, MD '80, Deb-

ra Copit, MD '85 and George Valko, MD '86; and secretary James J. Purtill, MD '93. New members of the Executive Committee and new honorary members of the Alumni Association were welcomed.

The 58th Annual Giving campaign concluded on June 30, 2006. We thank the 2,844 alumni, 179 postgraduate alumni, as well as non-graduate faculty, widows, and friends who contributed \$2,001,642 to advance the mission of the Medical College.

Phillip J. Marone, MD '57
Associate Dean for Alumni Relations
Executive Director of the Alumni Association



Jefferson University Physicians

During FY06, Jefferson University Physicians (JUP) made groundbreaking changes in its governing infrastructure, resulting in a more physician-driven organization. The new management and committee configuration signals a rebirth for JUP, and will enable us to create a more market-responsive and patient-centered environment.

Our new organizational structure and governance model is particularly pertinent as we move towards the adoption of an electronic medical record (EMR). A sign of our renewed accountability to patients and payers is our contract with Allscripts. The implementation plan associated with the adoption of an EMR will facilitate the continued redesign of our care delivery model and promote uniformity of practice standards to maximize the use of this technology. Ultimately, these gains will move JUP closer to its vision of becoming a more integrated multi-specialty group practice.

Our reorganized management structure, advancement toward EMR, and involvement in the campus master plan, provide a firm foundation for continued progress in our Clinical Transformation Initiative (CTI). CTI

seeks to maximize the patient experience by standardizing clinical and practice management processes. Agreement on JUP Practice standards was solidified in March during our Strategic Retreat which is a critical first step in the process. Of note, the vision for a JUP ambulatory care facility moved closer to reality this year through the development of the Jefferson campus master plan. This University led initiative included the conceptualization of a location for a JUP ambulatory care facility on the center city campus. As featured in the plan, the ambulatory care facility will anchor a planned renaissance of the Jefferson “clinical” campus.

Highlights of specific FY 06 accomplishments are detailed in the following segments.

Strategic Highlights

This year, Jefferson University Physicians completed several key organizational initiatives, providing the foundation for the organization’s continued growth. These initiatives include the following:

- Electronic Medical Record (EMR) contract negotiations with Allscripts were finalized in February 2006. Per our implementation plan, preparation for

this new technology will begin this Fall in earnest. The Clinical Transformation component will necessitate significant participation on the part of the faculty and practice personnel to ensure success.

- Two new external survey tools to measure and benchmark physician and patient satisfaction were adopted. These tools are designed to enhance faculty feedback and customer responsiveness.

- JUP concluded extensive negotiations with Independence Blue Cross (IBC), resulting in a three-year contract. The new contract includes enhanced rates and a pay-for-performance metric.

- In October, the Sixth Annual JUP Golf Outing at the Philadelphia Cricket Club drew the participation of more than 180 golfers and netted another \$75K capital contribution to the Jefferson Medical College’s Clinical Skills Center.

Financial Highlights

JUP enjoyed another strong financial year in FY06. The year’s financial performance was punctuated by the following:

- Charges were \$25.4 million or 5.54% ahead of budget and \$33 million or 7.18% ahead of FY05.

- Receipts were \$14.7 million or 8.21% ahead of budget and \$14.1 million or 7.87% ahead of FY05.

- Departments continued to retain earnings for future strategic initiatives.

- Once again, JUP realized a reduction in billing costs and its overhead assessment, compared to budget. This was derived from better-than-expected revenues and continued cost containment efforts.

Health Plan Services Highlights

Health Plan Services continued to maximize JUP's payor relations, contracting, provider relations, physician enrollment and credentialing. Highlights of the past year include:

- Successful negotiation of a new rate agreement with IBC.

- Attained delegated credentialing from IBC and Aetna, two major JUP physician health plans.

- Developed a campus-wide application process for new faculty hires.

- Continued enhancement and expansion of mechanisms to track and monitor the status of physician insurance plan participation. This will enhance reporting, enrollment and delegated credentialing processes.

Practice Operations Highlights

Practice Operations continued to evaluate methods to further optimize the JUP practice environment. This year, emphasis was placed on initiatives that facilitate workflow and enhance the patient experience. These include:

- Front-End Workflow Analysis—conducted site visits to evaluate how practices conduct the intake process in an effort to streamline the patient experience. Issued a guide for patients, standard across the JUP enterprise, containing common policies and universal phone prompts. The patient guide includes all practice locations and phone numbers as well as a campus map.

- IDX Web Conversion—All JUP practices were successfully converted to the Web-based version of the IDX practice management system. JUP also implemented a new registration workflow to use the IDX system for shared information and a reduction in patient effort. As a result, paper registration forms are only completed once and signed documents are scanned into the system for communal JUP access.

- Service Standards—Developed a JUP Service Standards booklet to facilitate the creation of the ideal patient experience. Each JUP employee received this booklet as well as Service Excellence training.

Business Service Highlights

Physician Business Services continued to capitalize on a greater share of the IDX System's electronic capabilities. Capturing these technological capabilities, and continued front and back end operational improvements, were the primary drivers of JUP's success in FY06. Specific accomplishments include:

- Implementation of an electronic charge interface for the Department of Emergency Medicine.

- Implementation of electronic remittance-posting for Keystone Health Plan East.

- Development of HIPAA-compliant electronic specification for Medicare and commercial secondary claims. This action allows us to reduce costs related to forms generated, and also enables us to reallocate existing staff to more revenue-generating processes.

- Exceeded FY06 gross collectibility targets.

- Decreased days in Accounts Receivable from 62.5 days in June 2005 to 53.01 days in June 2006.

- Participated in the UHC Faculty Practice Plan Solution Center's Revenue Cycle benchmarking survey. This survey incorporated 61 academic medical center participants. JUP ranked in the top ten for two of the four key indicators.

Outlook for FY07

JUP's outlook for the coming year looks bright, given the foundation laid in FY06. With faculty productivity in several departments at peak levels, and the practice plan enjoying record revenue growth, the challenge is to not become complacent with the successes of the past. To this end, management remains vigilant in seeking and implementing initiatives that will safeguard JUP's competitive edge. Several initiatives are planned for FY07, but of these none stand out more than the Electronic Medical Records (EMR) project—which is scheduled for a three year roll-out beginning in FY 07. The importance of the EMR project

for JUP cannot be overstated given the significant amount of campus-wide investment in the project. Beyond the investment, however, the EMR project represents an inflection point for JUP as the project signals to JUP's various constituents an organizational recommitment to the highest quality of patient care and patient safety. As constructed, the EMR project will be far more

than automation of our care processes. Rather, the project will provide JUP with a platform to raise our clinical care and business processes to the highest level of efficiency and effectiveness. Of necessity, success of the project will require a new discipline, as we redesign our care delivery model in response to patient and market demands. As such, we will be working closely with JUP

providers to define and implement "best practice" standard of care throughout JUP. In FY07, we plan to return to basics by creating the ideal patient experience for all of our patients. The EMR project will help enable this goal.

John Ogunkeye, MS

*Executive Director,
Jefferson University Physicians*

William Keane, MD

*Medical Director,
Jefferson University Physicians*

Statistical Abstract

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Figure 1
Undergraduate Science GPA

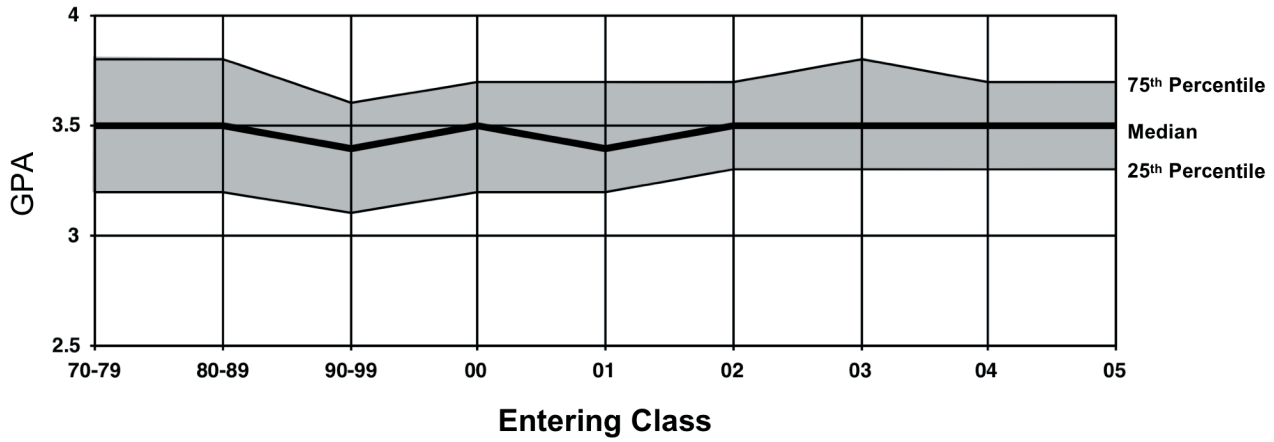


Figure 2
Undergraduate Non-Science GPA

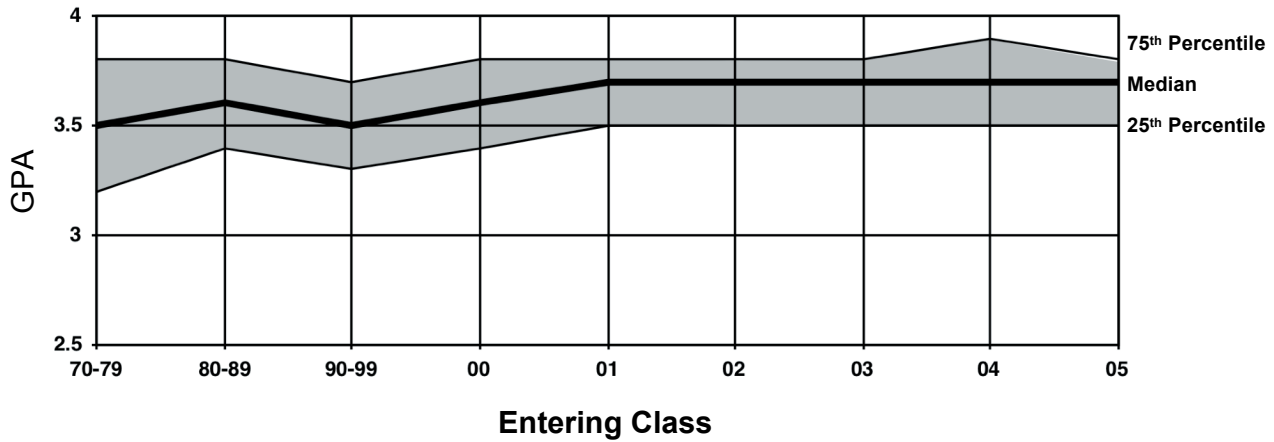
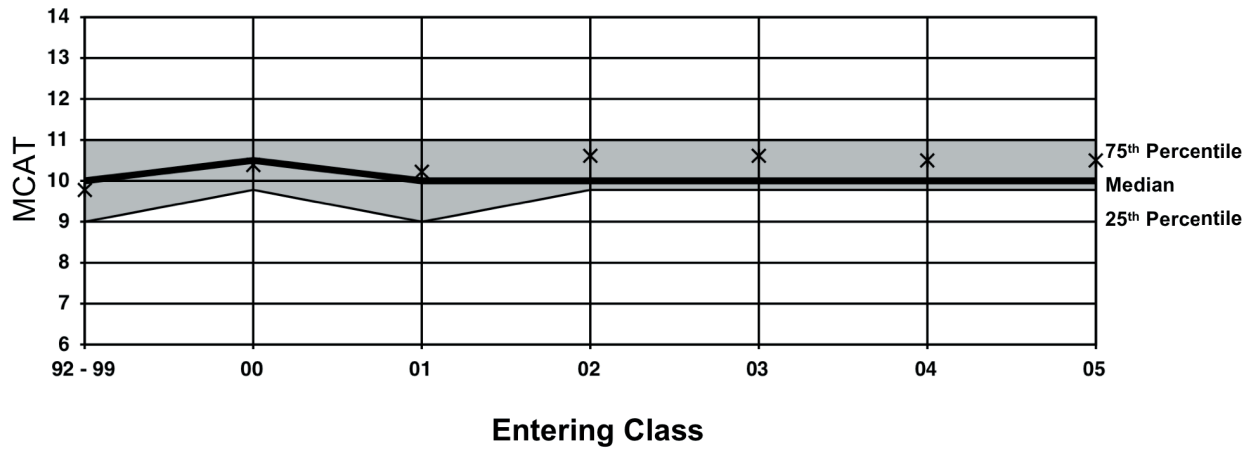


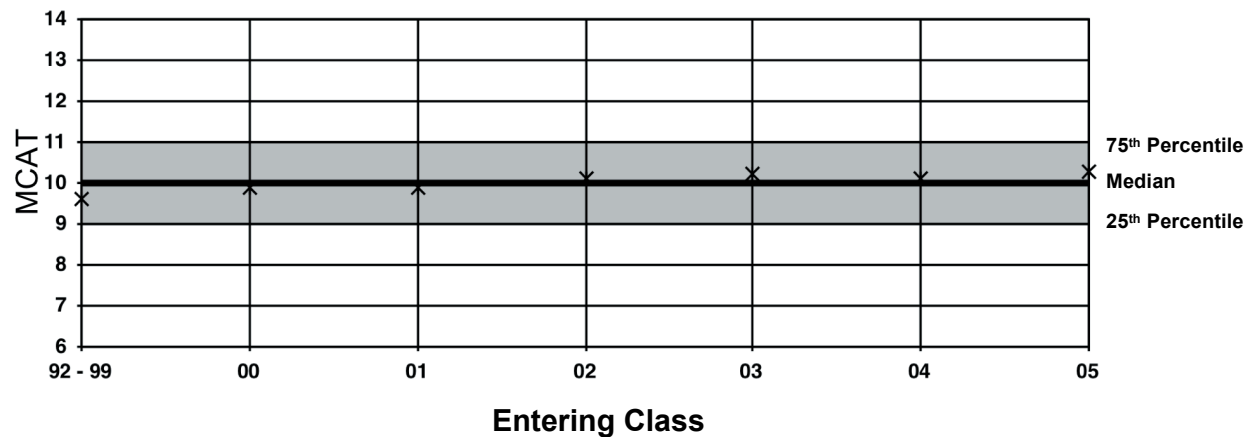
Figure 3
MCAT Biological Sciences¹



X = Mean

¹ Highest score was used for students with more than one set of scores.

Figure 4
MCAT Verbal Reasoning¹



X = Mean

¹ Highest score was used for students with more than one set of scores.

Figure 5
Percent of Women Matriculants

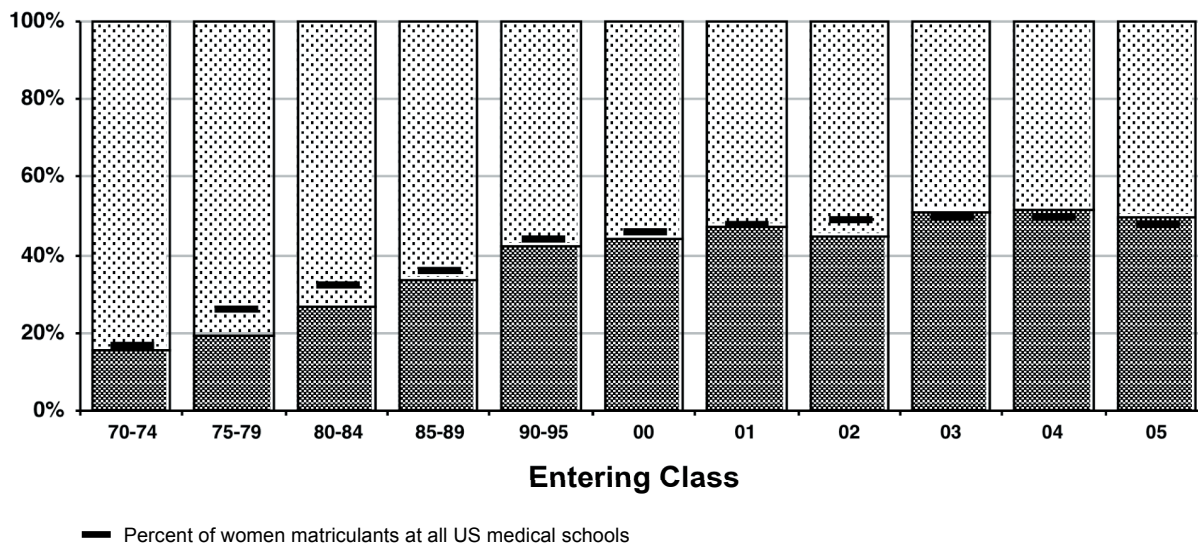
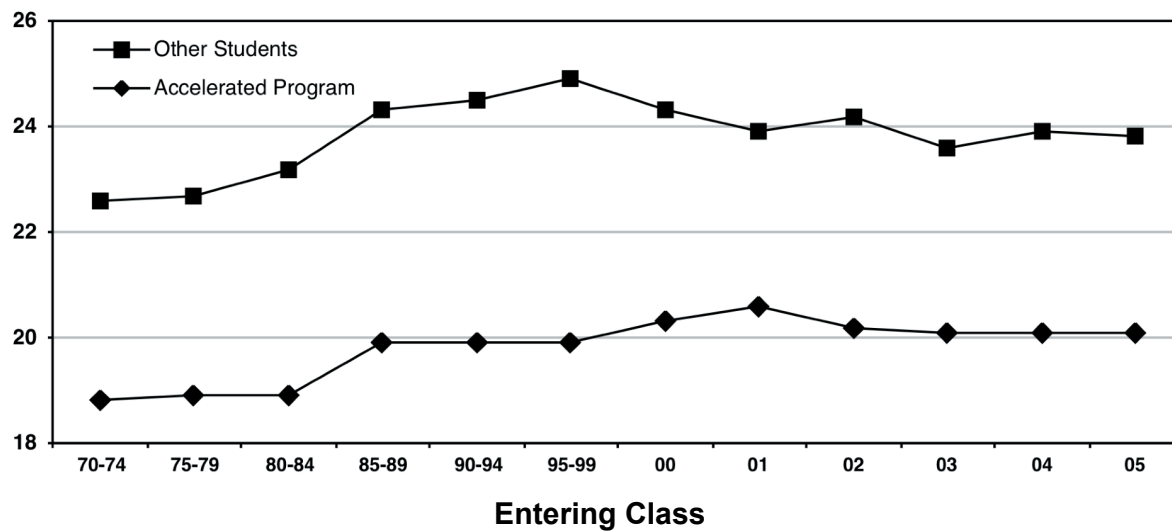
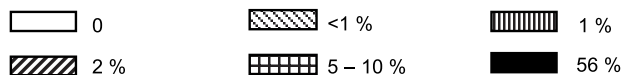
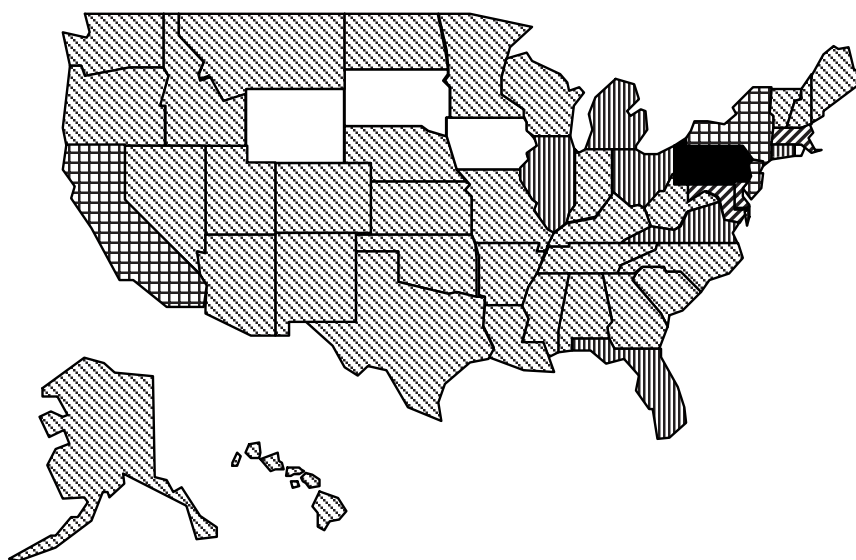


Figure 6
Mean Age at Matriculation



¹ The accelerated program had been a 5-year combined BS-MD program before 1984. During the transition year 1984, no students were admitted to the program. Thereafter, it became a 6-year program.

Figure 7
Home State of Matriculants
Entering Classes of 1970 - 2005



Frequency Distribution ¹	
State	n
Pennsylvania	4,475
New Jersey	830
Delaware	675
California	429
New York	409
Maryland	151
Massachusetts	134
Connecticut	85
Florida	84
Virginia	72
Michigan	61
Ohio	53
Illinois	49
Washington	40
Texas	33
Hawaii	32
Colorado	32
North Carolina	32
Arizona	25
Georgia	23
New Hampshire	21
Rhode Island	19
Minnesota	16
Wisconsin	16
Oregon	15
Alabama	14
District of Columbia	14
Indiana	13
Utah	13
West Virginia	12
Maine	11
Tennessee	10
Louisiana	10
Missouri	9
Kentucky	8
Nevada	8
Kansas	7
Vermont	6
Idaho	5
Mississippi	4
South Carolina	4
New Mexico	4
Arkansas	3
Nebraska	3
Oklahoma	3
Montana	2
North Dakota	2
Alaska	2
Total	7,978

¹ A total of 47 students from foreign countries, 8 students from Puerto Rico, 3 students from Canada and 5 student from the US Virgin Islands are excluded.

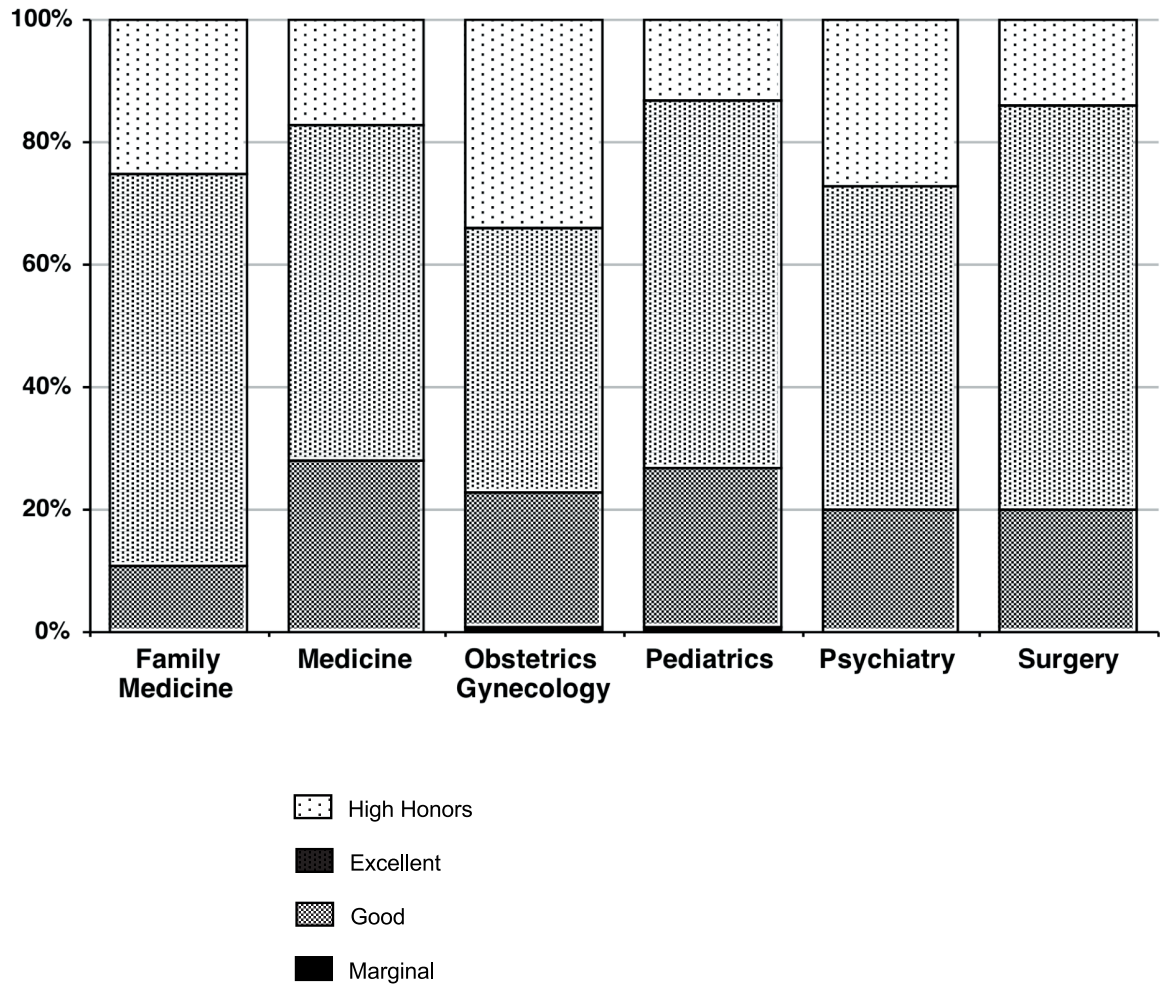
Table 1
Graduation, Transfers, and Attrition
Entering Classes of 1970 - 2002

Entering Class		Graduated			Transfer	Did Not Graduate		
		On-time	Late			Withdrawn		Dismissed
			Academic	Other*		Not Failing	Failing	
Year	Size							
70	210	181	11	10	1	6	1	0
71	212	199	2	2	2	3	2	2
72	223	207	3	7	0	2	1	3
73	223	202	7	4	1	4	2	3
74	223	209	4	3	3	1	1	2
75	223	209	6	3	2	2	0	1
76	223	202	8	8	2	3	2	1
77	223	204	9	3	2	1	1	3
78	223	208	4	1	4	2	0	4
79	223	201	8	4	3	2	0	5
80	223	200	11	4	1	1	0	6
81	223	195	13	3	4	0	0	8
82	223	204	6	5	2	0	0	6
83	223	195	12	7	3	4	0	2
84	223	200	9	4	5	3	0	2
85	223	205	4	4	2	4	2	2
86	223	191	13	5	4	2	2	6
87	222	190	10	9	6	2	1	4
88	225	199	11	9	3	1	1	1
89	225	191	10	15	3	4	0	2
90	223	187	10	11	2	2	0	11
91	223	192	10	8	3	4	1	5
92	245	217	9	13	2	2	0	2
93	226	198	9	11	1	0	2	5
94	224	207	3	10	2	1	1	0
95	224	199	7	12	4	0	0	2
96	223	195	6	16	5	0	0	1
97	223	194	7	19	0	2	0	1
98	223	199	7	14	1	0	1	1
99	223	181	21	20	0	1	0	0
00	223	198	12	13	0	0	0	0
01	223	199	8	11	0	3	1	1
02	227	197	10	16	1	3	0	0

* Includes special programs (MD-PhD, MD-MBA) and delayed graduates for non-academic reasons.

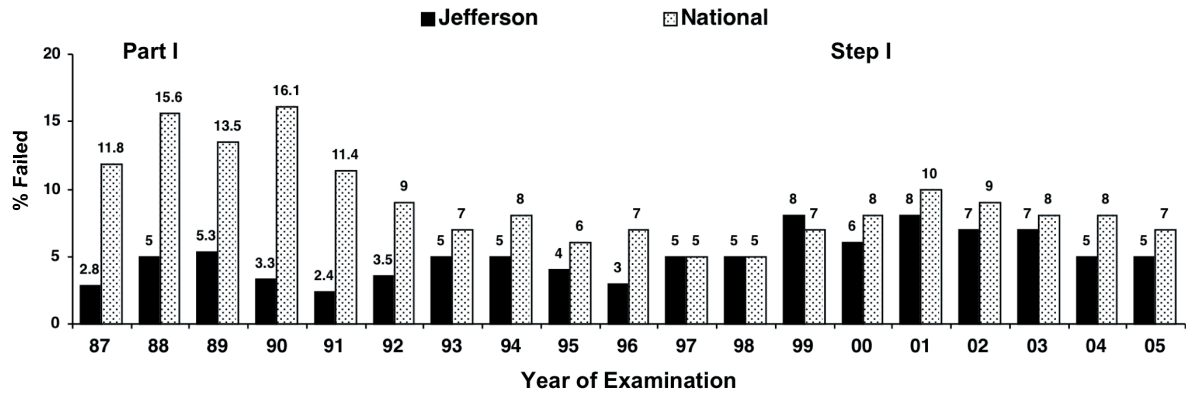
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Figure 8
Clinical Ratings of Students in Six Core Clerkships*
 Graduating Class of 2006

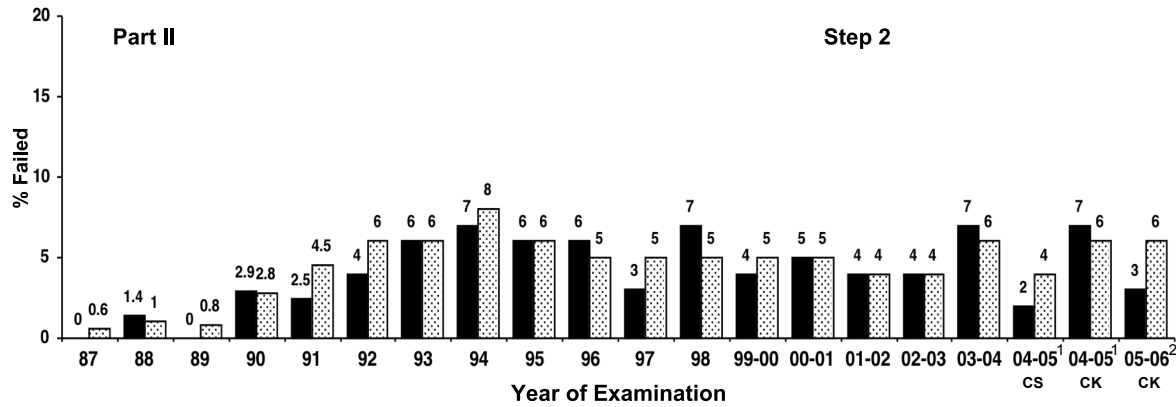


* Faculty's global rating of students' clinical competence.

Figure 9
United States Medical Licensing Examinations (USMLE)
National Board Examinations*

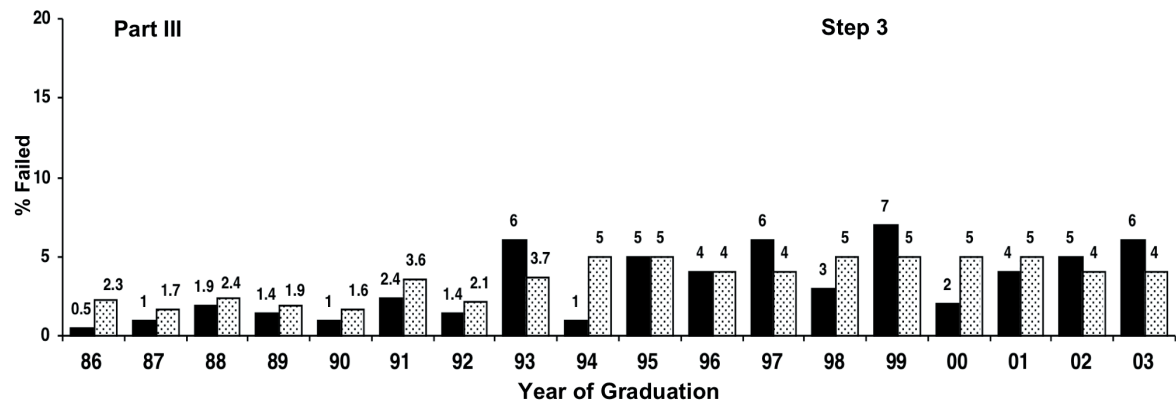


* Data on Part I are presented for the candidate reference group who took the examination for the first time each year and who were two years from expected graduation. The USMLE Step 1 replaced Part I in June 1991.



* Data on Part II are presented for the candidate reference group who took the examination for the first time each year and who were one year from expected graduation. The USMLE Step 2 replaced Part II in September 1992.

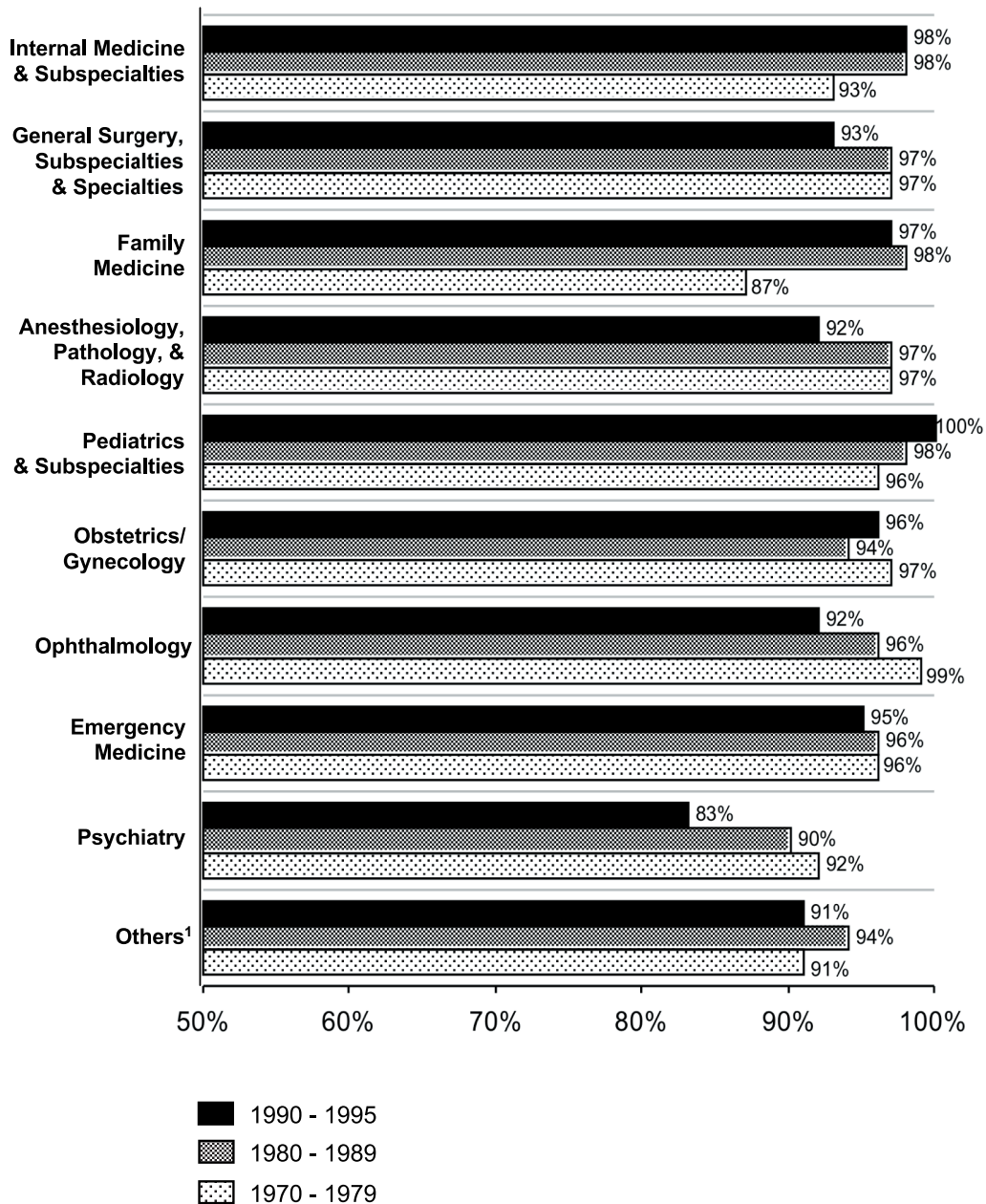
¹ Starting from July 2004, Step 2 reports 2 scores, one for Clinical Skills (CS) and another for Clinical Knowledge (CK). ² CS scores were not available.



* Data on Part III are presented for graduates who took the examination for the first time in each year. The USMLE Step 3 replaced Part III in June 1994.

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Figure 10
Board Certification Rates of Alumni*
Graduating Classes of 1970 - 1995



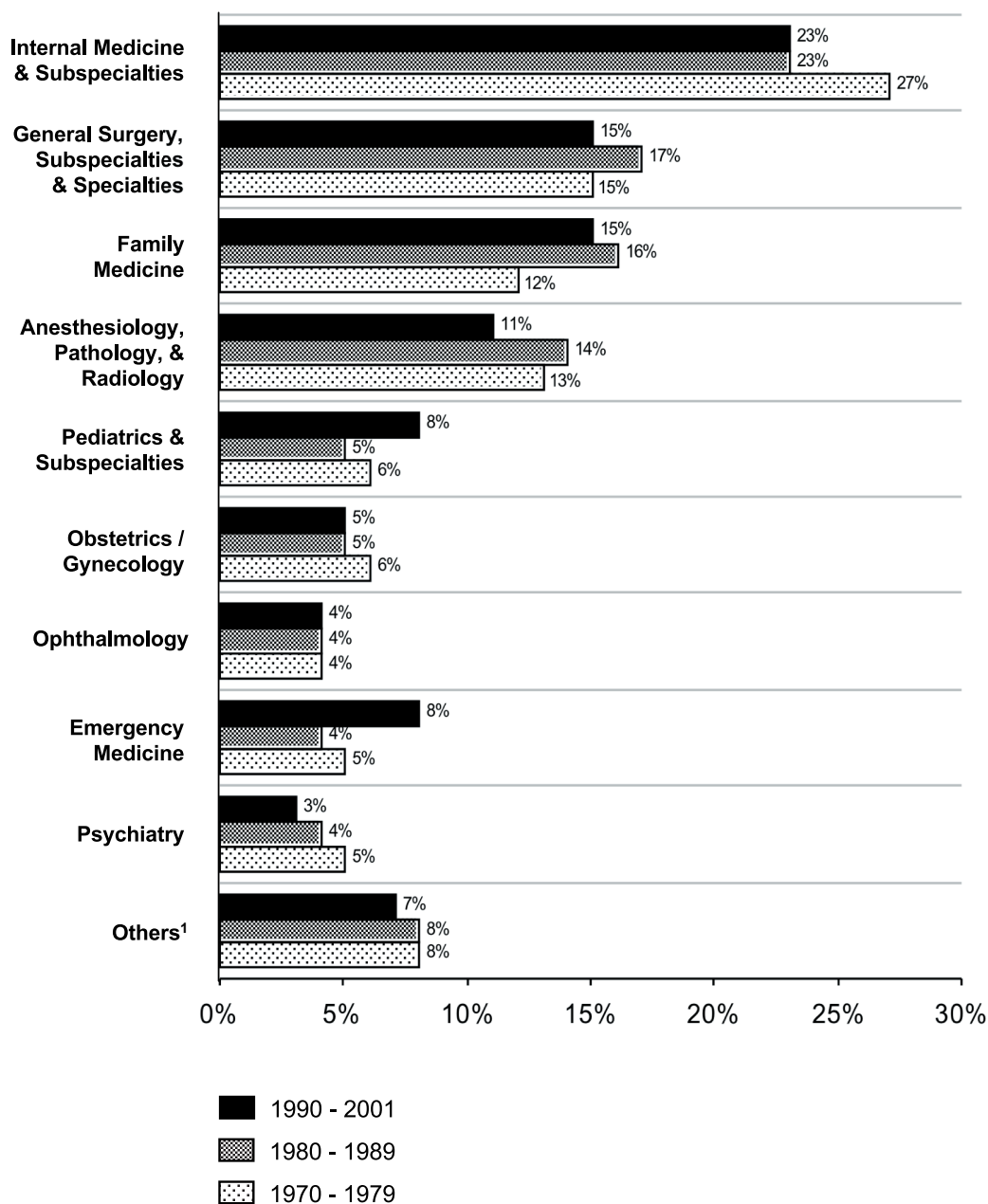
* Percentages are based on the total graduates in each specialty.

¹ "Other" includes 24 specialties and subspecialties, each representing less than 1.7 percent of total alumni.

Sources: American Medical Association.

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Figure 11
Specialties of Alumni*
Graduating Classes of 1970 - 2001



* Sources: American Medical Association, American Board of Medical Specialties,

¹ "Other" includes 24 specialties and subspecialties, each representing less than 1% of the total alumni.

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Table 2
Location of First Year Postgraduate Training

State	Year of Graduation			
	1970 - 1979 (n = 2,011)	1980 - 1989 (n = 2,167)	1990 - 1999 (n = 2,153)	2000 - 2006 (n = 1,533)
Pennsylvania	47%	51%	44%	44%
New York	11%	6%	5%	9%
California	5%	6%	8%	6%
Delaware	5%	6%	5%	5%
New Jersey	2%	4%	4%	3%
Massachusetts	3%	3%	3%	4%
District of Columbia	3%	2%	3%	3%
Maryland	2%	2%	3%	3%
Virginia	2%	3%	3%	2%
Ohio	3%	2%	3%	2%
Illinois	2%	1%	2%	2%
Connecticut	3%	2%	2%	2%
North Carolina	1%	1%	2%	1%
Florida	2%	1%	1%	1%
Michigan	1%	1%	1%	1%
Texas	1%	1%	1%	1%
Georgia	1%	1%	1%	1%
Rhode Island	<1%	1%	1%	1%
Washington	1%	<1%	1%	1%
Hawaii	<1%	1%	1%	<1%
Others‡	4%	5%	6%	7%
Total %	100%	100%	100%	100%

† Percentages are calculated based in total graduates in each time period.

‡ States with less than 1% of graduates in all time periods.

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Table 3
Percentage[†] of Living Graduates by Current State of Residence

State of Residence	Year of Graduation		
	1970 - 1979 (n = 1,942)	1980 - 1989 (n = 2,149)	1990 - 2000 (n = 2,349)
Pennsylvania	37%	38%	30%
New Jersey	6%	8%	9%
California	7%	6%	9%
New York	5%	5%	5%
Florida	6%	5%	2%
Delaware	4%	4%	4%
Massachusetts	3%	3%	5%
Maryland	2%	3%	5%
Virginia	2%	3%	4%
North Carolina	2%	2%	2%
Ohio	2%	2%	2%
Texas	2%	1%	2%
Illinois	1%	1%	2%
Georgia	1%	2%	2%
Connecticut	2%	1%	1%
Washington	1%	1%	1%
Colorado	1%	1%	1%
Others [‡]	13%	13%	9%
Total %	100%	100%	100%

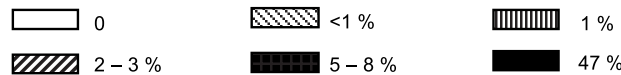
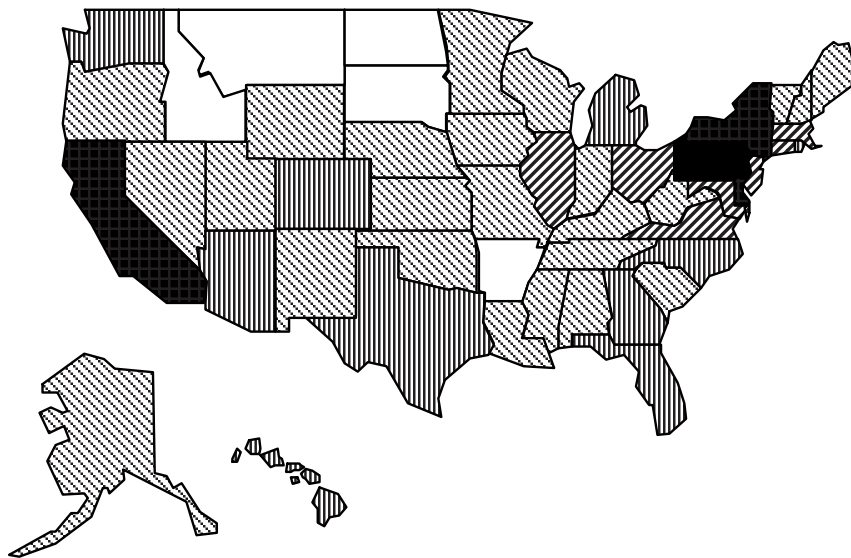
Source: American Medical Association.

† Percentages are calculated based in total graduates in each time period.

‡ States with 1% or less of graduates in all time periods.

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Figure 12
Location of First Year Postgraduate Education
Classes of 1970 - 2006*

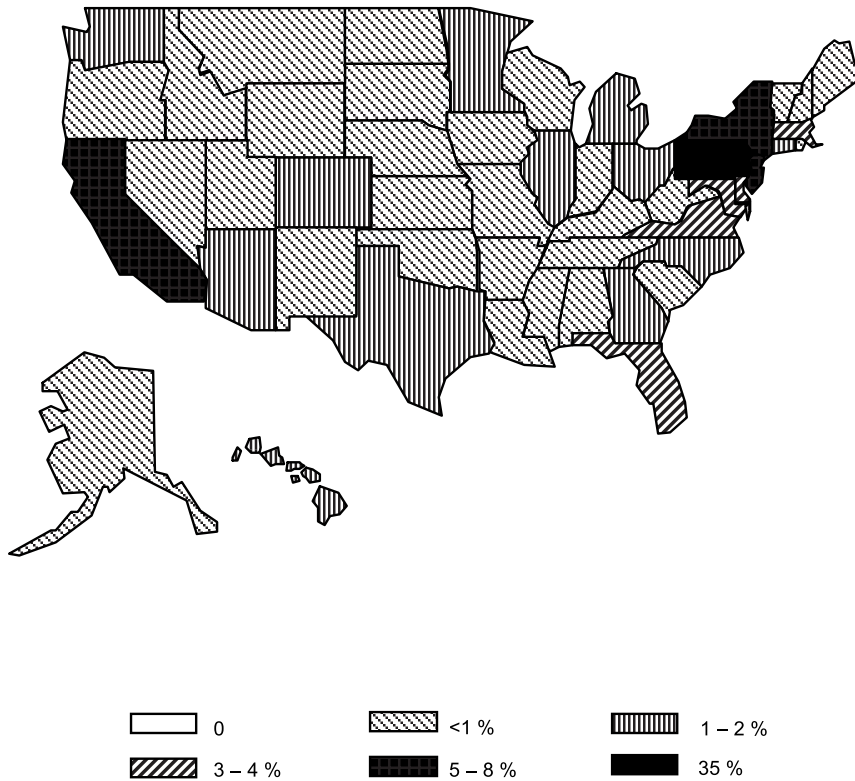


Frequency Distribution ¹	
State	n
Pennsylvania	3,659
New York	595
California	469
Delaware	422
New Jersey	253
Massachusetts	236
District of Columbia	202
Virginia	200
Ohio	189
Maryland	179
Connecticut	157
Illinois	118
Florida	105
North Carolina	95
Texas	95
Michigan	95
Georgia	61
Rhode Island	59
Washington	55
Hawaii	50
Arizona	45
Colorado	43
Missouri	37
Minnesota	36
Oregon	33
New Hampshire	32
Maine	32
Wisconsin	28
South Carolina	27
Vermont	23
Louisiana	21
West Virginia	19
Tennessee	16
New Mexico	15
Indiana	10
Utah	10
Iowa	9
Kentucky	9
Mississippi	7
Alabama	6
Nevada	5
Kansas	5
Oklahoma	3
Nebraska	2
Wyoming	1
Total	7,768

* Sources: National Residency Match and Jefferson Alumni Office.

¹ There were 96 graduates who pursued their residency in Canada or other countries, or pursued research or deferred their residency in this time period.

Figure 13
Current State of Residence of Living Alumni*
Graduating Classes of 1970 - 2000



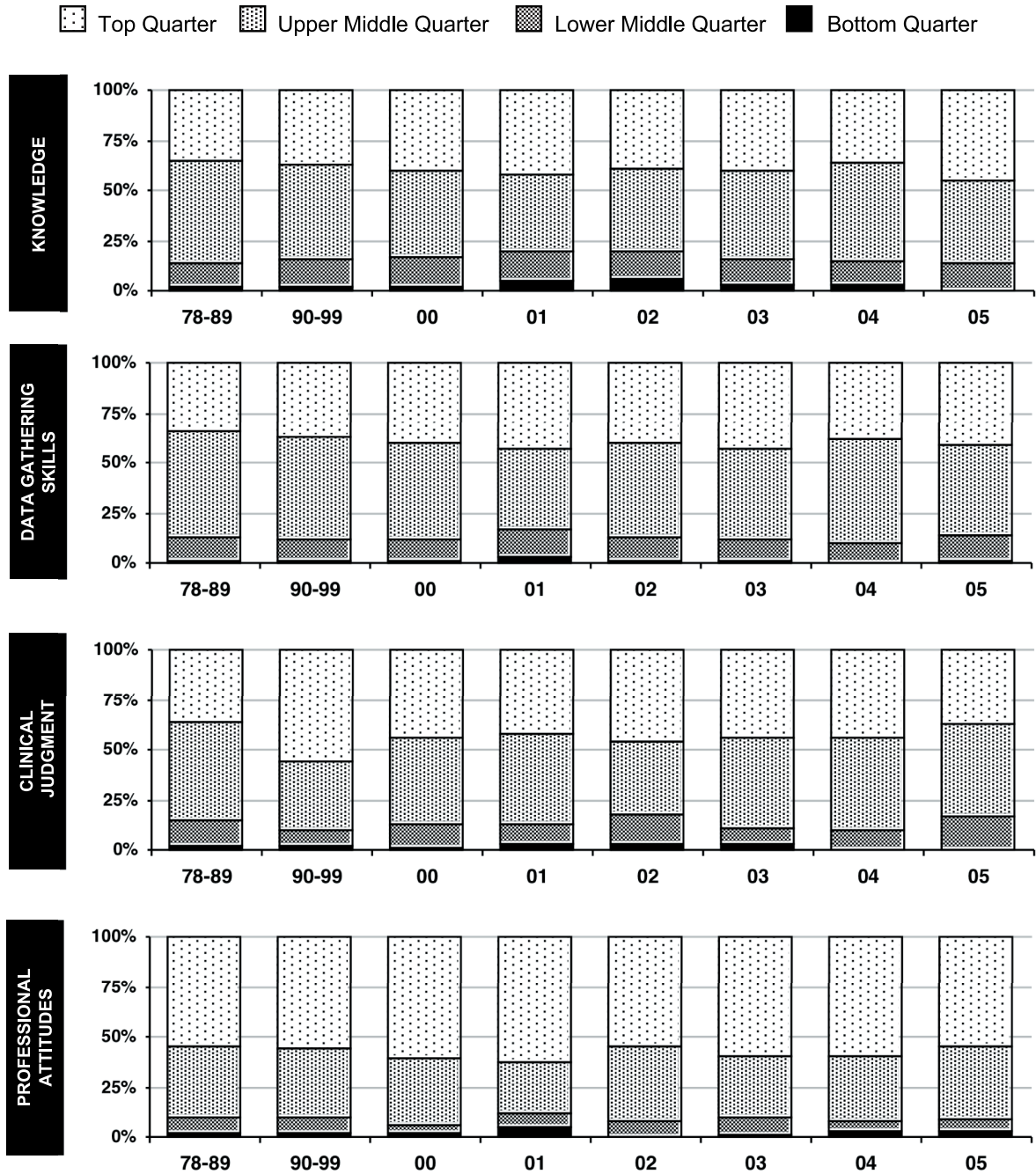
Frequency Distribution ¹	
State	n
Pennsylvania	2,236
California	513
New Jersey	475
New York	314
Florida	287
Delaware	243
Massachusetts	242
Maryland	227
Virginia	202
North Carolina	156
Ohio	120
Texas	112
Georgia	97
Illinois	90
Washington	87
Connecticut	85
Colorado	77
Arizona	74
Michigan	57
South Carolina	51
Oregon	49
Tennessee	44
Maine	43
New Hampshire	41
Wisconsin	39
Hawaii	37
Indiana	37
Rhode Island	36
Minnesota	32
District of Columbia	31
Missouri	31
Nevada	25
Kentucky	25
Vermont	25
New Mexico	21
West Virginia	20
Louisiana	19
Alabama	18
Oklahoma	17
Utah	17
Kansas	14
Idaho	11
Iowa	10
Mississippi	10
Montana	10
Arkansas	8
Alaska	6
Wyoming	6
Nebraska	5
North Dakota	3
South Dakota	1
Total	6,440

* Sources: American Medical Association.

¹ A total of 6 alumni residing in foreign countries, 4 in Puerto Rico, and 4 in U.S. territories are not included.

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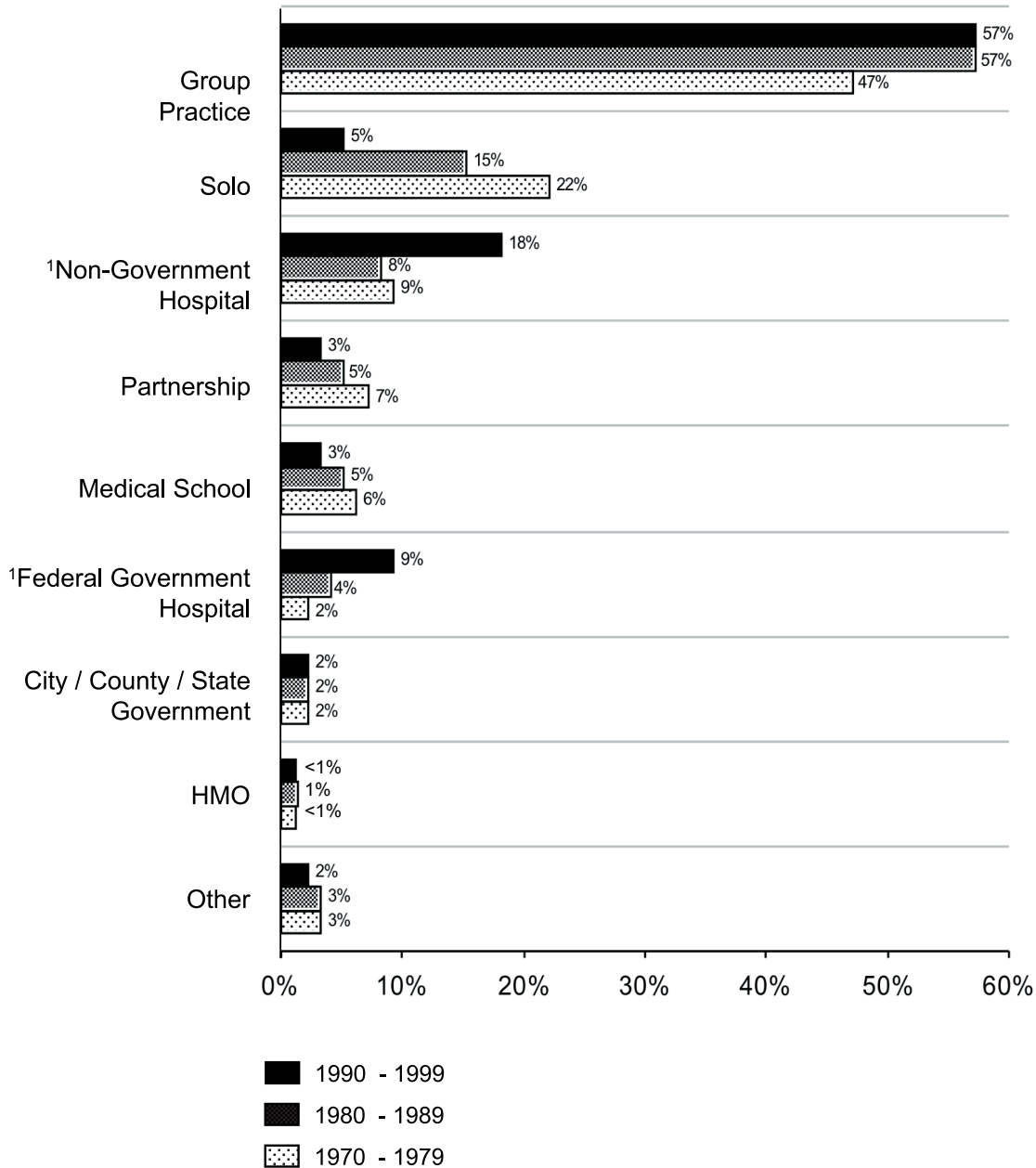
Figure 14
Program Directors' Ratings in the First Postgraduate Year*
Graduating Classes of 1978 - 2005



- Approximately 75% of the graduates are represented in the figures. Data collection is not yet completed for the class of 2005. Program directors rated the graduates on a 4-point Likert scale comparing them with all graduates they ever supervised.

Center for Research in
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 July 2006

Figure 15
Current Practice Setting of Alumni*
Graduating Classes of 1970 - 1999



* Source: American Medical Association. Data on current practice setting were available for 74% (n=4,608) of the alumni in this time period.

¹ Graduates in residency programs are excluded.

Center for Research in
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 July 2006

Table 4
Full-Time Salaried Medical School Faculty Appointments of Alumni
Graduating Classes of 1970 - 2002 (n=6,383)*

Medical School	N ¹	Medical School	N ¹
Jefferson Medical College	254	University of Texas - Dallas	6
University of Pennsylvania	75	Albany Medical College	5
Drexel University	43	Bowman Gray School of Medicine	5
Harvard Medical School	39	East Carolina University	5
UMDNJ-Piscataway	34	George Washington	5
Pennsylvania State University	33	Mt. Sinai Medical School	5
University of Pittsburgh	29	Northeastern Ohio Universities	5
Albert Einstein University	22	Oregon Health Services University	5
Mayo Medical School	22	SUNY - Stony Brook	5
Temple University	21	University of California - Irvine	5
Cornell University	19	University of Chicago	5
Uniformed Services	19	University of Cincinnati	5
University of Maryland	19	University of Connecticut	5
Case Western Reserve University	17	University of Georgia	5
Johns Hopkins	17	University of Illinois	5
University of Colorado	16	University of Utah	5
University of Washington	16	Vanderbilt University	5
Tufts University	13	Virginia Commonwealth University	5
UCLA	13	Eastern Virginia	4
University of Massachusetts	13	Loma Linda University	4
University of Wisconsin	13	Southern Illinois University	4
Georgetown University	12	Texas at Galveston	4
Columbia University	11	University of California - San Diego	4
Dartmouth Medical School	11	University of Indiana	4
Emory University	11	University of Miami	4
Brown University	10	University of South Florida	4
University of California - San Francisco	10	University of Vermont	4
University of Florida	10	SUNY - Upstate - Syracuse	3
Yale University	10	University of Alabama	3
Baylor College of Medicine	9	University of Hawaii	3
New York Medical College	9	University of Minnesota / Minneapolis	3
Ohio State University	9	University North Carolina - Chapel Hill	3
University of California - Davis	9	University of South Carolina - Columbia	3
University of Virginia	9	Washington University - St. Louis	3
Northwestern University	8	Wayne State	3
SUNY/Buffalo	8	Wright State University	3
Boston University	7	Loyola	2
Duke University	7	Medical University of South Carolina	2
UMDNJ - Newark	7	Rush Medical College	2
University of Rochester	7	University of Arkansas	2
Kentucky University College of Medicine	7	University of Iowa	2
East Tennessee	6	West Virginia University	2
Medical College of Wisconsin	6	Saint Louis University	2
New York University	6	Stanford University	2
Tulane University	6	University of Louisville School of Medicine	2
University of Arizona	6	University of Missouri - Columbia	2
University of Michigan	6	University of Nevada	2
University of New Mexico	6	University of Puerto Rico	2
University of Oklahoma	6	Schools with one Jefferson graduate	13
University of Southern California	6		
University of Tennessee	6		
		Total	1,179

* Source: Association of American Medical Colleges (AAMC) and internal sources.

¹ Approximately 18% of the graduates had a full-time salaried faculty appointment at some point during the past five years.

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Table 5
Percentage of Seniors Who Were Satisfied or Very Satisfied
With the Jefferson Medical College Educational Programs*

Graduating Classes	Academic Year			
	First	Second	Third	Fourth
1992	81	85	97	97
1993	78	79	94	95
1994	80	84	95	95
1995	85	72	87	94
1996	85	49	90	94
1997	72	43	82	89
1998	77	71	87	88
1999	79	69	90	90
2000	78	62	94	94
2001	76	59	94	89
2002	75	70	92	92
2003	64	68	92	92
2004	70	72	86	90
2005	83	87	95	95
2006	80	84	87	95

* From the graduation questionnaire of the Jefferson Longitudinal Study asking medical students the extent of graduates' satisfaction with each medical school year on a 4-point scale (4=very satisfied, 3=satisfied, 2=dissatisfied, 1= very dissatisfied). Response rates ranged from 83% to 94%.

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Table 6
Percentage of Seniors' Responses to the Following Question:
"How well do you feel that your education at Jefferson prepared you for a career in medicine?"¹

Academic Year	Scale Points										Mean Score
	1 very poorly	2	3	4	5	6	7	8	9	10 extremely well	
1992	0	0	0	1	3	4	17	36	30	9	8.04
1993	0	0	0	2	3	4	20	36	27	8	7.98
1994	0	0	0	1	2	7	19	40	20	11	7.98
1995	0	1	1	1	15	6	20	44	18	4	7.66
1996	.5	.5	0	3	4	10	25	37	12	8	7.51
1997	.5	1	2	4	8	12	26	35	7	4	7.01
1998	1	1	1	2	5	10	31	30	14	5	7.32
1999	0	0	3	1	5	10	26	36	14	5	7.44
2000	0	.5	1	.5	.5	10	24	35	17	6	7.58
2001	0	.5	4	3	5	12	24	39	10	3	7.18
2002	0	.5	1	2	5	8	28	32	17	5	7.51
2003	0	0	1	4	5	7	29	36	15	3	7.44
2004	0	0	2	4	11	6	21	32	20	4	7.35
2005	0	1	0	1	2	6	17	42	21	10	7.98
2006	0	0	0	1	1	3	19	43	25	9	8.11

¹ From the graduation questionnaire of the Jefferson Longitudinal Study.
Response rates ranged from 83% to 94%.

Table 7
Percentage of Seniors Who were Satisfied or Very Satisfied
With Evaluation Feedback and Student - Faculty Interaction

Graduating Class	Feedback from Evaluations		Student - Faculty Interactions	
	in Basic Science	in Clinical Science	in Basic Science	in Clinical Science
1992	63	76	70	90
1993	68	75	68	89
1994	64	81	73	95
1995	55	73	67	83
1996	66	78	71	87
1997	48	62	45	76
1998	59	62	62	79
1999	65	61	65	84
2000	57	72	56	90
2001	58	65	54	88
2002	64	73	62	87
2003	57	73	55	91
2004	57	59	67	79
2005	79	79	86	85
2006	74	70	78	87

Response rates ranged from 83% to 94%.

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Table 8
Percentage of Seniors Who Were Satisfied or Very Satisfied
With Selected Topics in the Curriculum

Educational Topics	Graduating Class														
	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06
Psychosocial Factors in Health/illness	83	88	93	91	90	83	86	90	88	83	90	83	88	94	93
Cultural Factors in Disease Development	70	63	71	71	73	68	72	68	78	70	71	72	74	88	83
Medical Ethics	74	77	77	82	88	79	79	80	85	81	84	84	80	91	89
Interpersonal Skills Development	84	85	87	82	84	78	83	83	89	83	90	91	85	95	90
Geriatric Medicine	67	69	80	74	83	70	70	70	73	71	77	76	76	90	75
Computer Technology	66	68	57	51	54	68	65	67	65	60	69	70	64	83	79
Economics of Healthcare	49	45	46	43	49	61	67	64	68	69	66	70	55	78	62
Practice Management	34	33	40	30	39	34	52	44	47	57	52	55	42	69	44
Health Promotion/ Disease Prevention	79	75	80	80	90	80	84	87	90	80	84	87	87	96	94
Nutrition Education	44	52	60	67	83	64	68	59	61	59	60	66	73	77	63
HIV/AIDs	84	82	91	73	87	80	81	77	78	81	84	84	88	86	93
Research Methodology/ Statistics	69	62	56	45	69	63	69	68	65	70	63	63	69	80	77
Opportunities for Lifelong Learning¹	-	-	-	-	-	-	-	-	-	-	74	77	84	90	84
Humanistic Aspect of Medicine²	-	-	-	-	-	-	-	-	-	-	-	89	88	96	96

¹ Question included in 2002.

² Question included in 2003.

Response rates ranged from 83% to 94%.

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Table 9
Percentage of Seniors Who Were Satisfied or Very Satisfied
With Aspects of College-Based Services

	Graduating Class														
	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06
College-Based Services															
The Scott Memorial Library	93	97	97	98	98	97	92	93	93	86	83	84	81	90	87
Computer Facilities at the Library	93	97	96	98	96	95	91	89	91	81	86	90	85	91	93
Facilities for Extracurricular Activities (commons, swimming pool, etc.)	96	96	92	93	89	90	80	92	93	84	78	79	73	83	71
Dormitories	80	86	86	90	84	83	82	80	82	87	72	82	48	68	65

Response rates ranged from 83% to 94%.