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Jefferson Medical College Annual Report, 2004

Thomas J. Nasca

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Jefferson Medical College Thomas Jefferson University

Annual Report 2003-2004

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Introduction

The 2003-2004 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

Thomas J. Nasca, MD, FACP
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Senior Vice President
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Presented to the assembly of the General Faculty on October 21, 2004.

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State of the College

The academic year 2004 was a highly productive time for the faculty and students of the Medical College. In nearly all measurable parameters of their efforts, the faculty and students have excelled. In the pages that follow, summaries of their efforts are evident. I will highlight a few key dimensions of the efforts of the faculty during the past year, and point out some of the challenges facing the Medical College in the years 2005 and beyond.

The Undergraduate Medical Educational Programs (UME) continue to excel. The first- year curriculum revisions have been implemented. The efforts of the faculty to integrate material, form more cohesive collaborations across departments to create exciting new educational efforts, and the integration of topics in clinical medicine and professionalism throughout the first year have been met with tremendous success. Movement from a number grade system to Pass, Fail, Honors final grading has been received well, as measured by enhanced student collaboration and team learning, diminished sense of individual competition, and enhanced student satisfaction. Further, since grades on each examination are still provided numerically, we are able to determine that mean scores in each course remain at previous levels, indicating that the shift in grading system has not resulted in an adverse change in examination performance.

The second-year curriculum has been rebalanced with the first year, and clinical problem solving, clinical skills development, and professionalism topics in small groups now interdigitate with an integrated pathophysiology and clinical medicine course (formerly Pathology, Pharmacology, and Introduction to Clinical Medicine courses) called Foundations of Clinical Medicine.

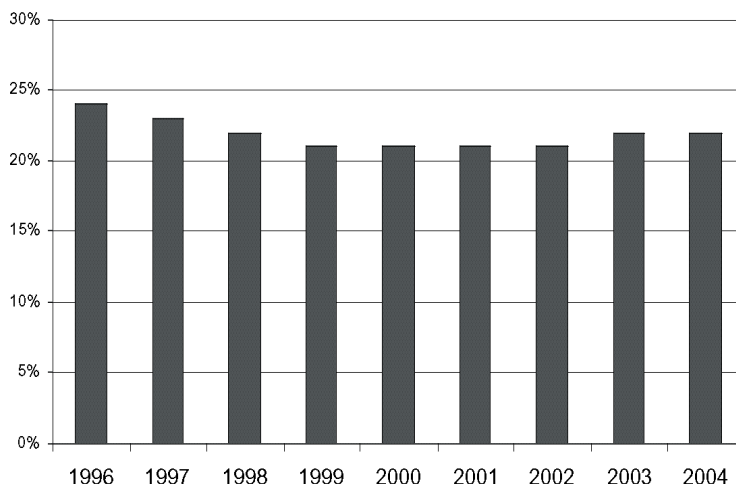
Third-year students now enjoy interclerkship programs covering interdisciplinary topics such as obesity and reduction of medical errors. Tracking of clinical experience, begun at Jefferson more than a decade ago, is now becoming a standard of the Liaison Commission for Medical Education (LCME) for all medical schools.

The fourth-year curriculum has been revised, and new offerings in Advanced Clinical Skills, Emergency Medicine, and Advanced Basic Sciences have been introduced into the curriculum. The Clinical Skills Facility, formerly housed in the previous offices of the Division of General Internal Medicine, has entered new space. Funded entirely by the efforts of the faculty and administration through the Jefferson University Physicians Annual Golf Tournament, this new 17,000-square-foot facility with digital video and computer reporting systems throughout, provides Jefferson medical students with a state-of-the-art learning facility as an interim location until the new Research and Education Building is completed.

In anticipation of the upcoming implementation of the National Boards Step 2 Clinical Skills (Step 2CS) examination (required for all graduating in 2005 and beyond) Jefferson conducted its first “high stakes” Objective Structured Clinical Examination (OSCE) in the Spring of 2004. The students performed extremely well, with very few falling below the standard set for passing by the faculty. All students are now required to pass the Jefferson OSCE as a component of the curriculum.

Applications for admission to Jefferson continue to rise. We are blessed at Jefferson with a legacy of educating outstanding clinicians, and this legacy and reputation results in more than one of every five students apply-

Figure 1. Percentage of US National Applicant Pool Applying to Jefferson



ing to medical school in the United States applying to Jefferson. As can be seen in Figure 1, nearly 23% of the individuals in the United States who applied to allopathic medical schools for entry into the Class of 2008 applied to Jefferson!

The academic preparedness of our students continues to escalate, with mean MCAT scores continuing to rise. MCAT Biologic Science mean score for the entering class in the fall of 2004 is nearly 11, and the mean science grade point average is in excess of 3.5. For the second time in Jefferson's history, there are more women than men in the entering class, and for the first time Jefferson has exceeded the national mean in Underrepresented Minority Students in Medicine (URM) in the class. The heritages of more than 7% of the Class of 2008 are underrepresented in medicine. These students will not only enrich Jefferson and the Class of 2008, they will become important care givers in the multicultural society that is now America.

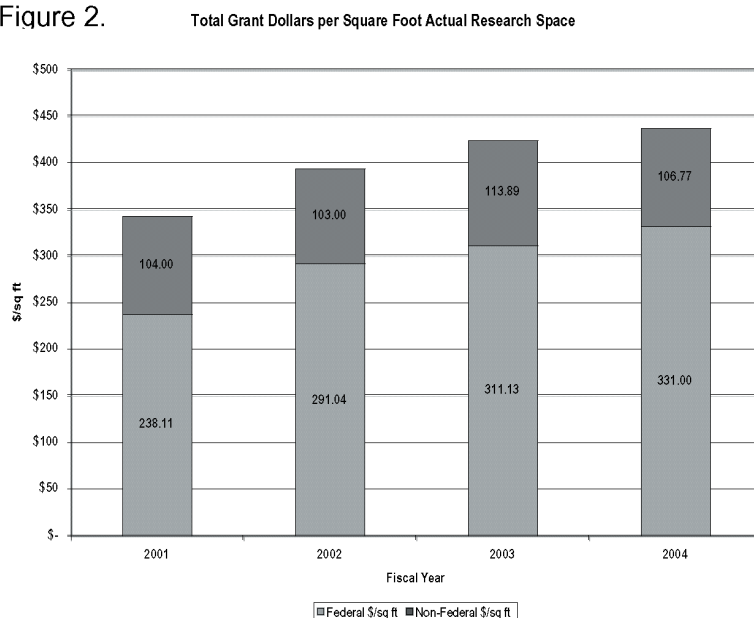
The Graduate Medical Education (GME) programs at Jefferson and Thomas Jefferson University Hospital (TJUH) continue to excel. National Residency Matching Program performance in 2004 was outstanding, and an excellent group of new first year house officers began their training in late June. Transdepartmental educational efforts in Systems Based Practice, Practice Based Learning and Improvement, as well as Professionalism and Teaching have expanded. All programs now have come into compliance with the Accreditation Council for Graduate Medical Education (ACGME) resident duty hours regulations.

Continuing Medical Education (CME) programs continue to receive outstanding evaluations, and the CME programs are participating in the shift from traditional lecture based offerings (still prevalent) to distance and self-directed educational tools. The CME program continues to be a national leader in accreditation, participating in the Consortium of Academic CME programs in the state of Pennsylvania.

Research continues to expand at Jefferson with growth in cancer, cardiovascular, neuroscience, and matrix biology and orthopedic research demonstrating significant increases in the breath and depth of programs over the past year. The number of NIH-funded projects, the number of NIH-sponsored training grants, and the total dollars of funding have increased significantly over

the past three years. These parameters followed these trends in 2004. In Figure 2, the growth in the research enterprise (as measured by dollars) can be clearly seen. Jefferson's ranking in NIH funding remains stable in

Figure 2.



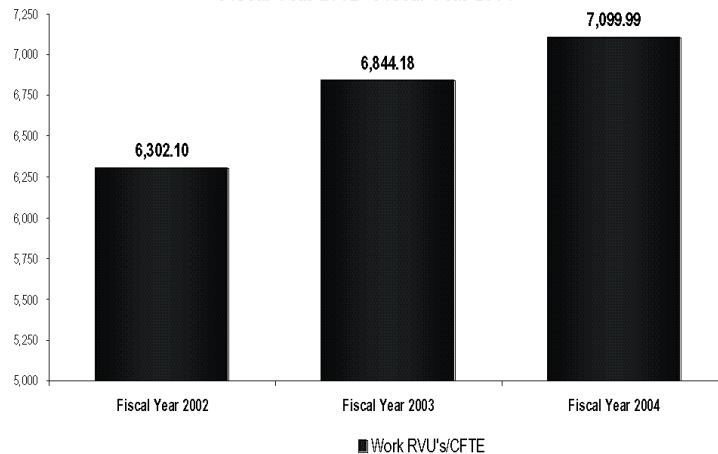
the 45th position, and is not likely to rise significantly until new research space is added, and additional faculty recruited to occupy that space. Research productivity, as measured by dollars per faculty member, or NIH grants per faculty member, continue to rise, indicating continued maturation of research programs and outstanding performance of the research faculty. Jefferson's growth in research will mirror the national average of the top 50% of NIH-funded medical schools over the next few years, largely related to our continued investment in cancer, cardiovascular, neuroscience and matrix biology research programs, with individual successes in other programs.

The clinical productivity of the faculty of Jefferson University Physicians continues to escalate. With a stable number of total faculty and clinical full time equivalent practicing faculty, clinical service provision parameters continue to rise. Whether evaluated by measures of faculty work such as Relative Value Units (RVUs – see Figure 3), numbers of services provided, numbers of individual patients seen, or dollars produced from their efforts, the clinical faculty have dramatically enhanced their productivity. In addition, commitment to Practice Based Learning and Improvement (one of the six ACGME Core Physician Competencies) has resulted on both analysis of quality of services provided, as well as improvement of systems of care which have en-

hanced outcomes. Analysis of the outpatient treatment of hypertension demonstrated that Family Medicine faculty perform at or above the national norms for effective blood pressure control, and the General Internal Medicine faculty exceeded national norms to an even greater degree.

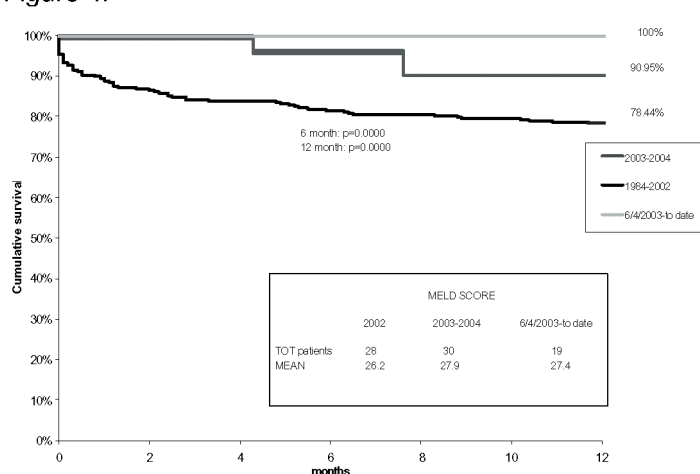
Faculty recruitment and systems analysis and improve-

Figure 3.
Jefferson University Physicians
WORK RVU's per Self Reported Clinical FTE
Fiscal Year 2002 - Fiscal Year 2004



ment in TJUH have resulted in significant enhancements in clinical outcomes. As can be seen from the graphic below, hepatic transplantation (first graft) survival rate is in excess of 95% for the past two years, and 100% for the past year, despite higher measures of severity of illness than in the historical group. In these and many other efforts, the clinical faculty and TJUH administration and staff have demonstrated not only

Figure 4.
PRIMARY LIVER TRANSPLANT
Patient Survival Analyses (Kaplan-Meier at 5/8/2004)



commitment to, but enhancements of, quality outcomes for our patients.

Challenges

In some senses, a number of challenges facing the faculty are the result of their collective success. Continued augmentation of academic parameters in admission to Jefferson must be supplemented by more focused and objective assessment of the core values and professionalism of applicants. Achievement of improvements in recruitment of Underrepresented in Medicine Minority Students must be accompanied by both continued success in recruitment, as well as creation of a culture of openness, diversity, and welcome. Curriculum revision and its attendant successful implementation must now be followed by a continuous evaluation and revision of the curriculum with a goal of excellence, innovation, and national leadership in Undergraduate Medical Education. Enhancement of the culture of Jefferson to the goal of a true Collegial Learning Environment is an imperative. Expectations of an increasingly elite student and resident group for facilities and digital support place pressure on our aging plant and current level of information systems. Research space is limited, so Jefferson's research programs must grow through excellence, not just volume or dollar productivity.

Enhanced collaboration across traditional departmental lines and modification of the culture of departmental fiefdoms will be essential for success in all three of our academic missions.

Jefferson's clinical mission must be more effectively integrated with that of TJUH in order to provide the quality improvement and seamless delivery of outstanding care, with error reduction called for in both our strategic plan, as well as by the Institute of Medicine, in its recent publication, *Crossing the Quality Chasm*. Jefferson's legacy, the education of outstanding clinicians through training at the bedside with outstanding clinicians, demands that we be successful in achieving the goals set in this national mandate.

Finally, we must survive the external factors that are threatening the underlying viability of the academic medical center in Pennsylvania, most especially in Philadelphia. Perhaps the most pernicious of these is related to insurance costs. Medical liability insurance premium costs continue to escalate; more than 14% of all clinical revenue of Jefferson University Physicians goes to support liability insurance premium costs. The impact of this on primary level specialists

(General Internal Medicine, Family Medicine, Pediatrics, Obstetrics and Gynecology, General Surgery, and General Psychiatry) is devastating. For instance, Jefferson's General Internists' medical liability insurance premiums in the year 2000 were less than \$10,000. This past year, the premium was \$36,000 (nearly 30%

The faculty will continue to excel, and the educational, research, and clinical missions will flourish. The legacy given to us demands no less of us all.

of the average General Internists' salary at Jefferson). The medical liability insurance premium is in excess of 100% of the mean faculty salary in General Obstetrics. At Jefferson we accept nearly all insurance programs, and receive approximately \$0.34 per dollar billed. The General Internists must generate (in charges) in excess of \$100,000 of charges merely to pay his or her medical liability insurance premium. The Obstetrician must deliver nearly 100 babies just to pay the medical liability insurance premium. Similar difficulties can be demonstrated for the other primary specialties. As an example in contrast, the University of Texas System rebated 100% of the malpractice premium (approximately \$5,000 per year for General Internal Medicine) to the faculty, largely based on the recent tort reform passed in the state of Texas.

Jefferson's faculty competes not only on a local and regional level, but also on a national stage. They are measured in this competition by research productivity, the reputation of their academic and educational programs, and the reputation for innovation and quality in-patient care delivery. When incremental practice revenue of 10 to 50% is required merely to support the costs of liability insurance, the faculty is diverted from their academic missions of education and research to survival in the clinical mission. The flattening of the NIH budget and the NIH roadmap will demand higher quality interdisciplinary and translational research programs of our faculty. If the clinical faculty is unable to participate to the level demanded for success, all will be damaged by the diversion of these important faculty members from success in all three dimensions of the tripartite mission of education, research and patient care by the fiscal imperatives of survival in Philadelphia. These practice imperatives limit our opportunities to extend and enhance the academic reputation of Jefferson at the national level.

As always, the faculty of Jefferson has responded to these challenges. Challenge is the breeding ground for innovation, excellence, and success. The faculty will continue to excel, and the educational, research, and clinical missions will flourish. The legacy given to us demands no less of us all.

Thomas J. Nasca, MD, FACP

Senior Vice President, Thomas Jefferson University
Dean, Jefferson Medical College
President, Jefferson University Physicians

Faculty Honors

The Christian R. and Mary F. Lindback Award for Distinguished Teaching in a Basic Science.

Carol Beck, PhD, Assistant Dean of Jefferson College of Graduate Studies and Assistant Professor of Biochemistry & Molecular Pharmacology

Dean's Award for Distinguished Teaching in a Basic Science.

Peter Ronner, PhD, Associate Professor of Biochemistry & Molecular Pharmacology

Blockley-Osler/Dean's Teaching Award for Excellence in Teaching of Clinical Science. To a faculty member of a Jefferson-affiliated hospital.

Robert P. Good, MD, Clinical Assistant Professor of Orthopaedic Surgery

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

Gerard F. Klinzing, MD, Director, Bryn Mawr Family Practice Residency Program

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.

William G. McNett, MD, Instructor of Pediatrics and Director of the Pediatric Inpatient Unit

Portrait

William Buchheit, MD, Professor of Neurosurgery and Chair for the Department of Neurosurgery, presented by the Class of 2004 and friends and colleagues, painted by Dean Larson.

Medical College

The Medical College celebrated its 180th anniversary.

New Centers

Jefferson Fibroid Center

New Divisions, Departments

Division of Geriatric Medicine

Department of Health Policy

Division of Liver Transplantation & HepatoBiliary Surgery

New Appointments

Department Chairs

Herbert E. Cohn, MD, Chair for the Department of Surgery

Samuel Gandy, MD, PhD, Farber Institute for Neurosciences

Robert H. Rosenwasser, MD, Chair for the Department of Neurosurgery

Louis Weinstein, MD, Chair for the Department of Obstetrics & Gynecology

Division Directors

Neil Flomenberg, MD, Director of the Division of Medical Oncology & Hematology

Richard C. Wender, MD, Director of the Division of Geriatric Medicine

Commencement

The 180th Commencement Exercises were held on June 4 in the Kimmell Performing Arts Center. Doctor of Medicine degrees were awarded to 230 candidates, two of whom were simultaneously awarded a Doctor of Philosophy degree.

Honorary Degree

An honorary degree of Doctor of Letters was bestowed upon David Colvin Leach, MD, the executive director of the Accreditation Council for Graduate Medical Education (ACGME).

Administrative Staff 2003 - 2004

| | |
|---------------------------|---|
| Thomas J. Nasca, MD, FACP | Dean, Senior Vice President |
| Gerard T. Berry, MD | Vice Dean, Research and Science Advisor to the Dean |
| Clara A. Callahan, MD | Vice Dean, Academic Affairs, The Lillian H. Brent Dean of Students |
| Joseph L. Seltzer, MD | Vice Dean, Clinical and Alumni Affairs; Chief Quality Officer |
| Timothy P. Brigham, PhD | Chief of Staff and Associate Dean, Organizational Development |
| James F. Burke, MD | Assistant Dean, Medical Education, Main Line Health |
| Edward B. Christian, PhD | Associate Dean, Diversity and Minority Affairs |
| Kristen L. DeSimone, MD | Assistant Dean, Student Affairs and Career Counseling |
| Glenn Eiger, MD | Assistant Dean, Medical Education, Albert Einstein Medical Center |
| Linda Famiglio, MD | Assistant Dean, Medical Education, Geisinger Medical Center |
| Irv Freeman, PhD | Assistant Dean, Medical Education, Mercy Hospital of Pittsburgh |
| Karen M. Glaser, PhD | Associate Dean, Undergraduate Medical Education |
| Joseph S. Gonnella, MD | Director, Center for Research in Medical Education and Healthcare |
| Steven K. Herrine, MD | Assistant Dean, Undergraduate Medical Education |
| George F. Kalf, PhD | Associate Dean, Scientific Affairs |
| Brian W. Little, MD | Assistant Dean, Christiana Care |
| Bernard L. Lopez, MD | Assistant Dean, Student Affairs and Career Counseling |
| Phillip J. Marone, MD | Associate Dean, Alumni Relations, Executive Director of the Alumni Association |
| Geno J. Merli, MD | Senior Associate Dean, Continuing Medical Education |
| John A. Monnier, MBA, CPA | Senior Associate Dean, Research Administration and Human and Physical Resources |
| Karen D. Novielli, MD | Associate Dean, Faculty Affairs and Faculty Development |
| John Ogunkeye, MS | Executive Director, Jefferson University Physicians, Assistant to the Dean for Budget Development & Resource Analysis |
| Luz Ortiz, MA | Assistant Dean, Diversity and Minority Affairs |
| David L. Paskin, MD | Senior Associate Dean, Graduate Medical Education and Affiliations |
| Charles A. Pohl, MD | Associate Dean, Student Affairs and Career Counseling |
| Roy Proujansky, MD | Associate Dean, Chief Executive of the Practice, Nemours Children's Clinic-Wilmington/A.I. duPont Hospital for Children |
| Susan L. Rattner, MD | Senior Associate Dean, Undergraduate Medical Education |
| Cynthia G. Silber, MD | Associate Dean, Graduate Medical Education |

Department Chairs 2003 - 2004

| | |
|---|-----------------------------|
| Anesthesiology | Zvi Grunwald, MD |
| Biochemistry and Molecular Pharmacology | Matthias Schnell, PhD |
| Dermatology and Cutaneous Biology | Jouni J. Uitto, MD, PhD |
| Emergency Medicine | Theodore A. Christopher, MD |
| Farber Institute | Samuel Gandy, MD, PhD |
| Family Medicine | Richard C. Wender, MD |
| Health Policy | David B. Nash, MD, MBA |
| Medicine | Arthur M. Feldman, MD, PhD |
| Microbiology and Immunology | Renato Baserga, MD |
| Neurology | Abdolmohamad Rostami, MD |
| Neurosurgery | Robert H. Rossenwasser, MD |
| Obstetrics and Gynecology | Louis Weinstein, MD |
| Ophthalmology | William S. Tasman, MD |
| Orthopaedic Surgery | Richard H. Rothman, MD, PhD |
| Otolaryngology/Head and Neck Surgery | William M. Keane, MD |
| Pathology, Anatomy, and Cell Biology | Fred Gorstein, MD |
| Pediatrics | Roy Proujansky, MD |
| Physiology | Marion J. Siegman, PhD |
| Psychiatry and Human Behavior | Michael J. Vergare, MD |
| Radiation Oncology | Walter J. Curran, MD |
| Radiology | Vijay M. Rao, MD |
| Rehabilitation Medicine | John L. Melvin, MD |
| Surgery | Herbert Cohn, MD (Interim) |
| Urology | Leonard G. Gomella, MD |

Professorial Faculty 2003 - 2004

The Advisory Committee Officers

| | |
|-----------------|---------------------|
| Chairman | Howard Weitz, MD |
| Chairman-Elect | Fred Laucius, MD |
| Secretary | Sue Menko, PhD |
| Secretary-Elect | John Spandorfer, MD |

Advisory Committee Members

| | |
|-------------|---|
| 2002 - 2004 | James Newman, MD Elisabeth Van Bockstaele, PhD Richard Wender, MD Edward Winter, PhD |
| 2003 - 2005 | David Abraham, PhD Gary Brown, MD David Karasick, MD James Plumb, MD Jay Schneider, PhD |

Jan Hoek, PhD, Past Chairman Advisory Committee 2002-2003

Representative to the Executive Council

| | | |
|------------------|------------------------|-------------|
| Basic Science | Marilyn Woolkalis, PhD | 2002 - 2004 |
| Clinical Science | Gregory Kane, MD | 2003 - 2005 |

Representatives to the Committee on Committees

| | | |
|------------------|----------------------|-------------|
| Basic Science | Gerald Grunwald, PhD | 2002 - 2004 |
| Clinical Science | Howard Field, MD | 2003 - 2005 |

Office of Faculty Affairs

The Office of Faculty Affairs was established in 2001 by Dean Nasca to support faculty efforts in advancing the educational and research missions of the Medical College.

Mission

The mission of the Office of Faculty Affairs is to: 1) support faculty skill development and career advancement 2) facilitate communication and collegiality among the faculty and 3) support administrative activities and programs central to faculty involvement in the operations and governance of Jefferson Medical College. Activities of the Office of Faculty Affairs include a New Faculty Orientation Program, Faculty Exit Interviews, a Faculty Development Program and Faculty Career Counseling. A summary of major activities of the Office of Faculty Affairs for the 2003-2004 academic year follows.

New Faculty Orientation Program

A formal full-day orientation program was held in September and again in March to introduce new faculty to Jefferson Medical College, its missions and programs and important resources available to faculty. A total of 34 new faculty attended these sessions. In addition, each new faculty member was invited to meet individually with the Associate Dean for Faculty Affairs. During their individual session, new faculty received an overview of the role of faculty in the daily operations of Jefferson Medical College, important policies relative to faculty, and an understanding of the criteria for academic advancement in the individual's appointed promotion track. Individual orientation sessions were held for 66 new Jefferson faculty.

Faculty Exit Interview

An Exit Interview process for resigning faculty has been established to further faculty recruitment and retention efforts. Resigning faculty are interviewed by the Associate Dean for Faculty Affairs. Though individual interviews are confidential, the goal of the process is to elucidate common reasons that faculty leave and, where appropriate, institute policy changes to enhance faculty retention. This process began in July 2003; 41 faculty members have been interviewed to date.

Faculty Ombudsperson

Dr. Stephen Weinstein, Professor of Psychiatry, was appointed as the University Faculty Ombudsperson in September 2003. The primary responsibilities of the ombudsperson are to serve as a neutral third party who can assist faculty in the satisfactory resolution of problems and conflicts that arise in the course of professional life and to assist the administration in identifying systemic problems that negatively impact the quality of work life for faculty. Approximately 10 faculty contacted the ombudsperson for assistance during the 2003-2004 year.

Faculty Mentoring Program

A formal full-day orientation program was held in September and again in March to introduce new faculty to Jefferson Medical College, its missions and programs and important resources available to faculty.

Mentoring is considered critical to the career advancement of medical school faculty. A proposal for a mentoring program at Jefferson has been developed and has received the input of several faculty advisory groups including the Professorial Faculty Advisory Group and the Career Development Advisory Group. Feedback from these groups suggests that a "one size fits all" mentoring program will not meet the needs of all faculty. An important goal for the 2004-2005 academic year is to further dialogue with Faculty and Chairs and to refine a plan for mentoring that combines flexibility at the departmental or individual level with central administrative support.

Faculty Annual Performance Review

The Office of Faculty Affairs continued its efforts to support the annual performance review process for faculty. The goal is to provide every faculty member with an annual review that includes 1) feedback on goal-oriented performance 2) assistance with the development of goals for the ensuing academic year and 3) advice that enhances career advancement and promotion. The Office of Faculty Affairs sponsored a session related to the

annual performance review of faculty for Department Chairs as part of the Chairs' Leadership Program. Dr. Stephen Bogdewic from Indiana University School of Medicine led the session on feedback and negotiation. The Office of Faculty Affairs tracks the number of departments who provide and faculty who receive annual performance reviews. For the 2003-2004 academic year, 16 departments conducted annual performance reviews for 368 faculty.

Faculty Development

The Faculty Development program was organized into six general areas of competence: instructional technology, information management, improving pedagogical skills, improving the teaching of clinical skills, research skill development and professional development. Sixty-two faculty development sessions (Table 1), representing 112 hours of professional development, were provided during 2003-2004. Two hundred and fifty six (256) members of the full-time faculty participated in these faculty development programs. In total, the faculty obtained more than 800 credit hours in faculty development, and 23 faculty members recorded more than five hours of faculty development attendance. The majority of faculty development programs were provided through the generous commitment of talented Jefferson faculty and staff. Invited speakers included: Dr. Kurt Albertine, University of Utah School of Medicine, who spoke on the Art of Lecturing to Medical Students and Ms. Janet Bickel, formerly of the AAMC and presently faculty career consultant, who discussed professional development strategies for faculty at various levels of career development. An important addition to improve faculty access to faculty development opportunities was the development of Web-based Self-directed Learning Modules. AISR staff assisted in transforming five of the Effective Teaching learning sessions into Self-directed Learning Modules that Jefferson faculty can access on the Faculty Development Web site from any computer.

Communication

The Office of Faculty Affairs assisted the Professorial Faculty Advisory Committee in hosting the first "Town Meeting," a forum for open communication between faculty and Dean Nasca. Dr. Howard Weitz, Chair of the Professorial Faculty Advisory Committee, presented Dean Nasca with challenging and insightful questions generated by the faculty. The session was well attended.

The faculty email listserve continued to serve as an

important means of disseminating information to faculty. The faculty Web site was developed and includes information about the Office of Faculty Affairs, Faculty Development Programs, the New Faculty Orientation Program, Faculty Evaluations, and the Faculty Ombudsperson. The Web site also provides access to the *Faculty Handbook* and *JMC Bylaws*. The *Faculty Handbook* is being updated, and both the Handbook and Bylaws are being converted to browsable PDF documents on the Web through the able efforts of Ms. Dorissa Bolinski. Present efforts also include further development of the Faculty Pulse site. Lastly, a survey regarding the desirability of a Faculty Newsletter was administered to the full-time faculty. Nine percent of the faculty replied that they would find a newsletter useful.

Committee Support

Sixty-two faculty development sessions, representing 112 hours of professional development, were provided during 2003-2004. Two hundred and fifty six (256) members of the full-time faculty participated in these faculty development programs.

The Office of Faculty Affairs provides staff support for many Medical College committees of importance to faculty including the Professorial Faculty and its Advisory Committee, the Faculty Affairs Committee, the Bylaws Committee, and the Committee on Committees. Additionally, the Committee on Departmental Review will receive support from the Office of Faculty Affairs as it renews efforts and reviews methods for providing periodic, peer reviewed assessments of departments to the Dean.

The Professorial Faculty Advisory Committee serves as the faculty "voice" in the affairs of the college. The committee, chaired by Dr. Howard Weitz, met five times in Academic Year 2003-2004. The committee's primary agenda items for the year included improving opportunities for faculty communication with administration, addressing issues of faculty job security, and enhancing the effectiveness of the committee by improving leadership continuity. These items were addressed through the following actions: 1) As discussed above, a "Town Meeting" was organized and held in February 2004. Additional plans include a meeting for junior faculty

with Dr. Nasca planned for September 2004 and continuation of the annual “Town Meeting” format. 2) A special committee on tenure and long-term contracts was established by Dean Nasca to review issues related to the job security of Jefferson faculty. 3) The Chair, Past-Chair and Chair-Elect of the Professorial Faculty Advisory Committee will work to enhance continuity of leadership of the Committee. In addition, the Professorial Faculty Advisory Committee set the agenda for the three meetings of the General and Professorial Faculty of Academic Year 2003-2004. Agenda items included discussion of the following: TJU Presidential Search, the Internet II project, the Jefferson Honor Code and the Office of Technology Transfer.

There were no hearings of the Faculty Affairs Committee and no formal faculty grievances filed. One request for sabbatical leave was considered.

Advisory Committees to the Office of Faculty Affairs

Faculty input and guidance into the activities of the Office of Faculty Affairs is essential if the Office is to effectively meet the needs of the faculty. To help achieve this important goal, two advisory committees, the Educational Development Advisory Committee and the Clinical Research Advisory Committee, are active. The Educational Development Advisory Committee, chaired by Dr. Howard Weitz, met four times during the year. This committee reviewed the progress of the faculty development program for 2003-2004 and made suggestions for faculty development programs for 2004-2005. This committee also sponsored and reviewed two new faculty awards, which are discussed in the next section.

Faculty Awards

Two new faculty awards were introduced this year: the Dean’s Citation for the Advancement of Education and the Dean’s Citation for Faculty Mentoring. These awards recognize faculty for significant and sustained contributions to the educational process and for the mentoring of junior faculty. Faculty were nominated by their Department Chairs and, for the mentoring award, by a junior faculty mentee. Nominations were then reviewed by faculty peers through the Educational Development Advisory Committee who determined the final list of awardees. Dr. Nasca hosted a reception for awardees at the Union League in May 2004. The Educational Development Advisory Committee will consider further refinement of the criteria for the award during the upcoming year. See Table 2 for the list of award recipients.

The Office of Faculty Affairs would like to thank: the Jefferson faculty, Academic Information Services and Research staff, Scott Memorial Library staff, Office of Research Administration staff and Office of Scientific Affairs staff. They are the backbone of the Faculty Development program through the generous gift of their time and talents.

Karen D. Novielli, MD

Associate Dean for Faculty Affairs

Blanche Ramsey-Riggs

Administrative Assistant, Faculty Affairs

Table I
Faculty Development Sessions for 2003-2004

| | |
|---|--|
| <p>Instructional Technology</p> <ul style="list-style-type: none"> • Introduction to Academic and Research Information • Systems at Jefferson • Instructional Design Concepts • Pulse: Preparing and Loading Content for your Course • Pulse: Evaluations, Self-Assessment and Testing Functions • Using the Web for Case-Based Instruction • Technology in the Classroom • Audio-Visual Classroom Support at Jefferson • Jefferson's Audience Response System • The Simulation Center at Jefferson • Microsoft Word Advanced Skills • Microsoft Excel and Spreadsheet Basics • Personal Digital Assistant Basics • PowerPoint 1: Getting Started • PowerPoint 2: Working Efficiently with PowerPoint and other MS products • PowerPoint 3: Digital Image Processing for Presentations • PowerPoint 4: Formatting Graphics and Slides in PowerPoint • PowerPoint 5: Animating your PowerPoint Presentation • PowerPoint 6: PowerPoint Pizzazz | <p>Information Management</p> <ul style="list-style-type: none"> • Basics of Library Use • Searching PubMed • Introduction to Ovid Medline • Advanced Ovid Medline • Databases for Basic Research: Beyond Medline • Databases for Clinical Care: Beyond Medline • Evidence Based Medicine Resources • Tracking the Cutting Edge of Science • Creating your own Current Awareness Plan • Identifying Funding Sources • Creating a Meaningful Funding Alert System • Using Bibliographic Software: Reference Manager • Using Bibliographic Software: End Note |
| <p>Effective Teaching</p> <ul style="list-style-type: none"> • Adult Learning Theory in Medical Education • Audiovisual Aids in Teaching • Writing Educational Objectives • Small Group Teaching • Large Group Presentations • Using Videotape to Improve your Presentations • Bedside Teaching • Evaluating your Teaching • Documenting Poor Performance | <p>Teaching Clinical Skills</p> <ul style="list-style-type: none"> • Tips for Teaching the Knee Examination • Tips for Teaching the Shoulder Examination • Tips for Teaching the Hand/Wrist/Elbow Examination • Harvey and the Cardiovascular Examination, Part 1 • Harvey and the Cardiovascular Examination, Part 2 • Teaching with Standardized Patients |
| | <p>Building Research Skills</p> <ul style="list-style-type: none"> • Working with Foundations to Secure Research Funding • The Clinical Trial Proposal Process • The IRB and You: Preparing for a Successful Submission • Terms and Conditions of Research Contracts • Post-Award Investigator Responsibilities • Refining your Research Question • Grant Writing Seminar (12 sessions) <p>Professional Development</p> <ul style="list-style-type: none"> • Demystifying the Promotions Process • Developing your Professional Network • The Mentoring Relationship: Junior Faculty • Effective Mentoring: Senior Faculty • Career Transitions for Senior Faculty • The Annual Performance Review: Goal Setting and Feedback |

Table 2
Faculty Award Recipients

Dean's Citation for Significant Contributions to the Advancement of Education at Jefferson Medical College

Carol L. Beck, PhD (Biochemistry/Molecular Pharmacology)
Paul Francis Kolecki, MD (Emergency Medicine)
Kenneth J. Neuburger, MD (Emergency Medicine)
Christine Jerpbak, MD (Family Medicine)
Michael P. Rosenthal, MD (Family Medicine)
Salvatore Mangione, MD (Medicine)
John M. Spandorfer, MD (Medicine)
Serge A. Jabbour, MD (Medicine)
Gregory C. Kane, MD (Medicine)
John W. Caruso, MD (Medicine)
Geno J. Merli, MD (Medicine)
Katherine Worzala, MD (Medicine)
Dale D. Berg, MD (Medicine)
Jay Herman, MD (Medicine)
Joseph A. DeSimone, Jr., MD (Medicine)
Matthew DeCaro, MD (Medicine)
David Abraham, PhD (Microbiology/Immunology)
Joyce D. Liporace, MD (Neurology)
Thomas A. Klein, MD (Obstetrics/Gynecology)
William E. Benson, MD (Ophthalmology)
Ralph C. Eagle, Jr., MD (Ophthalmology)
John Raymond Shea, PhD (Pathology/Anatomy/Cell Biology)
William D. Kocher, MD (Pathology/Anatomy/Cell Biology)
J. Lindsey Lane, MD (Pediatrics)
Thomas M. Butler, PhD (Physiology)
Salman Akhtar, MD (Psychiatry)
Henri Parens, MD (Psychiatry)
Michael Saulino, MD (Rehabilitation Medicine)
Philip J. Wolfson, MD (Surgery)
John C. Kairys, MD (Surgery)
Kris R. Kaulback, MD (Surgery)
Gerald A. Isenberg, MD (Surgery)

Dean's Citation for Faculty Mentoring

J. Jon Veloski, MS (Psychiatry)
Elliott L. Mancall, MD (Neurology)
Howard K. Rabinowitz, MD (Family Medicine)
Christine A. Arenson, MD (Family Medicine)
Xin-Liang Ma, MD, PhD (Emergency Medicine)
Ethan J. Halpern, MD (Radiology)
Scott A. Waldman, MD, PhD (Medicine)
Jorge E. Tolosa, MD (Obstetrics/Gynecology)

Faculty Census

| | Fully Salaried | Partly Salaried | Non-Salaried | Total |
|----------------------|----------------|-----------------|--------------|-------------|
| Professorial | 316 | 15 | 696 | 1027 |
| General | 393 | 30 | 1749 | 2172 |
| Total | 709 | 45 | 2445 | 3199 |
| Administration | 30 | 1 | 0 | 31 |
| Basic Science | 160 | 7 | 121 | 288 |
| Clinical Science | 549 | 38 | 2324 | 2911 |
| Total | 739 | 46 | 2445 | 3230 |
| Professors | 166 | 14 | 369 | 549 |
| Associate Professors | 150 | 1 | 327 | 478 |
| Assistant Professors | 274 | 19 | 898 | 1191 |
| Instructors | 119 | 11 | 851 | 981 |
| Total | 709 | 45 | 2445 | 3199 |
| Women | 193 | 23 | 468 | 684 |
| Men | 516 | 22 | 1977 | 2515 |
| Total | 709 | 45 | 2445 | 3199 |

| | | | |
|----------|----------|----------------|--------------------|
| Emeritii | Honorary | Academic Leave | Medical Disability |
| 78 | 498 | 0 | 0 |

| | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 |
|--------------|-------------|-------------|-------------|-------------|-------------|---------|-------------|
| Professorial | 989 | 968 | 1012 | 1014 | 1009 | | 1027 |
| General | 2236 | 2211 | 2244 | 2148 | 2141 | | 2172 |
| Total | 3225 | 3179 | 3256 | 3162 | 3150 | | 3199 |

September 14, 2004

Office of Admissions

The Office of Admissions supports the efforts of the Committee on Admissions, a group of 34 faculty and three students. The Committee interviewed 854 applicants this year, for which the student members organized and presented an informational program and conducted tours of the campus (in addition to preparing written evaluations of each applicant) prior to the faculty interviews.

Nationally, the increase in the number of applicants to the 125 medical schools continued for the second consecutive year. This year's national applicant pool is approximately three percent larger than last year's. Jefferson received 7,617 applications (a 1.5 % increase compared to 7,499 last year) from the total of 35,581 national applicants to medical school. More than 20 percent of all applicants to medical schools in the U.S. apply to Jefferson.

Cooperative Programs

The Physician Shortage Area Program (PSAP), the oldest program of its kind in the country, continues to recruit applicants who agree to pursue a career in Family Medicine and to practice in a medically underserved area. For the entering class of 2004 we interviewed 22 PSAP applicants, accepted six, and anticipate four PSAP students will matriculate into the incoming class.

The Penn State Accelerated Program continues to attract significant interest. This year the program received more than 300 applications from applicants across the country; 101 were selected to interview in February. The entering class of 2004 will matriculate 23 students from this program who spent two or three years at the main Penn State campus. Although remaining at the Penn State Main campus an additional year was always possible, a Seven Year Program is now formally offered as an option to all candidates.

Post-baccalaureate agreements with Columbia University, the University of Pennsylvania, and Bryn Mawr College continue to attract highly qualified applicants with diverse backgrounds who have chosen to change careers. The office anticipates approximately six matriculants this year including a statistician, a venture capitalist, a research technician, a psychologist and a former hotel administrator.

In conjunction with Jefferson's commitment to the medical education of Delaware residents, of the 56 applicants from the state of Delaware, 42 were interviewed and 29 offers of acceptance were made.

The Medical Scholars Program with the University of Delaware, now in its eleventh year, will matriculate five students into the 2004 entering class.

For the entering class of 2004 Jefferson Medical College and the Jefferson College of Graduate Studies interviewed 49 students from an applicant pool of 163 and made nine offers of acceptance to our fully funded MD/PhD Program. This fully funded with stipend program will matriculate five students. Candidates were selected from a highly competitive pool of applicants on the basis of superior academic credentials, research exposure, and a demonstrated interest in careers in academic medicine and research.

Class of 2007

The current first-year class matriculated 229 students who, again, reflect the diversity seen in the Jefferson Medical College applicant pool. They come from 92 different colleges and universities, 26 different states, Canada, the United Kingdom, and Nigeria. Fifty one percent of the class is female, four percent are minorities and 26 percent are from nonwhite ethnic groups. Their ages range from 19 to 35 years old.

Recruitment Efforts

Attracting outstanding students continues to be the major thrust of the Office of Admissions. The Office hosted its annual recruitment social on April 1, 2004. It was attended by 92 accepted applicants, 13 members of the Committee on Admissions, Dean Nasca and members of his staff, alumni and Jefferson students. On April 2, 2004, the "second look" program continued with informal sessions on student life at JMC. The morning's agenda included a welcome orientation by Clara Calahan, MD and Grace Hershman, MEd; an overview of the curriculum and student support services by Charles Pohl, MD and a tour of the Clinical Skills Center with Drs. Berg, Mangione and Worzola providing small group teaching sessions. James Plumb, MD concluded the morning agenda with a JeffHOPE presentation. Lunch was served in Eakins lounge and attended by members of the basic science faculty, clinical faculty and Jefferson students. Throughout the afternoon applicants were given tours of our clinical facilities, which included the Departments of Surgery and Emergency Medicine hosted by Pauline Park, MD, Kris Kaulback, MD, Raffi Terzian MD and Sharon Griswold, MD; the Department of Orthopedics conducted by Javid Pervizzi, MD and Sidney Jacoby, MD. James Studdiford, MD, Department of Family Medicine and Steven Selbst, Pediatrics, conducted small group case studies.

Susan Batchelor, Director of Financial Aid, provided financial aid guidance and awards to the audience. The day ended with an invitation to participate in Thomas Jefferson University Spring Fling.

We continue to encourage applications from students studying in this country with student visas who plan to return to their “home” countries to practice medicine. Seventeen students representing 10 foreign countries, Brazil, Canada, Ghana, Kenya, Lithuania, Malaysia, Moldova, Nepal, Nigeria, and the United Kingdom, are currently here on student visas. A number of other foreign students have indicated a desire to attend Jefferson, but have been unable to because of financial limitations. 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 of minority students is actively being pursued, but remains a challenge in spite of the concerted efforts of students, faculty and alumni. Under the leadership of Edward Christian, PhD, Associate Dean, the Office of Diversity and Minority Affairs has been actively involved in the support and recruitment of minority applicants to JMC. Despite the alarmingly low number of minority students in the 2004 national applicant pool, the number of minority applications to Jefferson increased almost 50% from 310 last year to 470 this year. We invited 122 minority candidates to interview. Eighty-one interviewed, 58 were offered acceptance and, to date, 16 are expected to matriculate.

During the 2003-2004 calendar year the vice dean and director participated at Health Professions Fairs and served as invited panelists at numerous undergraduate institutions including: Allegheny College, Bucknell, Columbia University, New York University, University of Pennsylvania, Bryn Mawr College, Princeton University, Philadelphia College, Howard University, Villanova University, University of Delaware and Yale.

The Director of Admissions enlisted Alan Hillebrand, MD, Yale Med '90 Professor of Orthopedic Surgery at TJUH and Alicia Rapson Yale '03 JMC '07 and Nicole Castonquay Yale '01 JMC '05 to contribute their input to the “Jefferson” focused article which was spotlighted in the *Yale Health Professions Newsletter*, May 14, 2004. Comments included: “One of the oldest medical schools in the country, Jefferson has produced literally thousands of MDs, many of whom have become leaders in the profession. Yale’s graduates, especially those in the mid-Atlantic region of the United States, know about Jefferson’s exceptional reputation in the medical community and routinely matriculate there.” Opportunities such as this arise as part of the ongoing collaboration between the pre-health professions advisors and the JMC admissions office.

On October 4, 2003, the Vice Dean, Director and two JMC students, Eric Churchill and Emily Harris '05, enrolled in the joint MD/MPH at Johns Hopkins, participated in the Alpha Epsilon Delta Health Professions Conference. The Conference attracted more than 250 undergraduate students, 21 pre-health advisors, and participation by the Deans and Directors of Admissions from the area medical schools: Jefferson, Temple, MCP-Hahnemann, PCOM, New Jersey Medical School, Penn State College of Medicine, University of Pennsylvania and UMDNJ-Robert Wood Johnson.

The Office of Admissions continued its involvement in the Philadelphia Local Advisors Network (LAN) attending this year's meeting on January 8, 2004 at Hershey Medical Center as invited panelist. The 2004 Spring Meeting of the Northeast Group on Student Affairs was chaired by Clara Callahan, MD, and hosted at the University of Rochester Medical School on April 22 through 25, 2004. 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. We maintain our involvement and relationship in the Northeast Consortium on Medical Education (NECOME), a group of premedical advisors and admissions officers from eight undergraduate institutions and eight medical schools. The 2003-2004 academic year meetings convened at the University of Connecticut and Middlebury College.

The admissions process at Jefferson continues to be highly regarded by both health professions advisors and applicants, according to questionnaires returned by applicants, and from the personal comments offered by health-profession advisors who have visited Jefferson. The 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. 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 both their visit to Jefferson and the friendliness of the students and faculty. This is one reason Jefferson continues to receive such a large number of applications.

Clara A. Callahan, MD

Vice Dean for Academic Affairs and Chair, Committee on Admissions, the Lillian H. Brent Dean for Students

Grace M. Hershman, MEd

Director of Admissions

Table 1
Profile of 2004 Applicants' Science GPA

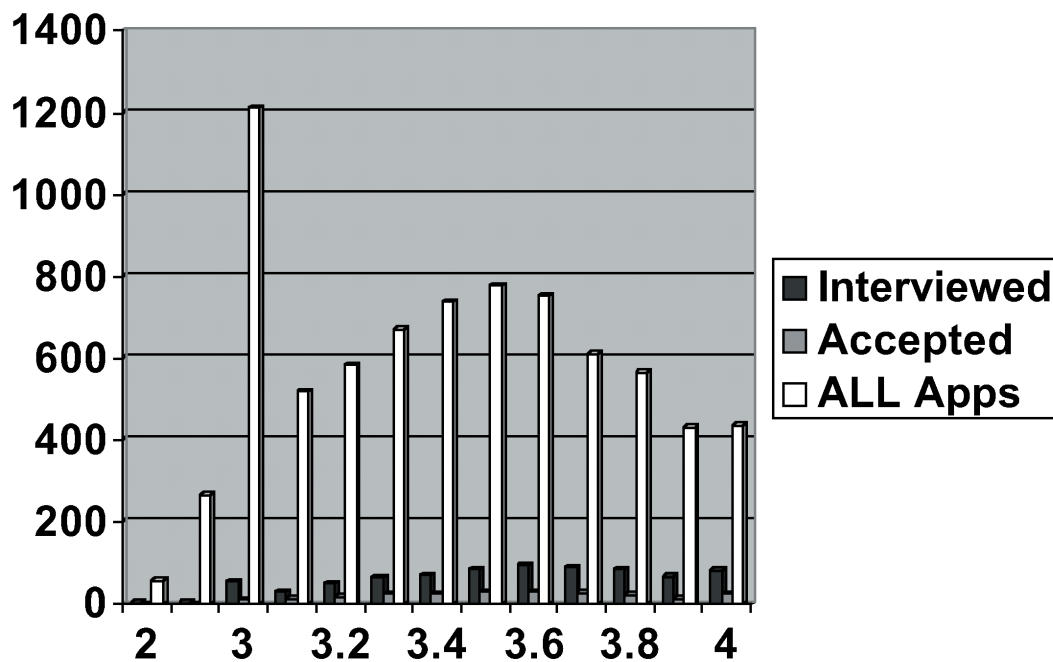


Table 2
Profile of 2004 Matriculating Class Science GPA

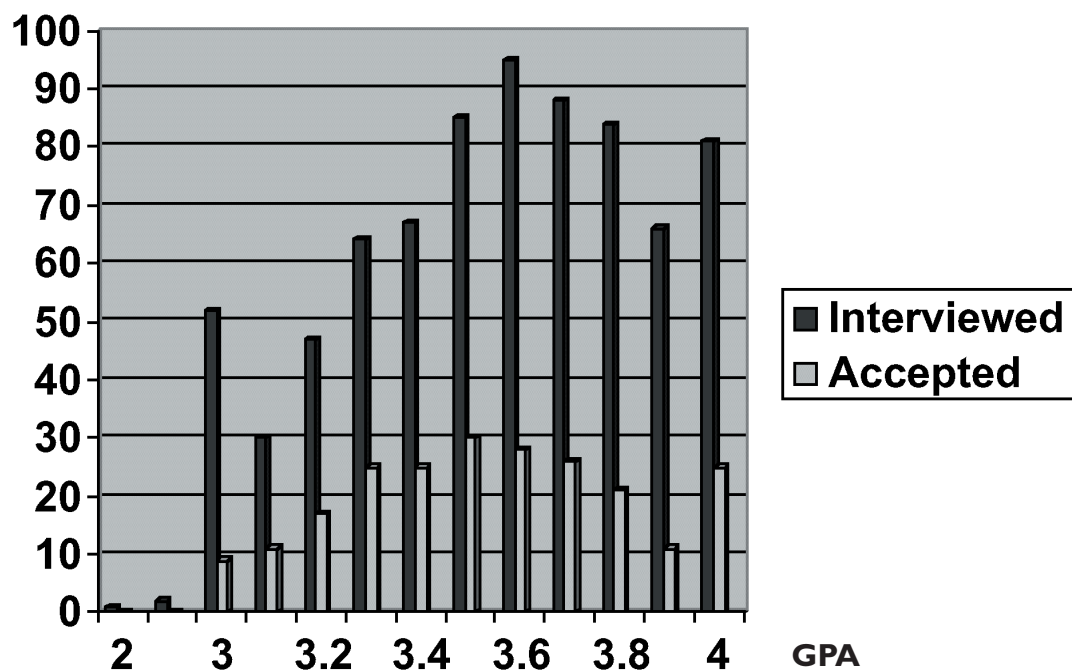


Table 3
Profile of 2004 Applicants' MCAT Scores

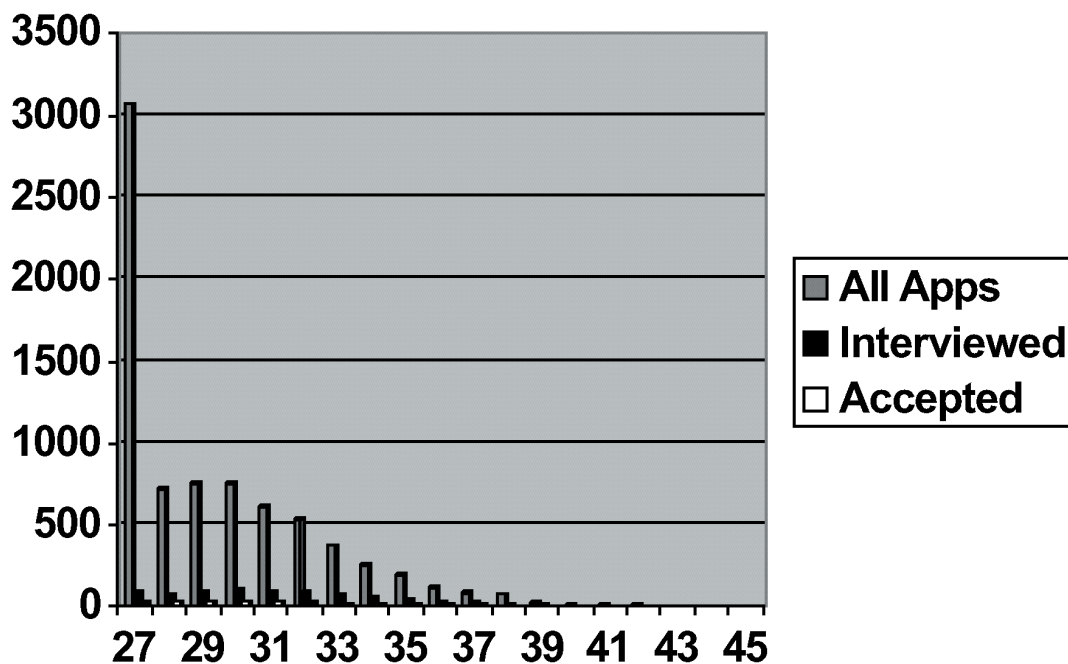
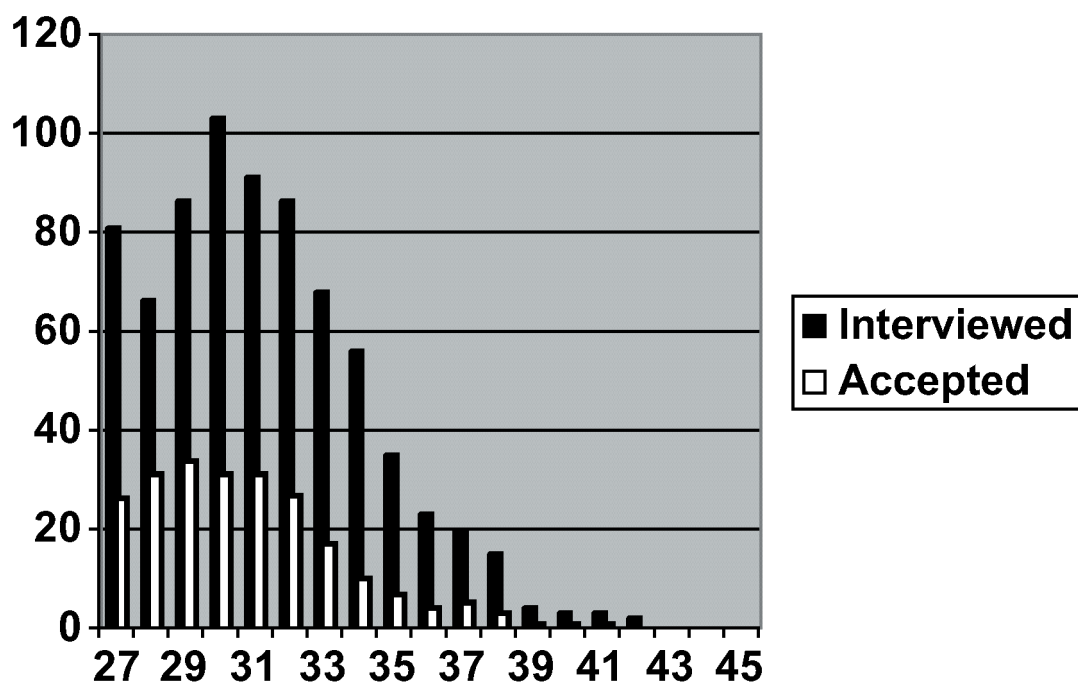


Table 4
Profile of 2004 Applicants' MCAT Scores



Office for Student Affairs & 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/career/>) serves as a vehicle to enhance this mission.

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. During its first year, four editions of the *JMC Student Bulletin* were published to foster communication between students, faculty, and administration of JMC.

Medical Student Orientations

Freshman Orientation

The Freshman 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 also were 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 this year. The Freshman Assistance Committee, a group of some 20 sophomore students, was instrumental in welcoming the new students during orientation and helping them get comfortable with their new roles as medical students. The Big Sib Program, which pairs first-year students with upperclassmen, was restructured in order to improve peer mentorship and 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 officiated by Dr. Thomas Nasca, incorporated the White Coat Ceremony and the Shared Code of Professional Values. Dr. Studdiford, the honorary speaker for the White Coat Ceremony, spoke on the importance of

professionalism in the practice of medicine and the changing faces of healthcare.

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 this year. In order to improve the visibility of the support services of JMC, the students also received information regarding the Office for 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 shared with the students.

Support Systems

"Personal" Dean Assignment

Needs of students vary depending on the class, the time of year, and the individual student. To allow each student to develop an in-depth relationship with someone in the OSACC, each student was assigned a "personal dean." Drs. DeSimone, Lopez, and Pohl took responsibility for a third 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, and Pohl were available by beeper at night and on weekends in the event of an emergency.

Clinical Mentor Program

This program, which assigns first-year students to two half-days in a physician office, was designed to provide a clinical role model to incoming medical students. Students are then encouraged to utilize this person as a mentor and friend during their four years at Jefferson Medical College. This year, 128 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.

Academic Support

The Deans for the OSACC maintained a proactive stance regarding student academic performance by having annual mandatory meetings with their assigned students. In addition, Drs. DeSimone, Lopez, and Pohl, along with course coordinators 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 monitors students on medical and non-medical leaves of absence and their subsequent re-entry to medical school. The Office coordinated a special program for these students, for students transferring into the third year from another medical school, and for students returning from the PhD phase of the MD/PhD programs. Under the direct observation of a faculty member, students review history-taking and physical examination skills.

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 James Youakim, MD 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.

The AOA Chapter of Jefferson Medical College continued their initiative called the AOA Amigos program. It was designed to increase interaction between first- and fourth-year students and to provide first-year students with another resource for support.

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.

Wellness Initiative

A Wellness Initiative, supported by the Dean for JMC, was implemented 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 Activities Office. It performed an inventory of the current campus and city programs and designed a wellness curriculum as well as developed and implemented a JMC Wellness Web site.

Career Planning and Clinical Counseling

The Alumni Association coordinated Career Day held on December 3 and 4, 2003. On the first day, physicians presented brief reviews and answered questions about their specialty. On the second day, residents discussed their perspectives on the match process as well as on their chosen specialty. 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 three 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 second career counseling.

Two booklets were updated and distributed to third-year students. 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 13, 2004, Dr. Pohl held a meeting with the Class of 2005 regarding fourth-year curriculum and planning for postgraduate training.

This year, Dr. Timothy Brigham and Dr. Pohl again organized the Careers in Medicine workshop for first-year medical students in order to enhance the career planning process for students. The program, sponsored by the Association of American Medical Colleges (AAMC), provided students with information regarding career decisions. Drs. DeSimone and Lopez 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.

Postgraduate Training

Twenty-four 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 preclinical grand rank and third-year rank.

Match 2004

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 2004 Match. 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 18, 2004.

On October 22, 2003, the Associate Dean, along with 15 different Program Directors of Thomas Jefferson University, met with the Class of 2004 to provide information regarding residency selection and the interviewing process. Dr. Pohl reviewed the ranking procedure of the NRMP with the senior class on February 10 and

11, 2004.

As seen on Table 1, of the 232 senior students (Class of 2004), 217 (94%) participated in the National Resident Matching Program (NRMP). Of the match participants, 21 students (9.6%) were unmatched (Table 2). Nationally, the unmatched rate was 7.1 percent. All the unmatched students were subsequently matched to good positions or attained research positions. Fifteen (6%) students elected not to participate in the match either because of a commitment to one of the armed services, acceptance to a position outside of the match, an acceptance to a position in the Advanced Matching Program, or deferment of their training.

The specialties chosen most frequently by the 217 seniors going on to postgraduate training were Internal Medicine (27%), Anesthesia (9%), Emergency Medicine (9%), and Family Practice (9%). Of this year’s seniors going onto residency training, 108 (50%) entered primary care specialties including internal medicine, family medicine, pediatrics, medicine-pediatrics or obstetrics and gynecology residency. Sixty-four percent of seniors participating in the NRMP matched at a primary university affiliate for their PG-1 year. Ninety-two students accepted PGY-1 appointments in Pennsylvania, and 66 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

Table I
JMC Match Program Selected Data

| | 2004 | 2003 | 2002 | 2001 | 2000 | 1999 | 1998 | 1997 | 1996 | 1995 |
|---|---|---|---|---|--|--|---|--|---|--|
| # In Match | 217 | 184 | 197 | 202 | 201 | 201 | 212 | 201 | 211 | 199 |
| # Unmatched | 21 | 11 | 11 | 13 | 13 | 9 | 12 | 12 | 17 | 11 |
| Specialty Preferences of Unmatched Students | 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 2PreMed* 1 Rad 1 Surg 1 Trans* | 2 Med 1 Ortho 1 Path 1 Peds 1 Psych 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 Pre-med 1 Pre-surg 1 Psych | 3 EM 2 FM 1 Med 2 Ob/Gyn 1 Path 1 Peds 7 Surg | 1 EM 2 FM 1 Med 1 Ob/Gyn 1 Ortho 2 Peds 3 Surg |
| # Match at Primary Medical School Affiliates ** | 163 | 140 | 162 | 126 | 141 | 158 | 151 | 116 | 148 | 121 |

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

** Includes PG I and II (if known)

Office of Student Affairs and Career Counseling July 2004

Table 2
Initially Unmatched Students

| 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|------|------|------|------|------|------|------|------|------|------|------|
| 6.0% | 5.5% | 8.0% | 6.0% | 5.7% | 4.4% | 6.5% | 5.9% | 5.6% | 6.0% | 9.6 |

* The unmatched rate for all graduating US Seniors was 7.1% in 2004

Office of Diversity and Minority Affairs

Diversity Mission

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, 2003-2004, the diversity initiatives that were introduced in '02-'03 were continued. Many of the programs were expanded and enhanced. ODAMA sponsored a series of lectures, cultural events, and educational programs. 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. They supported all multicultural initiatives and many helped in the planning, coordination, and promotion of these programs. Overall attendance this year was excellent and it seems that the participants enjoyed the programs.

Diversity/Multicultural Initiatives

Lecture Series

The lecture series, which ODAMA sponsored last year, continues to bring in distinguished guest speakers from the medical profession and health policy. The lecture series is broken into four categories: Dean's Lecture, Diversity/Cultural Competency Lecture, Open Forum/Hot Topics Lecture, and a Community/Healthcare Disparities Lecture. The lectures focus on the underlying issues concerning the categories under diversity, healthcare issues and disparities in healthcare amongst certain ethnic groups, in addition to addressing the need of culturally competent care for all patients and health policy. All lectures were held at noon and were very well attended by the Jefferson community (students, faculty and staff).

- The Cultural Competency Lecture took place on Wednesday, October 15, 2003. The lecture was entitled, "The Latino Patient: Approaching Latinos in the Community Setting." The distinguished speaker for this topic was Hector Lopez, MD, from the Department of Human Pathology and Immunology and Medical Spanish Instructor/Coordinator,

Office of Diversity and Minority Affairs at Jefferson Medical College.

- The Dean's Lecture took place on Friday, November 21, 2003. The lecture was entitled, "Cultural Competency and Diversity in Medicine." The distinguished speaker for this topic was Edward B. Christian, PhD, Associate Dean for the Office of Diversity and Minority Affairs at Jefferson Medical College.
- The Community/Healthcare Disparities Lecture took place on Tuesday, February 10, 2004. The lecture was entitled, "Institute of Medicine Report: Cross-Cultural Healthcare." The distinguished speaker for this topic was Joseph R. Betancourt, MD, MPH, Department of Medicine and Health Policy, Harvard Medical School. In addition, he is Senior Scientist for the Institute for Health Policy and Program Director for Multicultural Education, Multicultural Affairs Office at Massachusetts General Hospital-Harvard Medical School.
- The Open Forum/Hot Topics Lecture took place on Wednesday, April 28, 2004. The lecture was entitled, "Healthcare Issues of Individuals with Disabilities." The distinguished speaker for this topic was Thomas E. Strax, MD, Medical Director, JFK Johnson Rehabilitation Institute in Edison, NJ. He is also Professor and Chairman in the Department of Physical Medicine and Rehabilitation at UMDNJ-Robert Wood Johnson Medical School.

ODAMA will continue the lecture series each year focusing on one of the categories under diversity, until all categories are covered. The projection for the incoming year is that these lectures will be integrated somewhat into the curriculum. These lectures will be offered several times within the same day to serve as a "grand rounds" lecture for the Departments of Pediatrics and Family Medicine. The same lecture will be given later in the morning for the nursing and allied health students. At noon, the medical students will be given the same lecture. The lecture series this year was highly successful.

Celebratory Events/Activities

Included in ODAMA's multicultural initiatives were cultural/ethnic events and activities. The lectures took

place at noon, and the celebratory events/activities and socials took place during the evening. Both served as a way of further promoting diversity and cultural awareness.

All lectures and events were free and open to the entire TJU community. The TJU Activities Office and the Department of Nutrition and Dietetics collaborated with ODAMA in cosponsoring events during the month-long celebrations. In addition, the Diversity Council, the Student National Medical Association (SNMA), the Jefferson Boricua Latino Health Organization (JBLHO), the Jefferson African American Student Society (JAASS), the Jefferson Association of Indians (JAI), the Jefferson Asian Diversity Enrichment (JADE), the Office of International Exchange Services, and the International Medicine Society (IMS) cosponsored events and lectures throughout the month. The student groups took the lead in helping to plan activities for each month. By actively seeking student input in the planning and coordination of the activities, it ensured active participation of all TJU students.

This year, the following cultural/ethnic events and activities took place:

Latin Heritage Month

Nationally, Latin Heritage Month begins September 15th and ends October 15th. However, due to our students' academic schedule and to ensure student participation, we adjusted the dates to eliminate any existing conflicts.

In recognition of Latin Heritage Month, Hector Lopez, MD, from the Department of Human Pathology and Immunology at Thomas Jefferson University and Medical Spanish Instructor/Coordinator, Office of Diversity and Minority Affairs, lectured on the topic, "The Latino Patient: Approaching Latinos in the Community Setting."

The TJU Activities Office offered Afro-Cuban Jazz dance lessons every Thursday from September 11th through October 2nd in addition to Salsa, Merengue and Tango lessons every Wednesday from October 7th-28th. The Department of Nutrition and Dietetics offered weekly ethnic dishes in the cafeterias of Jefferson University Hospital and Jefferson Alumni Hall. In addition, ODAMA, the Office of International Exchange Services and the International Medicine Society cosponsored presentations on international summer internships in Latin American countries. Two afternoons were scheduled for these presentations.

The month ended with an evening social. The Latin Heritage Month Cultural Dinner Dance included a buffet of Latin cuisine, professional entertainment and a disc jockey. Nearly 200 people were in attendance.

Kwanzaa

In December, ODAMA and the Jefferson African American Student Society (JAASS) cosponsored the activities for Kwanzaa. Kwanzaa was celebrated by hosting a ceremony where JAASS members explained, through poster presentations, the meaning of Kwanzaa. The candle lighting ceremony explained the "Principles of Kwanzaa," and food and fellowship followed. Nearly 100 people attended.

Expressions of Asia

In January, ODAMA, Jefferson Asian Diversity Enrichment, Jefferson Association of Indians and the Diversity Council cosponsored the activities for "Expressions of Asia." The month began with a film festival. Each Wednesday evening, a movie was shown: "Better Luck Tomorrow," "Bend It Like Beckham," and "Shiri." A sushi rolling night also took place.

In collaboration with ODAMA, the Office of International Exchange Services and the International Medicine Society presented summer internship experiences in Asia (Nepal, Malaysia, India and Thailand). A series of lectures was included. The following physicians served as guest lecturers throughout the month. Philip Siu, MD, Director of the Chinese Health Information Center spoke on "Chinese Immigrant Healthcare." Hie-Won Hann, MD, Department of Medicine, spoke on "Recent Advances in the Management of Hepatitis B and Hepatocellular Carcinoma." Salman Akhtar, MD, Department of Psychiatry and Human Behavior spoke on "Healthcare Issues: When Your Parents are Foreigners." Robert Diecidue, MD, ENT, spoke on "Reconstructive Facial Surgeries in Vietnam."

The Chinese New Year was celebrated at the Trocadero on 10th Street and Arch on Sunday, January 25th. The culminating event for the month was the "Expressions of Asia Cultural Evening Extravaganza." The evening began with an ethnic buffet of Asian Cuisine followed by a fashion show and entertainment by multiple performers and professional musicians. A Korean drum ensemble and Asian singer/songwriter performed. Nearly 250 people were in attendance.

Black Heritage Month

In February, Black Heritage Month began with the TJU Activities Office sponsoring African dance classes each

Thursday evening. They also featured the film “Radio” starring Cuba Gooding, Jr. on February 4th and 6th, and held an African American Craft Marketplace on February 17th and 18th. Tickets to the African American Museum in Philadelphia were available on a continuous basis.

ODAMA sponsored a lecture during Black Heritage Month under the Distinguished Lecture Series. The guest speaker was Joseph R. Betancourt, MD, Department of Medicine and Health Policy. He is also Senior Scientist for the Institute of Health Policy and Program Director for Multicultural Education, Multicultural Affairs Office, Harvard Medical School. He spoke on the Institute of Medicine Report and cross cultural care.

In collaboration with ODAMA, the Department of Nutrition and Dietetics served Soul Food Cuisine every Wednesday at the Atrium Cafeteria in the Gibbon Building and the Cafeteria in Jefferson Alumni Hall. The month ended with a Black Heritage Month Cultural Dinner. Soul food, music and professional musicians and entertainers were part of the evening festivities. TAHIRA, a percussionist, poet, storyteller and vocalist performed. The Kumba Performers led the audience in experiencing the rhythm and dancing of Africans. The audience actively participated in learning to play some of their instruments. In addition, they were taught traditional African dances and songs. Nearly 175 people were in attendance.

Diversity Week

ODAMA, the Diversity Council, Student Leader Committee and Student Representative worked diligently to plan and coordinate events for the week of April 26 through April 30, 2004.

The week began with two maps, a U.S. and World Map, placed on bulletin boards in the entrance/hall area of Jefferson Alumni Hall. The TJU community was invited to place a flagged pin on their country of origin. The maps were displayed throughout the entire week. The TJU Archives Office will be retaining the maps as part of Jefferson’s history.

We continued Diversity Week by sponsoring an event called, “Desserts from Around the World.” It was held in the entrance/hall area of Jefferson Alumni Hall On Tuesday, April 27, 2004. It was very well received and attended by the TJU Community.

On Wednesday, April 28, 2004, we had a guest lecturer as part of the Distinguished Lecture Series (which was held during Diversity Week). Thomas J. Strax, MD,

Medical Director of the JFK Johnson Rehabilitation Institute in Edison, NJ and Professor and Chair of the Department of Physical Medicine and Rehabilitation at UMDNJ-Robert Wood Johnson Medical School spoke on healthcare for individuals with disabilities.

An Open Forum/roundtable discussion with Robert Winn, MD, Department of Family Medicine, took place on Thursday, April 29, 2004. Dr. Winn spoke on “Professionalism and Lesbian, Gay, Bisexual, Transgender Health: How to Create a Safe Space for Clinicians and Patients.” This session provided students the opportunity to exchange dialogue about existing issues encountered by LGBT medical students within the classroom and clinical setting.

The culminating celebration for Diversity Week was the International Day/Multicultural Evening, which took place on Friday, April 30, 2004. In an effort to retain costs and to avoid replicating programs, ODAMA merged their multicultural evening with what has been known at Jefferson as International Day. The Student Representative and the Office of International Exchange Services cosponsored the event with ODAMA. Student organizations were asked to submit a poster presentation on a specific country and cultural group focusing on their healthcare issues. Tables displayed pictures and artifacts, and addressed each group’s healthcare needs. Entertainment and an ethnic buffet were part of the festivities. There were well over 250 people in attendance.

Jefferson Medical Language Immersion Program (JEFF MED-LIP)

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.

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.

Medical Spanish is the first course to be offered. JEFF MED-LIP will include other languages such as Mandarin and Vietnamese. A summer “immersion” experience in a foreign country where that specific language is spoken is offered as part of the program. Students will be 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.

Medical Spanish

The Medical Spanish course was completely revamped this year. The new course offers students the opportunity to learn medical terminology in addition to prevalent diseases and healthcare disparities of each Latino sub-group. Social-cultural issues are highlighted and students have the opportunity to volunteer 15 hours in a local community clinic that predominantly serves a Latino patient base.

In this world of technology, no course would be complete without the use of educational online services. Pulse serves to enhance and broaden the teaching tools used for the Medical Spanish course. Information is provided to students enrolled in the course on this site with external links to journals and articles. It is also used as a means of communicating with students and posting assignments.

For 2003-2004, there was an overwhelming response from students interested in taking Medical Spanish. One-hundred-sixty students signed up for the course. After the placement test was given, we ran two levels of basic, two levels of intermediate, and one level of advanced courses. ODAMA hired Hector Lopez, MD from the Department of Human Pathology and Immunology to teach the advanced level course. Two post-docs and two medical students (Jefferson BLHO co-chairs) taught the basic and intermediate levels.

Components

Standardized Patients

In collaboration with the Clinical Skills Center, a clinical component was added. Standardized Latino patients are used in the classroom. Students are able to practice their newly acquired skills and competencies while examining patients and taking patient histories.

Community Outreach/Health Promotions Workshops

Through a collaborative effort with Congreso Latino, students have the opportunity to volunteer some of their

time doing community outreach by conducting health promotions workshops in Spanish. The workshops are given on Mondays, Wednesdays or Fridays from 12:00 noon to 1:30 p.m. Students conducting these workshop promote preventive care by addressing Latino patients through a series of educational health programs. Topics include HIV/Aids, Diabetes, High Blood Pressure and Hypertension, Heart Disease, Cancer, etc.

Clinical Exposure/Volunteer

As part of the collaborative effort with Congreso Latino, Dr. Patrick McManus from the Department of Family Medicine, Family Medicine residents and Dr. Hector Lopez took 10 of our Medical Spanish students to do health screenings and physicals. The screenings were required for a summer enrichment program geared toward low-income Latino and African-American youth. They saw over 40 patients aged six to 18. This screening program will be done annually.

Clinical “Immersion” Experience Abroad

The “immersion” experience component came to fruition this year. The Dominican Republic was chosen as the site for JEFF MED-LIP since it is a third world country where healthcare differs substantially from that of developed countries like the United States. In addition, the relatively low cost of travel, room and board were significant factors in selecting this country.

This component was designed to give the intermediate and advanced level students the opportunity to visit a Spanish-speaking Latin American country. It enabled them to put into practice their acquired language skills and competencies. It also provided them with the opportunity to experience healthcare delivery in a foreign country while rotating through clinical facilities that might differ from those in the United States.

Through the assistance of Julio Castanos, MD, Dean of UNIBE, an agreement was reached for UNIBE to serve as the host institution for our immersion program. Dr. Castanos assigned Ernest Holbrook, MD, Associate Dean for International Students, to be the Program Director for this initiative.

In early spring, UNIBE extended ODAMA a formal invitation to a site visit of the facilities. In early May, Assistant Dean Luz Ortiz, Dr. Christian, and Dr. Lopez conducted a site visit of the medical school, hospital, and clinic. The main facilities include UNIBE, Plaza de la Salud General Hospital (main teaching hospital) and the Dominican Institute of Dermatology (community clinic).

In June, one Medical Spanish student took part in the immersion program at UNIBE. According to his communications, the program was highly successful. He has found his experiences to have been exceptional and invaluable.

Residents from the Department of Family Medicine have expressed interest in participating in the program's "immersion component." In January of 2005, a Family Medicine Resident will be rotating through UNIBE's clinical program. ODAMA will facilitate the process for these residents.

It is our hope to send 20-25 students each summer. We hope to expand JEFF MED-LIP to include other languages and countries in the future.

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. Originally, the Diversity Council was divided into several categories or committees: Education/Curriculum (Diversity Affairs), Events/Activities (Diversity Affairs), Recruitment/Retention/Pipeline Programs (Minority Affairs), Community Affairs (Diversity Affairs), and Research/Grants (Diversity and Minority Affairs). The majority of the members belonged to multiple committees. Therefore, the committees were abolished and members were encouraged to participate in those areas that interest them the most.

Membership, this year, rose to nearly 20 students. Since most of the members were also student leaders, they became known as the "ODAMA Student Leaders." The majority of the students were involved in nearly all programs at one point or another. Their active participation in promoting these programs ensured a large turnout in all initiatives and a highly successful year for ODAMA.

SAT Prep Program

Last year, under the Diversity Council, students who were under the Education/Curriculum and the Research/Grant committees worked on an SAT Prep program for low-income, inner-city high school students in the greater Philadelphia area. Under the auspices of ODAMA, the program came to fruition. The hope was to "level the playing field" by providing free testing services to aspiring students who were not able to pay for test preparation courses at the current exorbitant fees. Rhanvir Dhillon, MSII brought together a group of students from Jefferson, UPENN, and Temple to do the primary teaching on a volunteer basis. Through his

dedication and perseverance, the group was formed and the program was called "Roses from the Concrete: On the Rise SAT Prep Program." All instructors were screened to meet specific requirements.

For the 2003-2004 fiscal year, Rhanvir Dhillon served as the director of the program. Coordinators for each specific site were chosen in addition to coordinators in each subject area. A schedule was put together for thoroughly training all instructors. The program began in January 2004. It took place at the following sites: Kensington High School (four students); Strawberry Mansion High School (20 students); University City High School (25 students); Temple University Upward Bound Program (20 students) and JMC-ODAMA Future Docs Program (10 students). The program was highly successful. Plans are underway to include a fall SAT prep program in addition to the spring offering.

Orientation

The Office of Diversity and Minority Affairs was once again part of the orientation program for incoming first years at Jefferson. Assistant Deans Luz Ortiz and Aileen Edwards took the lead in putting together two half day diversity training sessions for the incoming class. There were approximately 110 students in each session. Two second year medical students, Rhanvir Dhillon and Alok Sawhney, were trained to be part of the team. Many students responded favorably to the program asking for additional sessions throughout the academic year and volunteering their services for next year's orientation.

In addition, ODAMA was given the opportunity to promote all of their programs, both multicultural/diversity initiatives and recruitment/retention programs, during another session within orientation.

Curriculum

The curriculum for incoming first years included "diversity" within the scheduled time slots under the MP 21 course. ODAMA prepared a variety of diversity training exercises for the students which included BAFA BAFA, Reversing the Mirror, the Heart Transplant Exercise, a session on transplants performed on minorities from the Institute of Medicine report, and a panel of physicians talking about their experiences seeing patients of diverse backgrounds.

Minority Affairs

One of the goals for the Office of Diversity and Minority Affairs is to implement a plan of recruitment to enhance

the diversity within the Jefferson Medical School student body. During its first year, a strategic recruitment plan was put into effect. Extensive recruitment took place to introduce Jefferson Medical College, the new office and its staff. The initiative targets undergraduate schools nationally that have a significant number of underrepresented minority students enrolled which include the Hispanic-serving (HSCUs) and Historically Black (HBCUs) colleges and universities.

ODAMA's mission is to increase the pool with well-informed, well-educated and qualified underrepresented and economically and/or educationally disadvantaged students. For our K-12 initiative, a pilot pipeline program for inner-city high school youth from the greater Philadelphia area was started in the spring. ODAMA recruiters have greeted and interacted with over 4,000 high school and undergraduate students.

With the change in definition of "Underrepresented Minority" to "Underrepresented in Medicine" by the Association of American Medical Colleges (AAMC), Jefferson hasn't had to make any major changes in its Admissions policies. Jefferson Medical College has consistently admitted students who are from "racial and ethnic" groups that are historically underrepresented in medicine, economically and/or educationally disadvantaged, or come from other countries. Jefferson's commitment to diversity remains firm and supports ODAMA's mission. ODAMA will continue to focus its recruitment efforts in finding competitive applicants that continue to be underrepresented in medicine.

Undergraduate Recruitment/Retention

Effective recruitment at this level is critical since these students are closer to becoming applicants. Following the initial strategic recruitment plan, active recruitment has taken place throughout the country targeting the Hispanic-Serving and Historically Black Colleges and Universities. Networking has taken place, and strong bonds with pre-health advisors throughout the nation have been established. You will find a summary of all recruitment trips in Table I.

The following details this year's recruitment efforts.

Open House

For the past three years, Jefferson Medical College's Office of Diversity and Minority Affairs has hosted a joint Open House with the University of Pennsylvania School of Medicine. Each school offered students a half-day program. At Jefferson, the program included representatives from Jefferson Medical College, Office of Admissions, the College of Graduate Studies, Finan-

cial Aid, and concurrent sessions for medical students and their pre-health advisors. Students attending the Open House had a session with our current medical students. Some of the topics discussed included their initial interest in a career in medicine, admissions into medical school and experiences as a student at Jefferson.

The concurrent session, aimed for pre-health advisors, focused on the new definition of "Underrepresented in Medicine" as per the Association of American Medical Colleges. The culminating session showed students and their advisors what physicians do on a daily basis. Dale Berg, MD from our Clinical Skills Center spoke on diagnosing patients correctly. There were approximately 100 individuals in attendance.

Professional Conferences

Each year, the national and regional conferences for the National Association of Medical Minority Educators, Inc., and the Association of American Medical Colleges (GSA/MAS) serve as primary recruitment site. In addition, annual conferences for the National Hispanic Medical Association (NHMA) and the Society for Advancement of Chicanos and Native Americans in the Sciences (SACNAS) provide us with the unique opportunities of recruiting hundreds of students attending their conference as well. These professional organizations are interested in increasing the number of underrepresented students in medicine. The conferences attract a critical mass of students from the tri-state, extended tri-state, and national areas. Each year the conference is held in a different state providing recruiters the opportunity to see students from all parts of the country. It is a highly successful recruitment opportunity.

National and Regional Conferences-Medical Student Organizations

Another recruitment tool for the Office of Diversity and Minority Affairs is to recruit at national and regional conferences sponsored by the medical minority student organizations. The Student National Medical Association and the National Boricua Latino Health Organization sponsors these conferences. Their main mission is in increasing the number of underrepresented students in medicine. ODAMA representatives are invited to serve as panelists for workshops at these conferences. In addition, a recruitment fair enables us to speak individually to students.

Graduate and Professional Recruitment Fairs

Recruitment fairs held by undergraduate colleges and universities provide us with the opportunity to see mass

numbers of students. ODAMA representatives traveled extensively throughout the nation to participate in these fairs.

Summer Enrichment Programs – Recruitment Fairs

Throughout the country, many medical schools have established “pipeline” programs for underrepresented undergraduates and high school students. These programs are offered during the summer as enrichment programs and have incorporated a recruitment fair. Prior to the recruitment session, ODAMA representatives have the opportunity to promote Jefferson to the entire audience by serving as panelists for workshops.

Admissions Data

ODAMA has made a concerted effort to recruit in all venues that will attract students to Jefferson Medical College. It is our hope that through this recruitment effort, a large number of underrepresented applicants are admitted on an annual basis. ODAMA, in collaboration with the Office of Admissions, has recruited students at individual and joint conferences.

The following table provides data on the progress made toward increasing this applicant pool.

High School Recruitment

Recruitment efforts at this level are also imperative since we need to create a pipeline of qualified students for the medical school. ODAMA is effectively playing a role in this effort. Since students begin to make career decisions early in their educational life, they will be exposed to the medical profession at this point. Enrichment opportunities are provided to encourage students to pursue a career in medicine while offering effective guidance and counseling for successful preparation.

The following details ODAMA efforts.

Future Docs Program

| Entering Class | 2003 | 2004 |
|----------------------------------|-----------------------|------------------------|
| Total JMC Applicants | 7499 | 7617 |
| Total JMC URM Applicants | 306 | 470 |
| Total URM Applicants Interviewed | 45 | 81 |
| Total URM Applicants Accepted | 40 | 58 |
| Total URM Matriculants | 8 As of 7/30/03 | 16 As of 7/30/04 |

To begin a pipeline into the medical school, ODAMA implemented a one-month pilot program called Future Docs. The program is geared toward high school students who have an interest in the sciences. Previously, the students would come to Jefferson once a week for an hour and a half for four consecutive weeks. Students had the opportunity to meet with ODAMA representatives, current medical students, and physicians. Informational sessions included preparation for undergraduate and medical school admissions. Skills and competencies were enforced through educational seminars. In its first year, there were 13 applicants. Nine students were accepted.

This year, the program was expanded and strengthened. The program ran for nine weeks, once a week, for three hours. Eighteen students applied; 16 were accepted; 12 students participated in the program.

Students came from high schools in the greater Philadelphia area including Kensington, Edison, JR Masterman Laboratory and Demonstration School, Central, and Franklin Learning Center.

In addition, new sessions were added to include careers in graduate biomedical research and the health professions. The writing skills sessions were enhanced and expanded, focusing primarily on writing personal statements and essays. Anatomy lab, the Clinical Skills Center, and the Fish Lab served to provide the students with hands-on experiences.

Roses From the Concrete: On the Rise SAT Prep Program was also incorporated into the Future Docs program. Students were given one hour of SAT prep within the Future Docs Program and an additional hour each week at their respective high schools. The students received a total of 18 hours of SAT Prep within the nine week period. It is our hope to continue the program while seeking ways to expand in the future.

“Grow Into Your Future” Medical Poster

Nearly two years ago, a poster was designed to encourage minority youth to consider a career in medicine and to introduce the high school enrichment program at Jefferson. This poster continues to be distributed to all middle schools and high schools in Philadelphia and the tri-state area.

Recruitment Materials

ODAMA is currently updating existing recruitment materials.

Brochure

The current brochure is being revised to reflect changes that have occurred within the past year in the Office of Diversity and Minority Affairs, ODAMA's Web site, admission's data, housing, etc.

Advertisement

This year, ODAMA placed an advertisement in the Spanish newspaper *Al Dia* encouraging students to pursue a career in medicine at Jefferson. This newspaper reaches Latinos in the greater Philadelphia area.

Web Site

The Web site provides viewers with information about ODAMA, its mission and programs. It is also used for

recruitment purposes. The site targets a full spectrum of viewers: prospective students, pre-health advisors, current Jefferson Medical students, faculty, and staff. For fiscal year 2003-2004, there was a dramatic increase in the number of visitors to the Web site. (Table 2)

Edward Christian, PhD

Associate Dean for Diversity and Minority Affairs

Luz Ortiz, MA

Assistant Dean for Diversity and Minority Affairs

Table I
Recruitment Visits and Professional Development Conferences
2003-2004

| Date | Place | Event | Approx. # of Students |
|---------------|--------------------------------------|--|---|
| 9/18-23/03 | Kansas City, MO | NAMME National Conference* | 600 Prof. Dev./Networking |
| 10/2-5/03 | Albuquerque, NM | SACNAS Annual Conference | 800+ |
| 10/27-31/03 | Miami/Tampa, FL | Recruitment-Local Colleges/ Univer | 450 |
| 10/31-11/3/03 | Gainesville, FL | ASMA Premed Forum | 300 |
| 11/7-11/03 | Washington, DC | AAMC Annual Conference* | 300 Prof. Dev./Networking |
| 11/14/03 | Philadelphia, PA | ODAMA/UPenn Joint Conference | 100 |
| 2/6-8/04 | Ithaca, NY | BBMTA Conference- Cornell Univ. | 150 |
| 2/28/04 | Union, NJ | HAHE Conference- Kean Univ. | 125 |
| 3/6-13/04 | Honolulu, HI | NAMME-Western Regional Conference | 100 Prof. Dev./Networking |
| 3/19-21/04 | Washington, DC | NHMA National Conference* | 100 |
| 4/22-25/04 | Rochester, NY | GSA/MSA Regional Conference* | No Recruitment Prof. Dev./Networking |
| 5/9-14/04 | Santo Domingo, Dominican Republic | Site Visit-Summer Internship/Med. Span. | No Recruitment |
| 5/31-6/6/04 | Miami, FL | NCORE Annual Conf. * | Prof. Dev./Networking |
| 6/28-7/2/04 | Washington, DC | NAAHP Biannual Conf. | Networking-Advisors Across Nation |

*These conferences also served as Professional Development

Table 2
ODAMA Web Site Traffic
2003-2004

| ODAMA Web Site Section | Number of Viewers |
|---|--------------------------|
| http://www.jefferson.edu/odama/home/index.cfm | 1,865 |
| http://www.jefferson.edu/odama/ | 1,776 |
| http://www.jefferson.edu/odama/minaff/ | 1,118 |
| http://www.jefferson.edu/odama/divaff/ | 636 |
| http://www.jefferson.edu/odama/contact/ | 450 |

The Student Council is comprised of elected representatives from each class at Jefferson Medical College. 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

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 (James D. Plumb, MD, 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 treat homeless men at the Salvation Army's Gateway Shelter in North Philadelphia and St. Columba's Shelter in West Philadelphia. JeffHOPE continues to send students to its newest clinic sites, the Women of Change shelter in Center City and Prevention Point (needle exchange site) in North Philadelphia. This year saw the fifth annual JeffHOPE Ball, a formal event held at the Ben Franklin House designed to raise money and awareness of JeffHOPE's cause, as well as honor faculty who have been integral to JeffHOPE's creation and perpetuation. The ball is always a grand yearly event.

International Day

This one-day event is held in the spring on Scott Plaza. It celebrates human diversity at the University. Festival attendees sample ethnic foods, learn about each nation's medical contributions, and experience traditional music, costumes, dance and drama. Financial resources are procured from the University's Commons Board, the JMC Student Council and local businesses.

Freshman Assistance Committee (FAC)

This organization consists of the two student representatives from the Student Affairs Committee and a select group of students from the second-year class. The purpose of the FAC is to facilitate the integration of JMC first-year students into the Jefferson and local communities through various engaging social activities and informational workshops. The Big-Sib program is under the direct supervision of the FAC, and this program links first-year students with a trained second-year student who volunteers to serve as a student mentor. Group leaders and student advisors are available as a resource to first-year students throughout the year.

Food for the Homeless

JMC students donate food and staff to several homeless shelters in Philadelphia, as well as participate in a local meal delivery program run by the Mercy Hospice. The American Medical Association-Medical Student Section (AMA-MSS), the American Medical Student Association (AMSA) and the JMC Student Council form a strong core of students who routinely organize food drives.

Special Olympics

Each year, many JMC students staff tables and booths and hold organizational positions in the Delaware Valley Special Olympics.

Jeff Elect

The students involved in this organization participate in lunchtime visits to Philadelphia high schools to provide relevant health information to pregnant teens and help to facilitate their entry into the health care system. Informal presentations are given to help these teenagers on issues ranging from prenatal nutrition to positive discipline. The teens are actively encouraged to share their own experiences with each other and with the Jefferson educators.

Thanksgiving Food and Clothing Drive

This is an annual effort by the entire Jefferson community to donate food and clothing to area shelters in the spirit of the holiday. The Drive is coordinated by the American Medical Women's Association (AMWA) and the AMA-MSS.

Beacon School Project

The Family Medicine Society and Jefferson Public Health Society combined forces to organize JMC students' participation in an after school project at the Beacon School in Philadelphia. The enriching curriculum is designed to encourage healthy decision making in middle school age children. Activities are made to be engaging and include topics such as good nutrition, safety and what health care means to them.

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, Planned Parenthood activities and events concerning women's issues. This group has served as an excellent resource for women in medicine.

Student National Medical Association (SNMA)

SNMA sponsors a Health Professions Exposure/Recruitment Program to promote healthcare careers among minorities. Jefferson's chapter targeted the city's tenth- and eleventh-grade students who are interested in the sciences to help promote interest in the health professions, provide exposure to the Medical College and TJU Hospital, and to provide information about steps necessary to become a healthcare professional. SNMA students are also active in the recruitment and matriculation of minority students.

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.

Society for Tomorrow's Physicians

Dedicated to educating students on the extended roles of physicians in the community, as well as improving self-awareness to the evolving medical environment, Society for Tomorrow's Physician has provided lectures including computers in medicine, politics in health care, and topics in managed care.

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 to obtain faculty support and credit for international electives.

JMC boasts more than 60 student organizations. In addition to chapters of national organizations and honor societies, numerous 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.

Student Council Officers

The following students served as Student Council Executive Officers for the Spring and Fall of 2003:

| | |
|----------------|-----------------------|
| President | Chan W. Park, '05 |
| Vice-President | Stephen J. Tai, '05 |
| Secretary | Ami Kapadia, '05 |
| Treasurer | Margaret Johnson, '05 |

The following students currently serve and will continue to serve as Student Council Executive Officers for the Spring and Fall of 2004:

| | |
|----------------|------------------------|
| President | Mary E. Bove, '06 |
| Vice-President | Georgia Lee, '06 |
| Secretary | Swetha Srinivasan, '07 |
| Treasurer | Roman Politi, '07 |

Mary E. Bove '06

President, JMC Student Council, 2003-2004

Table I
JMC Student Organization by Category

| Career Oriented | Faculty Advisor | Student Contact |
|--|--------------------------------------|--|
| Amadio Family Medicine Society | Dr. F. Markham | Derrick Johnson '06 Katherine Mahon '06 |
| American Medical Student Society | Dr. C. Pohl | Aditya Mattoo '06 |
| American Medical Women's Assoc | Dr. K. Novielli | Kaanchan Gangal '07 |
| Jefferson Anesthesia Society | Dr. R. Jan | Nathan Boyer '06 |
| Ars Medica | Dr. G. Brainard | Abigail Templeton '07 |
| Jefferson Ambassadors | Ms. G. Hershman | Katie Senecal '06 |
| Duane Ophthalmology Society | Dr. M. Pyfer | Michael Ehrlich '05 |
| Emergency Medicine Society | Dr. P. Kolicki | Kristopher Lyon '06 |
| Gibbon Surgical Society | Dr. J. H. Moore | Owen Tully '05 |
| Freshman Assistance Committee | Dr. C. Pohl | Sejal Shah '07 Corey Tabit '07 |
| Internal Medicine Society | Dr. S. Mather | John Ragsdale '06 |
| International Medicine Society | Ms. J. Bogen | Bubu Banini '06 |
| International Federation of Medical Students Association | Dr. J. Saukkonen | Mark Neavyn '06 |
| Edward McGehee Jeff Geriatrics Society | Dr. C. Arenson | Chris Jones '06 |
| Jefferson Problem Based Learning | Dr. G. Isenberg | |
| Jefferson Psychiatry Society | Mr. P. Herron | Tiffany Otto '04 |
| Jefferson Public Health Society | Dr. J. Plumb | Louis Stein '07 |
| Jefferson Student Dermatology Society | Dr. F. Ringpfeil | Elizabeth Richardson |
| Jefferson Orthopedics Society | Dr. P. Sharkey | Michael Pahl '04 |
| Jefferson Neurology Society (SIGN) | Dr. G. Brainard | Titlayo Alahi '05 |
| Jefferson Urology Society | Dr. L. Gomella | Mark Pe '04 |
| Philadelphia Medical Pediatric Society | Dr. A. Friedland Dr. R. Watterson | Ken Remy '04 |
| Military Medical Students Association | Dr. E. Jaeger | Jennifer Habernern |
| J. Marion Sims OB/GYN Society | Dr. A. Wolf | Sarah Spraitzar '07 |
| Jefferson Medical Oncology Society | Dr. B. Boman | Julie Newcomer '07 |
| Otolaryngology Society | Dr. D. Rosen | Cory Rubin '06 |
| Jefferson Pediatric Society | Dr. C. Pohl | Stephanie Garozzo '06 Erin Kraiser '06 |
| Jefferson Public Health Society | Dr. J. Plumb | Louis Stein '07 |
| Society for Tomorrow's Physicians | Dr. D. Nash | Ravi Patel '07 |
| Plastic Surgery Society | Dr. J. Moore | |

| National Honor Societies | Faculty Advisor | Student Contact |
|--|------------------------|------------------------|
| Amer. Med. Assoc. / PA Medical Society (AMA) | Dr. S. Schwartz | Jason Korenblit '06 |
| Amer. Medical Student Assoc. | Dr. C. Pohl | Aditya Mattoo '06 |
| Alpha Omega Alpha (AOA) | Dr. T. Thompson | Humza Ilyas '04 |
| Hobart Amory Hare Honor Med. Society | Dr. G. Kane | Lino Miele '05 |

| Special Interest | Faculty Advisor | Student Contact |
|---|--------------------|---------------------------|
| Commons Board | Ms. P. Haas | Nicole Nowakowski |
| Committee of Student Advisors (CSA) | Dr. R. Cooter | |
| Jefferson Outing Club | Dr. B. Sanford | Jamin Chi '06 |
| Jefferson Arts Organization | Dr. C. Pohl | Scott Sussman '06 |
| Jefferson Lambda Alliance | Dr. P. McManus | Michelle Sperry '07 |
| Freshman Assistance Committee | Dr. C. Pohl | Koel Guhu '06 |
| Medical Innovation Forum | Dr. H. Greenberg | Robert Anolik '06 |
| Jefferson Students Educating and Advocating (SEALS) | Dr. L. Lane | Allyson Zuber '07 |
| Jeff Recycles | Dr. G. Brainard | David Assis '05 |
| Jeff elect | Dr. G. Datto | Onya West '07 |
| Histones | Dr. R. Schmidt | Milap Mehta '06 |
| Married Students/Significant Others Society | Grace Hershman | Josh Sheridan '06 |
| Medical Students for Choice | Dr. C. Sultana | Heather Scott Schmidt '05 |
| Jefferson Students for Life | D. J. Youakim | Edna Clogg '07 |
| Professional Code of Conduct Comm. | Dr. J. Studdiford, | Kevin Scott '06 |
| TJU Choir | Dr. R. Sataloff | Margaret Baroody |

| Athletics | Faculty Advisor | Student Contact |
|-----------------------------------|-----------------|-----------------------------------|
| Ultimate Frisbee Club | Dr. B. Sanford | Dan Kaminstein '07 |
| Intramural Sports and Tournaments | Amy Wagner | |
| Soccer Club | Dr. M. DeCaro | Katie Shrack '07 Alex Poor '07 |
| Jefferson Karate Club | Dr. R. Lipman | Chris Colletti, '05 |
| Jefferson Kendo Club | Dr. H. Kaji | Arthur Nam '04 |
| Jefferson Rugby Football Club | Dr. T. Nasca | Garig Vanderbilt, '04 |
| Jefferson Soccer Club | Dr. M. DeCaro | Gary Kegel, '05 |
| Volleyball Club | Dr. T. Knudsen | Stephanie Cho |
| Karate Club | Dr. R. Lipman | Chris Colletti '05 |
| Kendo Club | Dr. H. Kaji | |
| Rugby Football Club | Dr. T. Nasca | |
| Squash Club | Dr. J. Farber | Leah Bernstein '04 |
| Tennis Club | Dr. B. Sanford | Karen Hardy '05 |
| Water Polo Club | Dr. M. Curtis | Matthew Hansen '06 |

| JMC Related | Faculty Advisor | Student Contact |
|-------------------------------------|-----------------|----------------------|
| Big Sib Program | Dr. C. Pohl | Koel Guhu '06 |
| Jeff Mentors | Dr. P. McManus | Pavan Segal '06 |
| Black and Blue Ball Committee | Dr. C. Pohl | Marissa Weber '07 |
| <i>The Clinic</i> (Yearbook) | Dr. C. Pohl | Jen Benjamin '04 |
| Freshman Assistance Committee | Dr. C. Pohl | Amber Stonehouse '05 |
| JMC Student Admissions Coordinators | Dr. C. Callahan | Andrea Kline '06 |
| JMC Student Council | Dr. C. Pohl | Mary Bove '06 |

| Cultural/Religious | Faculty Advisor | Student Contact |
|---|------------------------|------------------------|
| Jefferson African-American Student Society | Dr. E. Christian | Melissa Dumas |
| Jefferson Asian Diversity Enrichment (JADE) | Dr. C. Cheng | Christina Hsu '07 |
| Jefferson Association of Indians | Dr. S. Akhtar | Hitesh Shah '06 |
| Jefferson Christian Fellowship | Dr. G. Merli | Suzie Bouchardin |
| Jefferson Jewish Student Assoc. | Dr. A. Zeiger | Michael Cygler '05 |
| Jefferson Boricua Latino Health Org. | Dr. J. Martinez | Jessica Hutchinson '04 |
| Jefferson Persian Society | Dr. M. Hojat | Soorena Khojasteh '06 |
| Islamic Medical Assoc. | Dr. E. Christian | Ednan Sheikh, '05 |
| Louis Pasteur Catholic Society | Dr. J. Youakim | Kirsten Tollefson '06 |
| Student National Medical Assoc. (SNMA) | Dr. E. Christian | Kevin Scott '06 |
| Diversity Council | Dr. E. Christian | |

| Community Service | Faculty Advisor | Student Contact |
|-------------------------------|------------------------|------------------------|
| Bridging the Gaps | Ms. M. Hervada-Page | |
| Clowns for Medicine | Dr. R. Horn | Kenneth Remy '04 |
| Jeff H.E.L.P. | Dr. J. Plumb | Corey Nelson '06 |
| Jeff H.O.P.E. | Dr. J. Plumb | Sarah Ambro |
| Jeff H.O.P.E. for Kids | Dr. C. Pohl | Andrea Kline '06 |
| Jeff PHASE | Dr. J. Plumb | Ahmad Nain |
| Operation Smile | Dr. W. Buchheit | Richard Yoon |
| Jeff YES: Adolescent Outreach | Dr. P. McManus | Laura Shane '06 |
| Jeff Elect | Dr. G. Datto | Priscilla Merriam '06 |

University Office of the Registrar

Overview/Student Demographics

During the 2003-2004 Academic Year, the University Office of the Registrar reported an opening Fall enrollment of 2,324 students in the combined three academic divisions of the University: 933 in Jefferson Medical College (40%), 789 in Jefferson College of Health Professions (34%), and 602 in Jefferson College of Graduate Studies (26%).

Of the 494 men and 439 women comprising total enrollment in Jefferson Medical College, geographic origination was diverse, with 35 states, the District of Columbia, and 10 foreign countries represented. Consistent with previous years, just fewer than 74% of the enrollment came from five states. Pennsylvania residents accounted for (47%, 435) of the total enrollment, followed by New Jersey (11%, 105); Delaware (8%, 72); New York (5%, 47); and California (3%, 30). International students originated from Malaysia, with six enrolled as part of our affiliation with the International Medical University, located in Kuala Lumpur, also, Canada with five students in attendance, and one student each from Nigeria, Moldova, Ghana, Brazil, India, Kenya, Nepal and the United Kingdom.

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Special academic programs remained attractive to students with 68 enrolled under the Jefferson/Delaware Medical Education Program, 78 in the Pennsylvania State University Accelerated Program, 33 in the Jefferson Physician Shortage Area Program, and 23 in the Delaware Scholars Program. Combined MD/PhD programs in conjunction with the Jefferson College of Graduate Studies accounted for 17 students in either of the two colleges during 2003-2004. Nine students were enrolled in the joint Jefferson/Widener MD/MBA program.

At Commencement exercises on June 4, 2004, the Doctor of Medicine degree was awarded to 230 candidates in the Class of 2004.

BANNER/Technology and Web Enhancements

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

The Web-based manner by which the rising third- and fourth-year students submit requests for clinical rotations was introduced last year. Experience with this new process and student feedback guided the relatively minor adjustments made this year. While the problem of limited clinical spots remains an issue, student satisfaction remains at a high level, as supported by comments received at the online demonstration/student training sessions and by email.

An extension of the clinical scheduling process and a major addition to Banner student online services was the introduction of the ability for third- and fourth-year students to add and drop a significant number of clinical courses online. Certain clinical rotations require specific academic department approval prior to scheduling and remain a paper process at this time. Further investigation is planned to determine how these rotations may be accommodated within the online process.

Student reaction has been uniformly, and overwhelmingly, positive concerning the ease and convenience of this process. Administratively, benefits have been noted within the office with the elimination of much of the prior data entry required by the previous paper process. Additionally, student office traffic has been greatly reduced.

To support this process and maintain the ability of academic clinical departments to monitor their class list information, respective course and educational coordinators were given the ability to view this information online. System tutorials were developed and provided as online access requests were received. As with any major change of process, a steep learning curve was expected. Further modification of the process will be made as further experience dictates.

A second major enhancement, once again with support from Jeff-IT, was the creation of a Banner Web-based screen accessible to fourth-year students that will provide the capability to determine which Letters of Recommendation in support of residency applications have been received by this office. In prior years, students needed to visit or telephone the office to obtain this information, resulting in inconvenience to students as well as a disruption of workflow for office staff. Students will now be able to log on and view the names of individuals who have submitted a recommendation letter on their behalf. This information is entered as letters are received and is immediately available online to students.

The third enhancement completed this past year was “fine tuning” of the Medical Student Performance Evaluation (MSPE) process, as experience was gained in last year’s initial process roll out. Final clinical grades were incorporated in the original template letters, tracking settings were modified, and each letter writer was provided with electronic copies of the clinical evaluations for each of their students.

In addition to the goals noted above, during the coming year the University Registrar’s Office will be reviewing the possible expansion of the online university calendar to include additional academic scheduling information, planned implementation of online block scheduling and enhancing add/drop capability for JCHP and JCGS students. Investigation will take place to determine if more robust classroom and event scheduling software is available without the need to expend capital resources. Planned Web site enhancement includes the development of a forms center for ease of distribution of commonly requested forms. Finally, the recently approved Family Educational Rights and Privacy Act electronic signature ruling will be reviewed to determine how we may best use this capability in our processes.

Additional Major Services

The office produced and mailed approximately 150 Medical Student Performance Evaluation (MSPE) packets to residency programs outside of the AAMC Electronic Residency Application Service (ERAS) for the JMC Class of 2004. Nearly 80 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 has continued to be significantly decreased. Office responsibilities in this process remain critical even with the electronic process. This past year, approximately 275 students’ and graduates’ information was electronically transmitted to residency programs, comprising an estimated 6,000 documents. ERAS served approximately 98 percent of the Class of 2004.

Professional Affiliations

The Senior Associate University Registrar continued in a leadership role in the American Association of Collegiate Registrars and Admissions Officers (AACRAO). He is a member 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 Utah AACRAO regional organizations. Additionally, he was an invited presenter in the AACRAO-sponsored “Registrar 101” training workshop for colleagues new to the profession.

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 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 and Jefferson Health System (JHS) house staff.

BANNER and Other Technological Advancements

The Financial Aid Office continues to assess and expand online services for students. Efforts during the 2003-2004 year focused on further enhancement of the Banner system's functionality, primarily the use of Banner Web and the ability for students to file financial aid application material online.

For the 2003-2004 academic year, approximately 90 percent 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, 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. No new questions or fields were added this year but may be in the future to better assist in awarding institutional, state, and federal aid programs.

Two online advancements outside of BANNER were introduced to our new students in the 2002-2003 academic year and continued to be used successfully in the 2003-2004 year. The first new process was the elimination of the previous "paper" method for students to complete the Federal Stafford Loan Master Promissory Note (MPN). Working with our lenders, we were able to take advantage of a federal process, which gives students the option of completing the federal MPN online, and sending it to the lender with an electronic federal PIN signature. This federal PIN can be used to complete and access many federal applications and personal databases. The second advancement was a Web-based Entrance Interview using a previously established lender site. The federally required Entrance Interview consists of loan counseling for new students prior to disbursement of federal funds. As many new students are not on campus prior to loan disbursement, this new online process has allowed students the ability to complete the requirement and attain the necessary information prior to their arrival at TJU. These two processes continued to work very well for students this

year. They 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 related to loan processing allowing for 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 serve.

Sources of Financing

Table 1 and Figure 1 show the total aid awarded to Jefferson Medical College students during the 2003-2004 academic year. In reviewing this data, it is important to note additional characteristics regarding the composition of total funding.

Of the \$28,144,009 borrowed during 2003-2004, \$18,413,947 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 \$6,553,834 awarded in grant and scholarship funding, \$2,545,201 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 2003-2004 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 2003, Federal Work Study funds sponsored 16 Jefferson Medical College students and five Jefferson College of Health Professions students in the BTG program, thus providing support for 60 percent 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.

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 through placement of FWS students in ARAMARK Day Care centers. Expansion continued during 2003-2004 with eight JCHP students and seven JCGS students in the ARAMARK Day Care centers and 17 JMC students in the Jeff HOPE for Literacy, Eliza Shirley Shelter, and The Village Community Center literacy programs. In addition, seven JCGS 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 2004-2005 academic year.

Student Indebtedness

Table 2 shows the average debt for Jefferson Medical College’s graduating class of 2004, with comparative data for the four preceding years (2000-2003). 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 2002 through 2004, 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 2002, federal

Stafford rates ranged from a high of 6.32% during their freshman year to 5.39% during their senior year. Comparable rates for the Class of 2003 and 2004 were 6.32% and 3.46%, and 7.59% and 2.82%, respectively. This demonstrates that while the overall cost of borrowing was relatively low for all three classes, the cost declined significantly for the Class of 2004.

As noted below, due to the current economic environment, the interest rates for Federal Stafford and related consolidation loans continue to decline. Consequently, it is expected that our increasing debt patterns will continue in the foreseeable 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 for JMC Students and JHS Residents

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 second 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 2003-2004 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 2003-2004 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. A similar formula exists for loans disbursed between July 1, 1995 and June 30, 1998 with the corresponding rates of t-bill plus 2.5% while in school, grace or deferment and t-bill plus 3.1% while in repayment or forbearance. Based on the current rate of the t-bill for the second straight year, Federal Stafford Loan rates and related federal consolidation rates, dropped to an all time low as of July 1, 2004. The interest rate has dropped to 2.77% and 3.57% for periods of in school, grace and deferment. For those in repayment and/or forbearance, the interest rate has been calculated at 3.37% and 4.17%.

As discussed earlier, the actual interest rate charged to a borrower is determined by the date on which the outstanding loan was disbursed. News of this decrease in rates prompted many borrowers to consider consolidation as a means of locking in to a lower rate for the life of the loan. 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. It is expected the inquiries will continue at a comparable volume during the upcoming year, especially in light of impending legislation that could change the current federal consolidation parameters from a current fixed interest rate to a variable interest rate, not to exceed 8.25%.

The complicated nature of developing an effective repayment strategy, as well as periodic changes in the educational debt market (such as the interest rate drop noted above) will result in the continued reliance of TJU alumni and JHS house staff on the Financial Aid Office's counseling services. Tracking of utilization patterns, which were initiated two years ago, will continue to determine whether alterations are necessary to insure continued provision of high quality debt-management services.

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 2003-2004, this committee was comprised of the University Registrar, Director and Assistant Director of the Financial Aid Office, Managing Director of the University Registrar's Office, Associate University Registrar, Manager of the Tuition/Cashier's Office and 36 student representatives. At monthly meetings, current campus issues, such as the Middle States site visit and accreditation process, student email system, wireless system improvements and IT services, were discussed.

This committee continues to prove beneficial to both students and the administration by promoting ongoing communication and enhancing important student services.

Committee activities included student participation in numerous advisory committees, Middle States focus groups, 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.

Legislative Issues

In addition to the interest rate change discussed previously, the tax legislation signed into law in 2001 continues to have important and positive benefits for our students, alumni and house staff. With the impending "Reauthorization" of the Title IV federal aid programs, a number of legislation proposals currently exist. These include, but are not limited to, proposed legislation to change Federal Stafford Loan interest rates for new borrowers to a fixed interest rate of 6.9% in 2006, changing federal consolidation from a fixed-interest rate parameter to a variable rate not to exceed 8.25%, and possible increase in the annual amounts a student may borrow in Federal Subsidized Stafford Loans. Reauthorization of federal Title IV aid is expected to be finalized by June 2005.

Deductibility of Student Loan Interest

Prior to passage of this legislation, medical graduates were impeded in their ability to access the deductibility of the student loan interest provision that was contained in the Tax Relief Act of 1997. This is because deductibility was restricted to interest payments made on loans in active repayment status and the (maximum) income levels were lower than starting salaries for all specialties. Consequently the only time medical graduates met the income eligibility cutoff was during residency or fellowship when they were financially ill equipped to maintain “active repayment status.” They, therefore, were limited to making voluntary interest payments on unsubsidized debt that was in deferment or forbearance status. These voluntary payments did not qualify for inclusion in the deductibility calculation.

Starting with the 2002 tax year the deductibility provisions have been expanded to include voluntary payments on loans in deferment or forbearance. This provision, coupled with the increase in maximum income levels, should allow more medical graduates to take advantage of this tax benefit. Notice of these provisions was distributed to all of the Class of 2004 during the required small group exit interviews and to

new house staff at the TJUH orientation and in the fall *Resident Debt Management Newsletter*.

As has been the pattern regarding other legislative issues of importance to JMC students and JHS residents, information about these tax provisions will remain a standard segment of publication materials and seminar topics.

Personnel Changes

Again, this year has been one of many changes in regard to the Financial Aid Office staff. Most notably, Leslie Ramusack and Holly Hatfield have been hired as Financial Aid Coordinators, replacing Laverne Glenn and Shelly Lutz, respectively. In addition, Conchita Rivera has been hired as Associate University Director of Financial Aid to replace Elena McClellan, who resigned her position to pursue a career in the banking industry.

Susan Batchelor
Director

Table I
Summary of Student Financial Aid, 2003-2004

| Type of Award | Amount |
|----------------------------|--------------|
| Institutional Scholarships | \$2,854,857 |
| Institutional Loans | \$1,157,000 |
| Other Scholarships | \$3,595,016 |
| Other Loans | \$26,987,009 |
| Federal Work Study | \$103,961 |
| Total | \$34,697,843 |

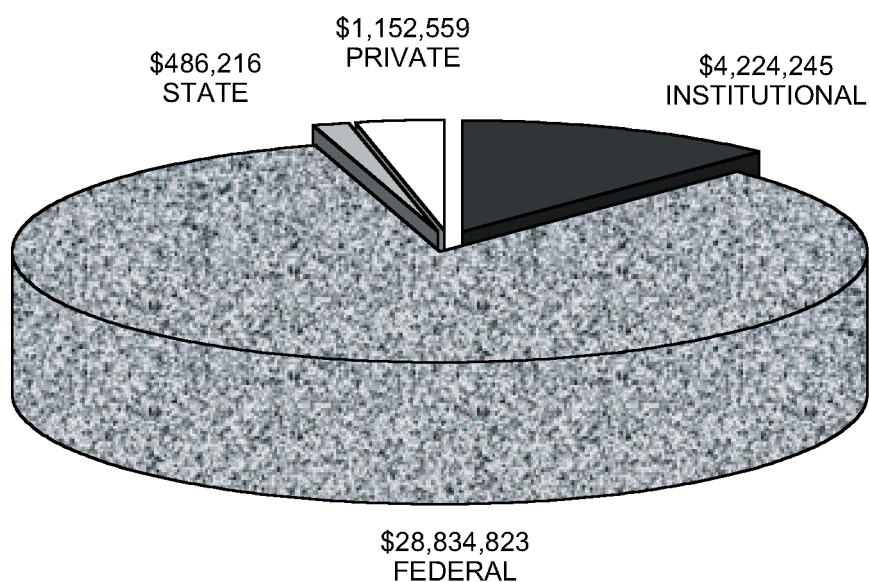
Table 2
Average Indebtedness* of Graduating Seniors**

| Graduating Class | Average Debt |
|------------------|--------------|
| 2004 | \$140,916 |
| 2003 | \$136,439 |
| 2002 | \$121,819 |
| 2001 | \$111,176 |
| 2000 | \$102,616 |

* 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 Academic Year 2003-2004
Distribution By Source



TOTAL AID \$34,697,843

Office of Undergraduate Medical Education

The Patient Encounter Log System (PELS)

This has been a very busy and challenging year for this project as PDA-based data collection for all students for the entire third year was implemented in July 2003. Submission of PELS data is now a requirement for each third-year clerkship. The Clinical Student Evaluation form has been updated to reflect this.

Based on student and faculty experience this year, several important changes have been made for July 2004. Targets for the types of patients each student should evaluate and numbers of histories, physical exams and procedures that each student should perform have been refined and revised with attention to core educational elements of each discipline. In addition, students will be able to not only download the software but also upload clerkship data directly to the Web server. Both of these changes simplify and enhance the system.

Summary reports have been generated this year for each clerkship director. Plans include development of reports for individual students (for fourth year planning) and affiliate reports for feedback and site-based educational development.

This work has been a collaborative effort 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 Jerpbak MD; Carolyn Little; Abigail Wolf, MD; Deborah Cini; John Caruso, MD; Tonya Hollaman, Joanne Gotto; Mitchell Cohen MD; James Youakim, MD; Florence Spencer and Paul Kolecki, MD).

Committee on Curriculum

The Committee on Curriculum has had another very busy and successful year. Chaired by Philip J. Wolfson, MD, the Committee includes representation from course and clerkship directors, the Dean's office and from the second-, third- and fourth-year JMC classes. This year's efforts focused on planning, implementation and monitoring of the new and existing courses and clerkships. In March 2004, the Committee welcomed Ms. Christine Kerwin as our new administrative assistant.

Major changes in the Jefferson Medical College cur-

riculum continue as new programs are instituted and recent reforms are consolidated. Year 1 is in its first year of major revision; Year 2 is in its third year since major change was first implemented, and Years 3 and 4 continue to be modified. The former course of study of an initial two years of basic sciences followed by two years of clinical sciences is being replaced by a model of study that considers medical education across all four years with integration among the basic and clinical sciences and gradually increasing attention to patient care skills and responsibilities. There is major emphasis on independent learning, professional development, and

Major changes in the Jefferson Medical College curriculum continue as new programs are instituted and recent reforms are consolidated.

exposure to role models.

In March 2004 the Curriculum Committee surveyed the Class of 2004 regarding their impressions of how well the Jefferson Medical College Learning Objectives had been met during medical school. There was overall agreement, by at least 70% and most often 80-90%, of the students that the objectives had been met. Ninety percent agreed that they had acquired "an understanding of the need to engage in lifelong learning to stay abreast of relevant scientific advances."

Year 1

The Year 1 Task Force met for 18 months under the leadership of Michael Rosenthal, MD and David Abraham, PhD and culminated this year with major revision in the format and content of the first year. Renewed emphasis is placed on establishing a framework of lifelong academic and professional development. The new first year curriculum considers the "science" and "practice" of medicine in an integrated fashion from the first day of medical school. For each block, a basic science component is linked to the year-long practice component and a single, combined grade is earned.

Block 1

Human Form and Development: gross anatomy and embryology

Course Director: Richard R. Schmidt, PhD

Block 2:

Molecular and Cellular Basis of Medicine: cell biology, genetics and biochemistry

Course Director: Peter Ronner, PhD

Block 3:

The Systems I: physiology and microscopic anatomy by organ system

Course Directors: James Spath, PhD and Ronald Jensh, PhD

The Systems 2: Neuroscience

Course Director: George Brainard, PhD

Medical Practice for the 21st Century (MP21)

Course Directors: J Lindsey Lane, MD and Christine Jerpback, MD

This course component runs all year as a part of each of the science courses, linking content to the concurrent basic science topics. MP21 content includes professionalism, ethics, medical informatics, evidence-based medicine, and clinical skills with an emphasis on case-based learning.

The first year also began earlier with First Year Orientation in the first week of August thus enabling students to finish in early rather than late June.

Year 2

This is the third year of the very successful systems-based curriculum. The year begins with *Foundations of Pathology and Pharmacology* which covers introductory and general topics which do not fit into the systems format (Course Directors Carol Beck, PhD, Bruce Fenderson, PhD and William Kocher, MD). It is followed by *Infection, Immunity and Disease* in which microbiology, immunology and clinical infectious diseases with related topics in pharmacology and pathology is presented as a fully integrated course (Course Director David Abraham, PhD). *Foundations of Clinical Medicine* (pathology, pathophysiology, pharmacology, physical diagnosis/clinical skills, and clinical medicine integrated by organ system) starts in November and runs through the end of the year. This course is directed by Steven Herrine MD in collaboration with Drs. Beck and Kocher.

Physical diagnosis teaching (Course Director Salvatore Mangione, MD) has been greatly expanded and is synchronous with topics in the basic sciences. *The Doctor in Health and Illness II* (Course Director John Spandorfer, MD) continues with a focus on psychosocial and clinical applications in a case- and evidence-based approach to complement the systems-based top-

ics, with attention to the patient's perspective, patient advocacy and evaluation of patients with physical findings recruited from Jefferson practices. A very successful Grand Rounds format was introduced this year to complement the interactive small group discussions and patient care experiences.

Year 3

The core clinical clerkships remain department-based, but with increasing emphasis on interdisciplinary teaching, especially regarding clinical skills. Each clerkship has established "targets" in terms of the numbers of patients that students should encounter and types of skills which they need to perform. Student experiences are being tracked with the PDA-based patient encounter log system (PELS).

Interclerkship Sessions continued with focus on interdisciplinary topics with major public health impact. This year's topics were obesity, moderated by Fred Markham, MD and medical errors, moderated by David Nash, MD.

An end-of-year Objective Structured Clinical Examination (OSCE) was administered to all students in April and May. 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 2 Clinical Skills examination. Students were assessed using standardized patients on their data gathering, communication, and interpersonal skills. The OSCE was developed by Katherine Worzala, MD; Dale Berg, MD; Dr. Mangione and Jon Veloski, MS in collaboration with all of the third year clerkship directors (Drs. Wolfson, Lane, Markham; Mitchell Cohen MD; Abigail Wolf, MD; John Caruso, MD).

Year 4

The fourth-year curriculum continues to evolve in order to better prepare students for residency by providing them an opportunity to refine their clinical skills, explore selected areas in depth, and reintegrate the basic sciences with clinical topics.

Emergency Medicine/Advanced Clinical Skills is a new required clerkship (Course Director: Paul Kolecki, MD). It has been designed to expand and refine clinical skills with emphasis on learning to manage subacute and life-threatening conditions. It is taught via a combination of didactic sessions, clinical skills labs, and emergency room shifts.

Scientific Foundations of Clinical Medicine (Course Director: Gerald Isenberg, MD) was designed as an alternative for the current Advanced Basic Science requirement. Students re-explore the relationships between “cutting edge” basic science research and its impact on the clinical care of prevalent medical conditions through interactive learning and critical reading of the medical literature.

Course Reviews

The course review process has been refined and standardized and applied to all courses. As a first step student liaisons summarize data collected from the entire class on a standardized template and review it with the course director(s), Senior Associate Dean for Academic Affairs/UME, and the Chair of the Curriculum Committee. Then the course director and liaisons present a course outline and the summary data to the full Curriculum Committee, at which time the course director addresses student and faculty concerns. The student response rate in completing course questionnaires has improved markedly since student evaluation was mandated as a requirement for successful course completion. Courses reviewed this year included Physiology; Histology; Neuroscience; Doctor in Health and Illness 1; Doctor in Health and Illness 2; Human Form and Development; Molecular and Cellular Basis of Medicine; Medical Practice for the 21st Century (MP21); Foundations of Pathology and Pharmacology; Foundations of Clinical Medicine and Infection, Immunity and Disease; and Emergency Medicine/Advanced Clinical Skills.

Other Activities

Voting privileges were extended to the two Chairs of the Student Liaisons Committee as well as to the three alternate student members of the Committee. The number of students who can vote has therefore increased from three to eight. There are 25 faculty with voting privileges on the Committee.

The Committee heartily endorsed the faculty development program with its ambitious series of seminars designed to enable faculty members to become better teachers, organized by Karen Novielli, MD.

Significant attention was directed this year to the review of examination practices. In order that the in-house examinations serve also as an effective educational tool, it was mandated that an effective post-examination review mechanism be established for each course and clerkship. Course and clerkship directors had the opportunity to review the National Board of Medical

Examiners (NBME) Subject Examinations in order to assess whether our courses cover the content included, and to decide whether it would be preferable to use these tests. For 2004-2005, NBME subject examinations will be used in surgery, pediatrics obstetrics/gynecology and psychiatry. The NBME has plans to offer customized formats of these examinations; our discussions will continue.

The Committee also endorsed the concept of requiring that students must pass the new USMLE Step 2 Clinical Skills Examination as a requirement for graduation. This was subsequently approved for implementation by the Committee on Student Promotion.

USMLE Step 1 Preparation

For the past several years, the Office of Undergraduate Medical Education has offered students the opportunity to take the “paper and pencil” version of the Comprehensive Basic Science Subject Examination to aid in preparation for the USMLE Step 1. This year, the medical college participated in a pilot program with the NBME to allow students the benefit of a computer-based self-assessment. Fifty second-year medical students participated in the pilot study.

Curriculum Retreat

The fifth annual curriculum retreat was held on Thursday and Friday, June 17-18, 2004 on the Jefferson campus. More than 100 faculty from across the affiliated campuses, students and former students were in attendance at this very successful event. The Planning Committee included Timothy Brigham, PhD; Karen Glaser, PhD; David Paskin, MD; Cynthia Silber, MD and Drs. Rattner and Wolfson.

The focus of the first day was on current trends and controversies in residency education that have impact on the entirety of undergraduate medical education, and the third and fourth years in particular. The keynote address, “Learning and the Science of Sleep” was presented by Dean Nasca which was followed by energetic discussion of opportunities for improvement in both the organization of the third and fourth years and in our evaluation processes.

On Friday the faculty reviewed the progress of the new first-year curriculum and heard a presentation by Agnes Butler, PhD from the National Board of Medical Examiners on the use of NBME subject examinations for courses and clerkships.

The ideas generated at the retreat will again be used in curriculum planning for the upcoming year.

Committee on Student Promotion

The Committee is chaired by Richard R. Schmidt, PhD (Department of Pathology, Anatomy and Cell Biology). The Committee on Student Promotion (COSP) reviewed and took action on more than 150 student issues this year in addition to hearing appeals and administrative review of USMLE results and grade changes.

Ms. Myeshai Brooks is the administrative assistant 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. Additionally, COSPTool will be used this year to set in place reminders for student and faculty “follow-up” functions that are mandated by the Committee (returns from academic leaves, meetings with student deans and the ad-hoc subcommittee meetings, see below).

The Committee on Student Promotion has continued to expand the use of ad hoc subcommittees to address issues of remediation and special programs. These committees are formed specifically to meet with individual students to assess the etiology of the academic problem and to develop individual remedial or curriculum plans. Each subcommittee is comprised of two to three members of the Committee and Dr. Glaser.

Many of the sub-committee actions concern poor academic performance on tests in the third and fourth year of medical school. These students make up a very small percentage of the medical student population and receive individual counseling regarding effective study strategies and test-taking.

Faculty Development Activities

- Test Item Writing - Dr. Herrine and the National Board of Medical Examiners
- Evidence-based Medicine: Background and Teaching Suggestion - Dr. Rattner and James Diamond, PhD
- How to use Role Play for Small Group Learning - Dr. Glaser
- How to Evaluate Medical Student Professionalism in the Clinical Setting - Dr. Glaser
- Documenting Poor Performance - Dr. Glaser

Professionalism and the Honor Code

The Professionalism II Task Force, chaired by Dr. Glaser and this year by Christian Coletti (JMC '05), has been

meeting regularly to develop plans to further instill professionalism into the culture of Jefferson Medical College. Strategies are being planned that encourage students and faculty to “live” the values in the Honor Code. These include circulating abstracts about ethical problems on campus to stimulate discussion among the students and faculty, having Task Force members attend departmental meetings to brief faculty about these issues, developing professionalism content into each course and clerkship, and expanding professionalism discussions into the admissions process.

Dr. Glaser and Mr. Coletti made presentations on the new Code and the new student clinical evaluation form to the Dean’s Executive Council, several clinical and

Strategies are being planned that encourage students and faculty to “live” the values in the Honor Code.

basic science departments and at the Professorial Faculty meeting on May 20, 2004.

A survey about aspects of the Honor Code and the stressors on students was developed and administered via Pulse at the end of the academic year. Results are being tabulated and will be presented to the Professionalism Task Force by late summer.

Clinical Skills Center

The Clinical Skills Center (CSC) on the fifth floor of the Sheridan Building, across the hall from the Simulation Center, has continued to be a hub of educational activity this year. Administrative responsibilities are shared by Dr. Worzala and Ms. Carol Trent. Core faculty include Drs. Mangione and Berg. Support for all technology is provided by AISR and in particular by Anthony Frisby, PhD and Ms. Martha Ankeny. Medical students in all four years and housestaff have training sessions in the center using models, high-tech mannequins (Harvey and SimMan), and/or with standardized (SP) and actual patients.

Highlights of this year included two new programs for first-year students. The faculty conducted physical diagnosis sessions with standardized patients “off site” in Alumni Hall during anatomy dissections to demonstrate applications of surface anatomy. The students also did videotaped SP interviews in the CSC that were subsequently discussed in their MP21 small groups.

In addition, 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 for the first time in a seven-station OSCE as described above.

With support from the college and generous contributions made to the CSC from JUP Golf Tournaments, the CSC moved to a new 9,000-square-foot renovated facility at 833 Chestnut Street in late June. This state-of-the-art facility houses expanded SP and simulation areas as well as additional classroom, office and resource space. We eagerly anticipate continued expansion of educational activities.

Foundations of Clinical Medicine

Foundations of Clinical Medicine (FCM) is a multi-disciplinary 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 and large and small group teaching sessions in Doctor and Society 2 and in the Clinical Skills Center are used to amplify and clarify the didactic content of this course.

Examinations take place approximately every three weeks. Students are required to achieve a passing grade for all organ systems 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 response to the new curriculum continues to be very positive. A recent comprehensive survey indicates that the integrated organ-based approach has markedly enhanced student satisfaction in the second year.

The Hartford-AAMC Enhancing Geriatrics in Undergraduate Medical Education

Jefferson Medical College completed its final year as

a participant in this national curriculum development project. Drs. Rattner and Arenson were principal investigators.

Highlights of this year’s efforts included the development and implementation of the “Jefferson Medical College Mini Medical School,” a nine-hour, six-week interactive senior health lecture series launched at the Philadelphia Senior Center. A new end-of-life curriculum was introduced into Block 1 (Human Form and Development). The teaching of human gross anatomy served as the framework for a rich introduction to this topic.

A comprehensive summary of Jefferson’s Hartford-AAMC geriatrics initiatives, as well as the details of the two educational programs described above were published in the July 2004 *Academic Medicine* supplement. Authors include Drs. Arenson, Rattner, Lane, Jerpbak, Patrick Herron, Christopher Jones (JMC’06), and Diane Reed-Small (Acad. Med. 2004; 79,7: S61-S69).

The Longitudinal Primary Care Clerkship (LPCC)

This educational initiative has now completed its third year. It is a collaborative effort between the Dean’s Office, the Departments of Medicine, Pediatrics and Family Medicine, and our affiliated programs at A.I. duPont Hospital for Children and Christiana Care.

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. Forty-six students and 17 preceptors have participated over the past three years. It has been highly rated by all participants. Nine students have enrolled in this program for 2004-2005.

Area Health Education Center Initiatives

The Pennsylvania Area Health Education Center (PAAHEC)

JMC has now completed its fifth 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 is funded by HRSA through Penn State University.

The NEPA AHEC office, located on the campus of Keystone College in LaPlume, PA, continues to grow

under the able direction of executive director Ms. Patricia Lawless. Dr. Michael Rosenthal and Dr. Rattner continue to serve on the Board of Directors. Dr. Jerpak was appointed Medical Director for the NEPA AHEC this year.

Highlights for 2003-2004 included an instructional session by staff on “Health and the Human Body” for health professions students from Jefferson and other Philadelphia medical schools as part of the “Bridging the Gaps” summer program (see below). Smoking prevention and control programs were presented by Frank Leone, MD to more than 200 health care professionals in Wilkes-Barre, PA. A tobacco cessation and reduction compact disc, developed by Jefferson’s Office of Continuing Medical Education and Dr. Leone, was distributed to all seven of the Pennsylvania AHEC regions.

Third-year clerkships in family medicine, internal medicine and surgery are now in place at the Guthrie Clinic/Robert Packer Hospital in Sayre, PA.

The Delaware-Pennsylvania Health Education Center (DE-PA AHEC)

This year, funding was secured to welcome Delaware as the eighth region in this now interstate model. Drs. Rattner and Rosenthal serve on the Planning Board, and Dr. Rosenthal has been selected as Medical Director for the DE-PA AHEC. The staff of the Delaware Academy of Medicine, in particular Judy Gavatos and Kathryn Panula, have been working with the AHEC in the roles of Acting Executive Director and Acting Administrative Assistant to facilitate recruitment of an Executive Director and incorporation of the site.

JeffMOMS

JeffMOMS (Maternity Opportunities for Medical Students) was reestablished this year under the direction of Catherine Sewell, MD (Department of Obstetrics and Gynecology). Fourteen students participated in this program. Students are matched to a pregnant woman from the JOGA clinic and support her through prenatal visits, labor and delivery. Students gain clinical experience

not only about medical issues, but about the economic, ethnic and cultural circumstances that influence care for this urban population. Patient advocacy is an important role learned during this six to nine month experience.

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 2003-2004, Jefferson was awarded approximately \$38,648 from public and private sponsors, as well as \$43,624 in Federal Work Study funds for the support of 30 students and for tracking of this program.

Faculty from family medicine, nursing and physical therapy teamed with community preceptors and supervised 15 community health sites. Students work with children, teens, elderly, homeless and addicted populations. This work was presented at the fall 2003 Bridging the Gaps symposium. Twenty-six students have been selected to participate in the summer 2004 program.

Susan Rattner, MD, MS

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 continued in its mission to provide 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 and Kathleen Piech, Administrative Assistant, continued to work together with the Office of House Staff Affairs headed by Debra Cifelli. The working relationship between the Hospital and the Medical School continues to develop, with the 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.

In January 2003, Thomas Jefferson University Hospital underwent an institutional review by the Accreditation Council for Graduate Medical Education. The institutional review is the method through which the ACGME accredits institutions that sponsor GME programs. The 2003 visit awarded Thomas Jefferson University Hospital a five-year cycle (the longest cycle between visits awarded by the ACGME), and noted four areas to which the ACGME would direct special attention at its next visit. The Division has worked this year to address these four areas. We have enhanced and refined our internal review process, standardizing a number of aspects to ensure full and complete evaluation of all of our programs. We have clarified the institutional leadership, with the appointment of David Paskin, MD as Designated Institutional Official. We have continued to address the competency mandate, as will be discussed further below. Finally, we have worked in conjunction with the hospital administration to increase the availability of support and ancillary services (transport, phlebotomy, etc.), freeing residents from work that is extraneous to their education.

The Division continues to serve both evaluative and consultative functions. The internal site visits are a highly productive tool for ongoing quality improvement in our GME programs, and are regarded by the program directors and chairs in an extremely positive light. The results are reported to the GME Committee, which continues to increase its involvement in, and

oversight of, all aspects of residency education in the hospital. Over the past three years under the leadership of Dr. Michael Vergare, the Committee has become a dynamic, involved, and dedicated body, and a major resource for the ongoing development and implementation of GME efforts at Jefferson. 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.

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.

The ACGME Outcome Project and the implementation of competency-based education in all of our GME programs has presented an exciting challenge to the Division and to all GME programs within the institution over the past year. Multiple initiatives have been implemented to address this ACGME mandate. Over the past year, these initiatives have included institution-wide educational forums, assistance in outcomes-based curriculum development, pilot programs for the development of new resident evaluation instruments, and individualized consultation with departments to assist them in implementing the Outcome Project. The Division is committed to scholarship in the area of GME, and is involved in research regarding evaluation and assessment of competence. Papers authored by the division regarding outcome assessment in graduate medical education have been accepted in peer-review publications, and several other research projects are currently underway.

Jefferson continues to be deeply involved with the Tufts Health Care Initiative. We have added a program to the investigational arm of our grant, and continue to offer the Tufts On-Line Campus to all of our programs on a non-investigational basis. So far, we have a total of 16 residency programs registered on the On-Line Campus; we plan to encourage increased utilization

by the programs already registered, and recruit new programs to register and integrate this material into their curricula. As the investigative institution with the widest experience with the THCI On-Line Campus, we were invited to present at the Investigator's Meeting, and have been invited to present at the annual THCI meeting in September.

We continue to work with our GME programs in complying with the ACGME Common Requirements for Resident Work Hours, which were implemented by the ACGME as of July 1, 2003. Most, if not all, of our programs are already in compliance. Prior to the implementation of the 80-hour workweek on July 1, 2003, our program directors, in cooperation with hospital administration and the Division of GME, demonstrated great creativity and resourcefulness by developing compliance plans for our GME programs. Implementation of these plans began this past year, and has been largely successful. We performed a survey of our more challenging programs and have developed plans to correct the few areas remaining in our residencies that are still experiencing challenges in adhering to an 80-hour week. We plan to continue monitoring these areas. In addition, the GMEC has developed a policy for those programs wishing to apply for the 10% exemption, and will begin evaluating these requests in the upcoming academic year.

In order to keep up with new information technologies in GME and to facilitate the scheduling of residents, the evaluation of residents and faculty, and the maintenance of procedural logs, the Division selected a software product that we believe will enhance our ability to manage GME data. This will permit all scheduling and evaluation to be performed online, and will allow us to collect important data about our residents and faculty while enhancing compliance. We anticipate that this data and its feedback to residents and faculty will result in enhanced teaching, education, and research in all areas of the GME programs. We have seven core residency programs that will be part of the pilot implementation, which together represent approximately 30% of our total resident complement.

The Affiliations Committee met as part of the Affiliations Day program, and the Office of Faculty Affairs presented a course on evaluation and feedback. 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. A certificate has been developed for distribution to all faculty members of all of our affiliates documenting their faculty appointment at Jefferson Medical College.

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. A strong indicator of medical student satisfaction at our affiliates is the fact that about one third (over one half of those staying in the state of Pennsylvania) of our graduating seniors this year chose Jefferson or one of our affiliate teaching hospitals for their residency training.

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 insights 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 CME (OCME) at Jefferson Medical College is part of the Dean's Office and holds responsibility for the maintenance of 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) through its ongoing participation in the Consortium for Academic Continuing Medical Education (CACME). CACME is a unique, nationally recognized organization that develops new continuing education models specific to the medical school environment of CME. Four medical schools in Pennsylvania are accredited as members of this consortium: Jefferson Medical College, Temple University School of Medicine, University of Pittsburgh School of Medicine, and Penn State University School of Medicine. The ACCME awarded CACME a six year accreditation, the highest possible designation. The ACCME further recognized CACME with commendations in the following areas of the ACCME Essential Areas and Standards:

- Planning
- Needs Assessment
- Overall Program Evaluation
- Organizational Structure and Resources
- Standards for Commercial Support

Leadership

The Office of CME is under the leadership of Geno J. Merli, MD, FACP, Ludwig A. Kind Professor of Medicine (JMC '75), Senior Associate Dean for Continuing Medical Education. A dedicated clinician-educator, Dr. Merli focuses the OCME on clinically relevant education. His multiple roles within the University complement his function as Senior Associate Dean for CME, allowing him to integrate information from diverse sources. The resulting synergies significantly benefit the CME programming of JMC.

Daily operations of the OCME are supervised by the Director, Jeanne G. Cole, MS Ed. She is responsible for JMC's compliance with national accreditation standards, suggesting improvements in educational design, overseeing 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.

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. Chaired

Over the past two years, the Committee focused on two major efforts: (1) advancing the role of CME within JMC and (2) developing collaborative relationships with other organizations to identify and fund mutually beneficial educational activities for physicians and other healthcare professionals.

by Dr. Richard C. Wender, Alumni Professor of Family Medicine and Chair of the Department of Family Medicine, 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.

Over the past two years, the Committee focused on two major efforts: (1) advancing the role of CME within JMC and (2) developing collaborative relationships with other organizations to identify and fund mutually beneficial educational activities for physicians and other healthcare professionals. In pursuit of these goals, the OCME and the Committee continue to develop the Jefferson Industry Advisory Council (JIAC). Co-chaired by committee member Dr. David B. Nash, MD, MBA and Chair of the Department of Health Policy and Dr. Merli, a group of 50 people, representing various JMC and TJU departments and more than 20 different outside organizations, met for a second time in summer 2003. This session focused on Jefferson's strengths with presentations reviewing the current environment, principles of adult education as they apply to medical education, and presentations highlighting innovations in education from four different areas within Jefferson. JIAC moves to an annual meeting with the next session scheduled for November 2004.

Another area of great importance to the OCME, the CME Committee and the University at large is the continued scrutiny of Jefferson's relationships with commercial supporters. The Accreditation Council for continuing medical education (ACCME) issued new Standards to govern these relationships. At the same time, members of the CME Committee worked in conjunction with University Counsel to develop a University-wide guidance on commercial relationships. The OCME has been in a position to provide background information and advice on the ACCME's policies and ways they are interpreted. In the upcoming year, we will work with the Committee on CME to develop new policies and procedures for disclosure and management of these relationships to be in compliance with the new ACCME Standards.

OCME staffing continues to create challenges. Increased competition for qualified CME professionals in the local marketplace has impacted the OCME as some staff members moved to positions outside the University. 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.

Mission

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 and opportunities that stimulate, educate, and empower physicians to provide the highest standard of care throughout a lifetime of professional practice. Drawing upon its combined educational, research, and clinical expertise and strength, the 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, and the public. 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 subject matter appropriate to Jefferson Medical College CME's overall educational program may encompass the entire breadth of the art and science of medicine.

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 learner 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.

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. The OCME promotes JMC's reputation outside the Philadelphia area through its certification of national symposia and lecture series and widely distributed enduring materials and selected journals. Increased use of the OCME Web site at <http://jeffline.tju.edu/jeffcme> furthers the reach of JMC's CME programming beyond borders.

During the 2003 academic year the Office of CME certified 165 activities totaling over 3,121 Category 1 credit hours, serving more than 31,785 participants.

Achievements

The academic year ending in June 2004 closed a very eventful year for the OCME, with significant advances in many areas.

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.

In an ongoing collaboration between the OCME, the Department of Family Medicine, the Division of Endocrinology of the Department of Medicine and BioCentric, Inc. produced a series of six bimonthly newsletters focused on the education of primary care providers in the important topics of diabetes. Each issue of *The Bottom Line: Achieving Diabetes Treatment Goals* is co-edited by Jefferson faculty members Dr. Richard C. Wender, MD and Dr. Barry J. Goldstein, MD, PhD, and focuses on a single case presentation and guides the participant through its management and resolution. Complete with appropriate referencing and illustrative materials, *The Bottom Line* is delivered to 90,000 primary care physicians, and is available online at a Web site custom-developed for this project by OCME and Academic Information Services and Research (AISR). (<http://jeffline.tju.edu/diabetes/newsletters/TheBottomLine/>). To date, close to 3,000 physicians have participated in the full CME experience provided by these newsletters. Initial evaluation data indicate similar results in terms of impact on physician behavior, and follow up studies are planned.

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 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 24th Annual Advances in GI program held in June 2004 maintained its position as the premiere GI educational event in the region; the Family Medicine Department's 27th annual Eastern Shore Medical Symposium sold out all available seats for the third year in a row. The Department of Medicine's Preoperative Evaluation and Post Operative Care course is another example: Held in March 2004, it overflowed the conference space with more than 100 participants from across the country. 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 Web-casts through the OCME Web site. Webcast topics

expanded this year to include uterine fibroid embolization and colon cancer prevention and treatment, bringing the active archive library to five topics.

In response to new physician licensing requirements, the OCME is working with Jefferson University Physicians and others at Jefferson to develop and certify CME activities in the area of patient safety. Pennsylvania will now require a set number of certified hours in patient safety, and we already have identified existing activities that can help our physicians meet these requirements.

The OCME also works in partnership with other JMC departments to facilitate training and educational programs for several pharmaceutical manufacturers for sales representatives. 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.

In January 2004, a Consortium for CME (CACME) panel, including Ms. Cole as Jefferson's representative, presented a discussion on developing multi-institutional collaborative continuing education activities at the Annual Alliance for CME meeting in Atlanta, GA. Preliminary data from this project indicate that the educational activity had significant effects on participant attitudes. Full data analysis is underway and a publication is being prepared.

The OCME strives to continually improve its administrative processes. An abstract entitled, "JMC-CME Web site: From 'Under Construction' to 'Paperless Office'", describing these efforts was submitted to the Alliance for CME and accepted for a workshop presentation during the January 2004 national meeting.

In May 2004, Ms. Cole was lead author of an abstract presented at the CME Congress 2004, an international CME event held in Toronto. This presentation focused on the development of CACME systems for accreditation and performance monitoring.

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 for the initiative in Achieving Diabetes Goals project and for a special Headache Center project to administer a one-day clinical preceptorship on the topic of the treatment of headaches.

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 functionality of the Web site as a method of communication with the users of CME services has been expanded as well. OCME policies and procedures for obtaining CME credits for Grand Rounds, and a PowerPoint-based in-service on this topic are recent additions to the site, and more growth in this area is under development. The goals of improving OCME communications with its clients and users, and of realizing cost savings in the delivery of those services are well on their way of 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. In July 2003, OCME implemented 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.

In 2006, the CACME organization, under which Jefferson is accredited for CME, will have its reaccreditation survey. Preparations for this survey have been underway during this year, utilizing the self-study process developed by the ACCME. Both the OCME and CACME have begun a critical self assessment of its mission and functioning in preparation for submitting the reaccreditation application in late 2005.

Geno J. Merli, MD, FACP

Senior Associate Dean for Continuing Medical Education

Jeanne G. Cole, MS

Director

Department of Health Policy

History and Strategy for Developing a Program in Health Policy

Jefferson's involvement in health policy is part of a long-term strategy for ensuring that the students, graduates, faculty and staff of the Medical College are able to adapt to the rapidly changing environment of health care delivery. More than 14 years ago, Jefferson Medical College provided support for the creation of the Office of Health Policy (OHP). Since that time, the mission and staff of the Office and its health policy programs have continued to evolve, providing research, education and consulting services to support JMC and, to some degree, the Jefferson Health System (JHS).

Jefferson now joins a handful of medical schools across the country with a bona fide Department of Health Policy.

The 2003-2004 academic year represents a watershed period in the history of health policy at JMC. In January of 2004, with unanimous support from the Executive Council of JMC, the Board of Trustees of TJU approved the creation of the Department of Health Policy. Jefferson now joins a handful of medical schools across the country with a bona fide Department of Health Policy. As a result, the Director of the Office of Health Policy became the Dr. Raymond C. and Doris N. Grandon Professor and Chairman of the Department of Health Policy at JMC effective 2004. Jefferson is also one of six medical schools in the United States with an endowed chair in this field.

Efforts are underway to create a departmental faculty and further strengthen the Department's ability to develop fundable research. Departmental research staff, with appropriate credentials, are now applying for faculty positions within the Medical College. Several faculty members in JMC clinical departments also have expressed interest in obtaining secondary appointments within the Department. In addition, the Department has now developed a "Senior Scholars" program for researchers and educators outside of the JMC community who would like to establish an affiliation with the

Department. Criteria for the Senior Scholars program and application materials also have been developed. This affiliation program will help the Department to expand the scope and funding portfolio for its activities and increase an interdisciplinary presence within the JMC community.

The Department's mission continues to be one of promoting quality cost effective care across the healthcare delivery continuum through the development of three main strategies: education, research and consulting services. A description of the achievements and accomplishments of the department within these three areas follows.

Education

Organizing and establishing advisory boards to support informed decision making in health care remained a major activity of the education team. Throughout the year, groups of nationally recognized clinical, managed care, Medicare/Medicaid, and economic experts met with the purpose of providing clients with opportunities to hear open, frank discussions regarding issues relevant to their organizations. Board members were identified and selected based on the knowledge and expertise required to respond to questions developed by the client in consultation with the Department. Several advisory boards met for a single session, others for two or three sessions. Pulmonologists, allergists, and managed care medical directors discussed appropriate use of anti-IgE therapy in asthma treatment. Psychiatrists critiqued proposed outcomes research studies. Gastroenterologists, managed care medical directors and economists considered the benefits of therapy for postoperative ileus.

A new service offered to clients is Webcasting. The Department works with "slp3D" a video services company with whom the Jefferson Departments of Marketing, Public Relations and Communications, have secured an exclusive agreement in the Philadelphia area, to produce a series of Webcasts. The Webcasting possibilities are numerous and the Department's experience indicates that this is a cost-effective method of reaching a target audience.

The Department has become a center for planning and coordinating pharmaceutical training programs. These programs are not product specific, but rather provide a context within which a given therapy would be appropriate. Trainees gain insight into which tests are ordered and why, the role of the specialist and the primary care physician in the management of disease, and the identification of significant research studies. These one- and two-day interdisciplinary programs have involved internal medicine, family medicine, gastroenterology, cardiology, pathology, infectious disease, radiology, neurology, orthopaedics, emergency medicine, pulmonology, allergy and immunology, hospital administration, microbiology, and pharmacy.

The Department organized and presented the inaugural JMC Interclerkship Day program, “Improving Patient Safety,” in January 2004. The keynote presentations by leaders from the Institute for Safe Medication Practices, Brown University School of Medicine and the Dana Farber Cancer Center were followed by workshop sessions conducted by JMC faculty. The presentation by the Dean received high praise from the third-year medical students. The JMC undergraduate education committee, headed by Philip Wolfson, MD and Susan Rattner, MD, deserves considerable credit for recognizing patient safety as an issue important enough to be included as part of the third-year curriculum. Efforts such as this put JMC ahead of other medical colleges in recognizing and incorporating national policy issues into medical education.

The Department also continued to serve as a training site for medical students who completed their freshman year and were selected to participate in the Dean’s summer internship program. In the summer of 2003, two students, Peter Fleischut and Scott Haas, completed an internship in the Department. Their projects, examining several topics in medical education and health policy, resulted in two national presentations and two peer reviewed publications.

The Department also was asked to host several short programs this year. Medical directors attended a presentation of the Florida Healthy State Program. Outcomes researchers met to hear Dr. Mark Leavitt, the medical director of HIMSS, discuss the electronic health record. Clinicians presented information regarding the use of neurotoxins for migraine therapy in a managed care setting. Clinicians heard national thought leaders

address the issues surrounding the appropriate use of antibiotics.

In addition to overseeing the publications of the Department, which are addressed later in this report, the education team is responsible for preparing manuscripts. Supplements, newsletters, monographs, and journal articles become enduring materials for the proceedings of key meetings (The Health of Healthcare, McKesson Executive Summit, *Disease Management*, Winter 2003), clinical discussions of new treatments (Clinical Issue Brief, August 2004), and presentations of national health policy issues (ALLHAT in Context – *P&T*, September 2004). The Department has three medical writers who regularly attend local, regional, and national meetings to keep up to date and report on important issues and trends.

The Department hosted a meeting for Senior Officers of TJU with Elizabeth Fowler, JD, PhD, Chief Minority Counsel for the Democratic Staff of the Health and Entitlement U.S. Senate Finance Committee. Dr. Fowler visited the Jefferson Medical College campus in August and met with the leadership of Thomas Jefferson University Hospital and Jefferson Medical College. Later in the afternoon, JMC faculty and staff were invited to hear Dr. Fowler address national healthcare issues. A similar meeting was held with Trent Haywood, MD, JD, Acting Director, Quality Measurement and Health Assessment Group and Sheila Roman, MD, MPH, Senior Medical Officer, Centers for Medicare and Medicaid Services. These orchestrated policy visits provide senior leaders at TJU with a “window on Washington, D.C.”

The Master of Science Program in Public Health

During this past academic year, the Chair was appointed by Dr. James Keen, Dean of the College of Graduate Studies, as the co-director of the Master of Science Program in Public Health (MSPH). The Chair shares these responsibilities with Dr. Richard Wender, Alumni Professor and Chair of the Department of Family Medicine. The MSPH is a 40 credit program designed to meet the needs of working professionals. A thesis and field project are required. Currently, 38 students from a variety of backgrounds are enrolled. Jennifer Lofland, PharmD, PhD, a Health Policy faculty member, serves as the program manager for curriculum development.

The co-directors created an MSPH Steering Committee and an external Advisory Group. The Steering Committee meets monthly and is chaired by the co-directors. The Steering Committee provides overall strategic guidance for the MSPH program and is responsible for seeking formal national accreditation, organizing and continuously updating the curriculum, and interfacing with the large number of community-based clerkship sites for students. The Advisory Group is composed of more than three dozen local leaders who volunteer their time in support of the field projects for students.

In addition to these MSPH program administration activities, the Department also has responsibility for teaching three courses in the College of Graduate Studies. GC515, "Quality Measurement and Outcomes Analysis in Health Care," was taught by Neil Goldfarb and David Nash in the fall of 2003 for the third year in a row. GC650, formerly Pharmacoeconomics, was revamped in the spring of 2004 as "Economic Evaluation of Health Care Technologies" and taught by Laura Pizzi and Neil Goldfarb.

A new course, PH706, "Health Services Research Methodology," was introduced in the spring of 2004, under the leadership of Jennifer Lofland, with individual sessions taught by many members of the Department's research staff (and other guest faculty). All three courses received excellent student evaluations and will be offered again in the coming year.

Scholarly Publishing

The Department completed its fifth full year as editor (and CE provider) of *P&T*, a nationally recognized peer-reviewed journal concerned with all aspects of pharmaceutical use and care. *P&T* has a national monthly circulation of nearly 60,000. The Editorial Board of the journal was continuously updated, bringing in persons from the pharmacoeconomic research world as well as from disease management firms. The Chair continues to write a monthly editorial for *P&T*. These editorials are often reprinted elsewhere and garner a nationwide email response on a regular basis. In addition, two special issues of *P&T* were edited by the Chair. These included an issue devoted to "Progress in the Treatment of Chronic Renal Failure" and a summary of the annual McKesson Corporation Senior Executive Forum in Healthcare. The Department is an approved provider of Continuing Pharmaceutical Education (CPE) and confers CPE credit for appropriate articles. The Chair

is also on the Board of Directors of the P&T Society, an organization dedicated to the pursuit of global quality in pharmaceutical care. The Society held its fourth annual meeting in May 2004 in Washington, D.C., drawing nearly 200 attendees from across the United States. The Society now boasts a membership in excess of 3,000.

The Department also continued its editorial directorship for *Disease Management*, the only peer-reviewed journal in the disease management field. The journal received peer recognition in 2002 by being accepted into MEDLINE and Index Medicus. The Editorial Board now consists of more than 65 persons from throughout the United States in such fields as managed care, the pharmaceutical industry, the disease management industry, epidemiology, and public health. *Disease Management* is published quarterly and reaches a paid national circulation of over 1,200. *Disease Management* is the official journal for the Disease Management Association of America (DMAA), the leading national organization concerned with the public policy issues in disease management. The Chair is a member of the Board of Directors of the DMAA. *Disease Management* has evolved to be the gold standard for research in this burgeoning field.

In addition to *P&T* and *Disease Management*, this past academic year the Department also became the editorial home for a new national publication. *Biotechnology Healthcare* is focused on the socioeconomic and political issues in the burgeoning field of biotechnology with an emphasis on the human genome. It has an inaugural circulation of 35,000 persons across the nation and is currently distributed quarterly. A 70-person national Editorial Board was assembled by the Department, and these individuals represent leaders from every sector within the biotechnology arena including bioethics, law, the basic sciences, public policy and the pharmaceutical industry.

At the end of academic year 2003-2004, the Department signed an important agreement as the new editorial home for the 20-year-old peer-reviewed journal entitled, *The American Journal of Medical Quality (AJMQ)*, published under the aegis of the American College of Medical Quality headquartered in Bethesda, MD. It is anticipated that the Department will completely restructure the *AJMQ* for the 21st century. As the national conversation regarding the measurement and improvement of healthcare quality and patient safety evolves, it

is clear that *AJMQ* is poised to play a leadership role.

Taken together, then, the Department's commitment to scholarly publishing includes *P&T*, *Disease Management*, *Biotechnology Healthcare* and *AJMQ*. These titles mirror the principal research and education missions of the Department and provide an opportunity for continued national leadership in these critical areas of inquiry.

Scholarly publication in the Department is also focused on edited multi-authored texts. The book, *Connecting with the New Healthcare Consumer: Defining Your Strategy*, (Aspen Publishers 2000) continues to be a best seller in the field. The book has broad appeal to many sectors of the healthcare economy as well as individual consumers. During this past academic year, the Department signed two new book contracts with Jones and Bartlett, a respected medical publisher. The two new texts include one focused on quality improvement and patient safety, while the other is focused on economic evaluation in healthcare. A large number of contributors from around the nation have readily agreed to participate in these new ventures with the Department. It is anticipated that these two texts will serve as the nexus for a planned national curriculum for programs in public health.

The Jefferson Health System - JMC Health Policy Newsletter is now in its thirteenth year of publication. This newsletter serves as an important part of the TJU commitment to disseminate information on health policy. The newsletter is sent on a complimentary basis to all physicians and senior administrators throughout the JHS and is delivered quarterly with the *Jefferson Alumni Bulletin* from the Alumni Office. In addition, the newsletter has more than 21,000 subscribers throughout the world and has been distributed at dozens of national medical meetings. Editorials from the newsletter are often reprinted in other publications. "Letters to the Editor" indicate widespread readership of the newsletter especially among JMC alumni. Once again, the Department would gratefully like to acknowledge the support of Max Koppel, MD, MBA, MPH, JMC '57, who has generously continued to provide additional resources to help defray the cost of the newsletter's publication.

Other Educational Activities

The Department continues to serve as the training site for outcomes research fellowships sponsored by Jans-

sen Pharmaceutica and GlaxoSmithKline. This collaboration has resulted in numerous published studies and posters for presentation at national meetings. In May of 2004, the Chair hosted the fourth meeting of the National Fellowship Advisory Council of former fellows, now numbering more than 28, who met in Washington, D.C. The National Fellowship Advisory Council provides overall strategic direction for the fellowship program. Alumni of the fellowship program are often a source of research support for the Department. In the spring of 2004, GlaxoSmithKline also asked the Department to inaugurate a physician fellowship in outcomes research, beginning in July of 2004.

The Chair continues to serve as a member of the Robert Wood Johnson (RWJ)-sponsored Partnerships for Quality Education National Advisory Committee. This committee with members from the AHIP, the NCQA, and other national bodies continues to provide oversight to the multi-year, \$12 million RWJ-funded program.

It is widely acknowledged that physician training in management skills must improve. Indeed, a growing body of literature specific to the physician manager is available and is actively tracked and contributed to by the Department.

The Chair also serves as a principal advisor to the Tufts Health Care Institute (THCI) in Boston, MA.

The Department continued to conduct the Health Policy Forum, now in its fourteenth year. The Forum has become a fixture in the scholarly life of the University. It meets on the second Wednesday morning of every month (except August) and provides an opportunity for all Jeffersonians and area professionals interested in health policy to congregate and share their research experiences. This past year, the Department sponsored such guests as the Director of the Office of Research, Development and Information at CMS and the Chief Executive Officer of the College of Physicians of Philadelphia. The Department received a second prestigious Pfizer, Inc. Mini-Medical School grant for further support of the Health Policy Forum. Regular

attendees of the Forum include faculty, residents, policy analysts, JMC students and alumni, and senior officers of TJU. The Forum is certified to confer CME and ACPE credits.

It is widely acknowledged that physician training in management skills must improve. Indeed, a growing body of literature specific to the physician manager is available and is actively tracked and contributed to by the Department. Currently nine JMC students are enrolled in the unique five-year MD/MBA training program with Widener University in Chester, PA. This academic year saw the graduation of the fifth cohort of students from the combined degree program. Not surprisingly, the JMC MD/MBA students have proven to be academic standouts within both the undergraduate medical and graduate business curricula. The students, faculty, and administrators responsible for directing this program meet twice during the academic year to review progress and make plans for future enrollees. The program served as host for the Second National Annual MD-MBA Program Meeting in April 2004. Representatives from dozens of programs around the nation convened on the Jefferson campus for a day and a half of plenary presentations, workshops, research reports and a strategic planning session for the future. This meeting received partial financial support from the Office of the Dean.

In addition to the MD/MBA training program, the Department sponsors several scholars. This past academic year, the Department served as a site for the nationally prestigious Centers for Medicare and Medicaid Services (CMS) Health Policy Scholars Program. Richard Stefanacci, DO, MGH, MBA, CMD, one of five national scholars, completed his experience with the Department in June 2004. He participated directly in work concerning the creation and passage of the Medicare Modernization Act of 2004 and briefed the faculty of the Department on several occasions.

The Department continued to offer innovative curricular material including core courses and electives for JMC students. For the tenth consecutive year, "An Introduction to the Health Care System" was taught to freshmen by Daniel Z. Louis, MS, Managing Director of the Center for Research in Medical Education and Health Care (CRMEHC), and the Chair as part of the JMC Medical Practice in the 21st Century course. Based on course evaluations, these 15 contact hours

proved to be extremely successful. Topics, as in previous years, included health care financing, organization of health services, and the varying structures of managed care systems.

In March of the JMC senior year, the Chair also conducts a one-month graduate-style elective in health policy. This year students read *From Chaos to Care* by David Lawrence and *Managing Quality of Care in a Cost Focused Environment* co-edited by the Chair. These two books were critically reviewed by students with the Chair's guidance. The Chair also continues to serve as the faculty advisor for the JMC student club Physicians of Tomorrow.

Other innovative curricular material included the further refinement of the American College of Physician Executives (Tampa, FL) sponsored Web-based course titled, "Interact." The Chair produced and filmed an updated two-CD course titled, "The Three Faces of Quality," for physician executives throughout the United States. It continues to be offered eight times per year in an asynchronous fashion through a secure Web site with streaming video and simultaneous full-printed text of the lectures. The online classroom experience is facilitated by the Chair and two additional nationally prominent faculty members. Comprehensive surveys indicate that this course is very well received. The Chair also completed four new online CME approved lectures for the Graduate Education Foundation in Philadelphia. The lectures included material focused on quality measurement and improvement.

The Department continued to have an outstanding relationship with the Office of Continuing Medical Education. The Department continues to provide the second highest grossing CME activity within the JHS. This year the Chair continued to support the innovative Jefferson Industry Advisory Council (JIAC). The JIAC Steering Committee met throughout the academic year to plan programs bringing dozens of pharmaceutical company executives on campus to explore ways to enhance collaboration between the Jefferson academic community and industry. The Chair has served as a voting member of the JMC-CME Committee for the last eight years. The Department was successfully reaccredited to provide CPE credits through the American Council on Pharmaceutical Education.

Research

The Department's research program covers a wide range of topics and methodologies. At any one time, an average of 25 active projects are being conducted by the Department's research staff, under the direction of Mr. Neil Goldfarb, Director of Research, and Laura Pizzi, PharmD, MPH, Associate Director of Research. In the 2003-2004 academic year, active projects had direct cost budgets summing to \$2.3 million. The project funding profile during this time was approximately 15% government grants, 50% pharmaceutical industry-sponsored research, 10% foundation grants, and 25% other sources (biotech industry, managed care and insurance, etc.). With the conferring of departmental status, efforts are now being made to convert senior research staff (six doctorally prepared "Project Directors" in the Department) to faculty positions. Creating a cadre of new investigators should further strengthen the Department's ability to secure research funding, particularly from foundation and government sources.

The Department has always sought to serve as a research partner and support for other investigators within the Jefferson community. In the 2003-2004 academic year, Department research staff worked on projects and proposals with faculty and research staff from Endocrinology, Infectious Disease, General Internal Medicine, Family Medicine, Pulmonology, Psychiatry, Gastroenterology, Radiology, Emergency Medicine, and Cardiology. A summary of projects conducted by the Department of Health Policy in the 2003-2004 academic year is provided below:

Disease Management

- Policy analysis and manuscript preparation examining Pfizer's approach to community health management in six regional demonstration projects
- Environmental scan and policy analysis for the current state of mental health disease management and future trends and opportunities (collaboration with Department of Psychiatry)
- National survey of managed care medical directors regarding asthma care management approaches and challenges
- Evaluation of predictive modeling methods used in a national disease management program

- Development and validity testing of a survey tool to assess consumer satisfaction with diabetes disease management programs

- Literature review summarizing barriers to early use of insulin in the management of Type II diabetes (in collaboration with Division of Endocrinology)

Pharmaceutical Policy

- Examination of clinical properties of commonly used drugs for seniors, and policy analysis examining the need for less restrictive formularies for the elderly population
- Policy analysis examining the arguments for not restricting access to atypical antipsychotics, and identifying alternative methods for ensuring appropriate use
- Development of a predictive model for pain medication utilization in a hospice population
- Policy analysis examining the impact of restrictive formularies and other drug utilization management tools on elderly consumers

Measurement of Health Outcomes

- Consulting services for measurement of the outcomes of urinary incontinence
- Consulting services for measurement of outcomes of residential and social support programs for seniors in Philadelphia
- Evaluation of the impact of an interactive voice recognition (IVR) intervention on preventive care behaviors for enrollees in a managed care plan
- Validation of a migraine outcomes measurement tool in a managed care plan's population of migraineurs
- Development of a catalog of health outcome rating scales used in pharmaceutical clinical trials
- Investigation of alternative approaches to measuring patient reported outcomes and utilities for patients with ovarian cancer
- Measurement of health outcomes (general well-being, sleep, and workplace productivity) for a population with inflammatory bowel disease (IBD)

(in collaboration with Division of Gastroenterology)

Economic Evaluation

- Examination of the costs of complicated skin and intra-abdominal infections treated in the inpatient setting (collaboration with the Division of Infectious Disease)
- Identification of costs associated with the occurrence of heparin-induced thrombocytopenia (collaboration with the Division of General Internal Medicine)
- Identification of prevalence of and costs associated with post-operative ileus for patients undergoing hemicolectomy and hysterectomy
- Economic analysis of the role of chromium picolinate and biotin in the management of Type II diabetes

Other Evaluations of Biotechnology

- Examination of the role of B-type Natriuretic Peptide (BNP) in identifying early stage heart failure in a primary care population (collaboration with the Department of Family Medicine)
- Economic analysis of wireless capsule endoscopy in comparison with current diagnostic tests for the work-up of Crohn's Disease

The Role of Employers in Improving Quality and Cost-Effectiveness

- Case studies of 18 value-based purchasing pioneers, in order to identify strategies for overcoming barriers to value purchasing
- National survey of employers regarding interest and activity in value-based purchasing
- Development of a national training program, "The College for Advanced Management of Health Benefits," to better engage employers in the quality arena (collaboration with the National Business Coalition on Health and the HealthCare21 Business Coalition)
- Literature review examining the impact of pharmacotherapy on direct medical costs and indirect costs (productivity) from the perspective of employers

Other Policy Related Research Activities

- Consulting services to the Pennsylvania Bureau of Managed Care Organizations, on improving access to care for members with physical disabilities
- Evaluation of a program to screen minority populations for diabetes (collaboration with Albert Einstein Healthcare System)
- Evaluation of the impact of a state-wide ethics training program for long-term care facilities in New Jersey (collaboration with ElderCare Ethics Associates)

Quality in Ambulatory Care

In addition to these research projects, the Department supports the performance measurement and improvement activities of Jefferson University Physicians (JUP). In 2003, the Chair was asked to Chair JUP's Clinical Care Committee (CCC), which oversees quality for the JUP practices. With financial support from JUP, a full-time quality review nurse and a half-time quality analyst were recruited to staff the CCC work; the Chair and the Department's Director of Research agreed to provide in-kind support for the JUP efforts.

Goals for the first year include assisting all JUP departments in launching at least one performance measurement activity and designing and conducting one inter-departmental performance improvement initiative. With the hiring of the support staff in December of 2003, this work got underway. As of the end of the 2003-2004 academic year, 10 JUP departments were engaged in at least one measurement activity, and the remaining departments were being scheduled for kick-off meetings. For the inter-departmental measurement project, controlling high blood pressure was selected. Chart reviews were conducted in the Family Medicine and General Internal Medicine practices, which identified several opportunities for improvement. Performance improvement plans are now being designed with input from the involved clinicians and will be implemented in September 2004.

The Department also is collaborating with the University HealthSystem Consortium (UHC) on its group practice quality improvement agenda. With the Department's guidance, and continued collaboration from the CCC, Jefferson is poised to be a national leader in the measurement of ambulatory care performance.

The Department continued to enjoy an outstanding scientific relationship with the International Society for Pharmacoeconomics and Outcomes Research (ISPOR). The Department was again the only medical school-based research center to exhibit at the ISPOR national meeting for the ninth consecutive year, displaying all of its research studies and analyses. The ISPOR meeting serves as the backdrop for an annual dinner meeting of the aforementioned National Fellowship Advisory Council. This year more than two dozen persons attended the celebration. Poster and podium presentations were conducted by current Department fellows and faculty at the ISPOR meeting.

The Department continues to maintain its library on health policy and management. This has been upgraded regularly and is available to all members of the Jefferson community.

Consulting Services

Through service as a data, analytic, and education resource, the Department provides value-added health care consulting to JMC and TJUH and, to some extent, the JHS. The Chair serves as a founding member of the Quality Council chaired by Stanton N. Smullens, MD, the CMO of JHS.

Other aspects of the consulting mission are expressed through the Chair's service on the hospital's Pharmacy and Therapeutics Committee (a position he has held for 14 years) and on the JHS Pharmacy Task Force. In addition, he chairs the Quality Medication Subcommittee of the P&T Committee. The Chair also serves on the TJUH Clinical Performance Improvement Committee. He was also appointed to the TJUH PEACE Committee (Pharmacoeconomics and Cost Effectiveness). Finally, the Chair was named to the Albert Einstein Health System Urban Health Policy Institute Advisory Board.

This past year, the Chair continued his service as the Chairman of the Jefferson University Physician's (JUP) Clinical Care Committee (CCC) as previously noted. In addition, the Chair and Neil Goldfarb, co-mentored a group of Wharton graduate students who surveyed the membership of the University HealthSystem Consortium (UHC) with regard to their faculty practice outpatient quality measurement systems. The results of this study were presented by the Chair at the Annual UHC Medical Leadership Meeting in Ft. Lauderdale, FL, and the paper has been submitted for publication.

On a statewide level, the Chair continues as the Chairman of the Technical Advisory Group (TAG) of the Pennsylvania Health Care Cost Containment Council (PHC4). The PHC4 has continued to publish statewide outcomes reports on coronary artery bypass graft surgery, the care of persons with diabetes mellitus, and the quality of care in HMOs throughout Pennsylvania. Several front-page *Philadelphia Inquirer* and *Business Journal* stories have resulted from the efforts of PHC4 and the TAG. Once again, the Chair was featured in the 2003 annual report of the PHC4.

National Health Policy Issues

The Department has greatly increased its participation in the debate surrounding quality measurement and management at the national level. This was achieved, in part, by the Chair's personal involvement with numerous professional societies in the following capacities:

- Continued membership (since 1995) on the Advisory Council on Performance Measurement (ACOPM) of the Joint Commission on Accreditation of Health Care Organizations (JCAHO), which oversees the national ORYX measurement initiative.
- Eighth year of membership on the Board of Trustees of FACCT. FACCT has continued its mission to bring consumer-focused measurement tools to bear on the health care system and has broadened its appeal via the Internet.
- Continued tenth year as Chairman of the IMS (Plymouth Meeting, PA) sponsored National Disease Therapeutic Index (NDTI). This is an internationally regarded, physician-specific, pharmacy-tracking program.
- Membership in the National Quality Forum (NQF) and the Council on Research and Quality Improvement.
- Fourteenth year chairing the Physicians' Tract of the National Managed Health Care Congress and Chairman of the National Disease Management Congress. These two meetings together attract more than 6,000 persons from across the nation.
- Continued membership on the Board of Trustees of Catholic Health Care Partners (CHP), the tenth largest non-profit integrated delivery system in the country, headquartered in Cincinnati, OH. The

Chair continued as the Chairman of the CHP Board Committee on Quality. He is regularly invited to address quality-related issues for many of the constituent institutions of the CHP, and he gave the plenary address at the Annual Governance Retreat in Asheville, NC.

- Membership on the University of Oregon RWJ-sponsored project on improving the Consumer Assessment of Health Plan Survey tools (CAHPS).
- The Chair was appointed to the Medical Leadership Council (MLC) of the UHC and the MLC Executive Committee – a key group of physicians who help to set quality improvement strategies for the UHC.
- The Chair was named for a second year as a judge for the National John M. Eisenberg Patient Safety Award presented by the JCAHO and the NQF.

Through membership in activities sponsored by such groups as the JCAHO, FACCT, NDTI, NCQA, NQF, CHP, and the UHC, the Department is at the center of major national programs involved in measuring and improving health care quality.

Finally, the tenth annual DHP Summer Retreat was held on July 16, 2004, with a special focus on the Medicare Modernization Act. Nationally prominent individuals from AARP, the Federation of American Hospitals and the pharmaceutical industry participated in the full day program. The retreat attracted nearly 150 persons representing more than 50 different regional organizations. The Summer Retreat is offered as an educational service to the scores of research clients and professional colleagues in the Delaware Valley.

Other Aspects of Program Content

Administering Endowed Activities

The Department continues to administer the annual “Raymond C. Grandon Health Policy Lectureship.” Dr. Jack Rowe, President and Chairman of Aetna, delivered the thirteenth lectureship this year. His focus was on the role of academic medical centers and managed care companies in pursuing quality. The lecture garnered a capacity crowd in DePalma Auditorium and resulted in a full page article in the *Philadelphia Business Journal*. The Department also initiated and has awarded the fourteenth annual Leon Peris Memorial Medical Records

Prize to two graduating Jefferson senior residents with the most outstanding performance for their timely and accurate completion of medical records. This year, the Department also presented the fifth annual Department “Best Student Award” to Mr. Peter Fleischut, JMC ’07 and Mr. Scott Haas, JMC ’07.

Private Sector Activities

The Chair maintained a large number of consultancies with firms in the private sector, especially those concerned with E-Health and E-Commerce. For example, the Department completed the fourth year of a strategic planning project with the GE Medical Systems. The Chair also leads the GE-MedicaLogic Quality Improvement Consortium (MQIC), a national group of 1,000 physician electronic medical record users.

In addition, the Chair consulted with firms such as Future Health, MedCases and GetWell Network. He was named to the Board of Directors of the Itrax Corporation (DMX: Amex), a disease management firm, and he also chairs the Board Nominating Committee. These private sector initiatives provide important additional sources of external support as well as relevant databases for the research mission of the Department. Finally, the Department continued as a part of the American Healthways’ (AMHWS) National Outcomes Verification program. AMHWS is the largest publicly held disease management company in the country. All relevant conflict of interest forms and confidentiality statements are on file with the Office of the University Counsel.

Recent Publications

The Department’s publications have appeared in numerous peer-reviewed journals, newspapers, magazines, videotapes, audiotapes, and CDs. These are all available for review in the Department. The Department Web site at <http://www.jefferson.edu/DHP> is continually updated and receives nearly 1,000 hits per month. The Chair continued to serve on the editorial boards of nine peer-reviewed publications and as the Editor-in-Chief of *P&T Magazine* and *Disease Management, Biotechnology Healthcare* and *The American Journal of Medical Quality*.

In addition, papers were delivered at more than 10 scientific meetings, and presentations were made at more than 40 national forums. The work of the staff has

Office of Scientific Affairs

The Office of Scientific Affairs provides administrative infrastructure and support for the following research programs and Committees:

- Division of Human Subjects Protection (Institutional Review Boards)
- Research Biosafety Program
- Institutional Biosafety Committee
- Select Agents Program
- Volunteer Program
- Special Programs for Medical Student Summer Research
- Institutional Research Committee

Division of Human Subjects Protection (Institutional Review Boards)

Thomas Jefferson University has four IRBs approved under its Federalwide Assurance from the Office of Human Research Protections of DHHS. 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.

The IRBs review research protocols, consent forms, adverse events, amendments/revisions to protocols, advertisements for recruiting research subjects, and other matters pertaining to the conduct 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, as the volume of applications and specific reviews of new and continuing protocols, amendments to protocols and adverse events continues to rise, demands significant effort and time from the

faculty who constitute the campus IRBs, the Chairs of the Boards, and the Director and his administrative staff in the Office of Scientific Affairs.

This report encompasses the time period from July 2003 through June 2004. During this period, the three on-campus IRBs held a total of 64 regular meetings, and reviewed a total of 704 new studies (full review, expedited, exempt, disapproved). The DHSP staff handled 2,728 transactions. There are 1,069 active studies on campus. The TJUH/Methodist Hospital Division IRB, that reviews predominantly Phase I drug studies for Wyeth, held 14 meetings and reviewed 15 new submissions and a total of 69 transactions. Phase 1 trials generally last for only a few weeks.

The IRB in conjunction with the Institutional Biosafety Committee reviewed and approved two Gene Therapy studies.

This represents a large and complex human subjects protection program 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 over 120 conscientious and very dedicated IRB members and administrative staff without whom this quality human subjects protection program would not be possible.

During the year, there were several changes in the administrative staff of the DHSP. Amy Marshall was appointed Administrative Secretary to the Smith IRB. Danielle Pisacano, Data Entry Coordinator, was promoted to Administrative Secretary to the Brock IRB. Danielle's position as Data Entry Coordinator was assumed by a new hire, Cheryl Taylor-Vaughan. Kathleen Avender, long time Administrative Assistant to the Director, DHSP, has taken on the additional responsibility of Education Coordinator.

During the past year the Division of Human Subjects Protection held investigations of nine investigators for alleged noncompliance with federal human subjects regulations; all were found to have violated federal human subjects regulations. With the implementation of the full-time quality improvement program, a number of instances of minor violations were found that required corrective action by the Principal Investigator during the QI visits to study sites. It was determined that most of the violations were the result of a lack of education with regard to federal regulations pertaining to human

subjects research, and that a rigorous course on human subjects protection in research for study coordinators was necessary. Such a course has been implemented.

In September of 2002, NIH awarded the DHSP a one-year \$150,000 Human Subjects Research Enhancements Program grant to: 1) create and implement a campus-wide, real-time, secure, Internet accessible management system for all clinical trials that tracks progress of the trial, status of patient accrual, adverse events, faculty participation, and other pertinent information from the initial proposal through final completion; 2) establish a process of oversight of human subjects research activities and conduct routine quality improvement site visits at the time of continuing review of current protocols and in response to injuries or complaints from research subjects, regulatory agents or sponsors. These aims were accomplished.

TJU was awarded a second one-year \$150,000 HSREP grant by NIH to implement the following: 1) An outreach function by extending the computerized clinical trials internet-accessible management system for clinical trials to two community hospitals of the Jefferson Cancer Network, one urban (Methodist) and the other rural (Ephrata); 2) a rigorous, didactic, required, certification course on all aspects of human subjects protection and good clinical practice for research coordinators conducting human subjects research.

The Division of Human Subjects Protection (DHSP) is currently teaching a required course entitled, "Clinical Research Coordinator Training Course: 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.

Any individual currently holding one of the above-cited positions is required to take and pass the course during 2004 in order to continue to hold the position.

There is a bound syllabus of the lectures, as well as all collateral course materials. The text for the course is the new revised *DHSP Human Subjects in Research Training Manual*. A certifying examination is required. The examination is online at the DHSP Web site. The exam is graded automatically, and a passing result is recorded with DHSP. The individual passing the exam may print out a letter of certification of passage. DHSP will also issue a formal certificate. The exam may only

be taken twice. If passage is not achieved, the individual will not be permitted to continue to perform any duties involving human subjects research until such time as the course is retaken and passed.

The DHSP has a Quality Improvement/Education Program whose mission 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 goals are to: 1) 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 hopes to encourage a culture of compliance within the institution and a partnership between the study personnel and the DHSP.

During the year the Quality Improvement Team conducted 14 quality improvement/education site visits.

The DHSP has a program for the certification of individuals participating in research involving human sub-

To date, 2,250 individuals participating in the conduct of human subjects research have completed our Web-based self-study training program and have passed the certifying examination.

jects. The number of investigators and key personnel who have taken our certification program in order to conduct human subject research continues to expand. To date, 2,250 individuals participating in the conduct of human subjects research have completed our Web-based self-study training program and have passed the certifying examination. The original certification was for three years. Individuals certified in 2000-2001 are required to be recertified during 2004 for an additional three years. Consequently, DHSP wrote an updated Training Manual and a new certifying examination both of which can be reviewed and taken online at the DHSP Web site.

The Director of DHSP presented talks on the DHSP and the IRB and human subjects protection to the departmental business managers, the PharmD residents in the Department of Health Policy and to new faculty at the Faculty Orientation Program. In addition, he presented a lecture in the CGS Master's Program entitled, "Clinical and Regulatory Issues in Gene Therapy." The Executive Secretary, IRBs, talked to the Family Medicine

and Department of Medicine residents about human subjects protection and the IRB. He also presented a lecture on human subjects protection in the CGS Graduate Master's Program in Pharmacology course entitled, "Regulatory Issues in Human Subjects Protection."

In addition to the one-time three-year certification of human subject training for individuals conducting research involving human subjects, such individuals must also take the annual update about human subjects protection. To this end, DHSP also wrote a new online annual training program that consists of a review of the Belmont Report which lays out the guiding principles for human subjects protection upon which the federal regulations referred to as the "Common Rule" are based.

Research Biosafety Program

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

The Institutional Biosafety Officer (BSO, a member of the IBC), conducts laboratory inspections, certifies investigators for work in the 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 OSA and obtain a permission slip for the specific immunization required to be administered by University Health Services.

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

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 Institutional Biosafety Committee (IBC) whose responsibilities need not be restricted to recombinant

DNA. If the institution is engaged in recombinant DNA research requiring biosafety level-3 (BL-3) containment, it must appoint a Biological Safety Officer (BSO) who shall be a member of the IBC.

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 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 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.

- Inspecting, initially and periodically, 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.
- Reviewing animal protocols submitted to IACUC for biosafety issues.
- Reviewing protocols submitted to the Institutional Review Board involving gene therapy, for biosafety issues.
- Serving as a resource and guidance source for investigators who are designing their biosafety plans.

The IBC comprises 17 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 32 new and revised research proposals. The review of the above protocols resulted in 23 inspections by the Biosafety Officer to certify laboratories for work at the BL-2 containment level or higher. Laboratories functioning at the BL-2/BL-3 level or higher are reinspected annually.

During this year, one new gene therapy protocol was reviewed and approved by an IBC/IRB ad hoc Committee and subsequently approved by the convened IBC and IRB. The IBC also approved the continuation of a previously approved gene therapy protocol.

Because of the growing concern about the biohazards of using lentiviruses as vectors for the transfer of genetic

information, the IBC developed a policy on the use of lentivirus in research. Under this Policy, training of all researchers planning to use lentiviruses in their research is required. The BSO carries out this training on a case-by-case basis. Research using lentiviral vectors must be conducted under BL-2 containment conditions with BL-3 practices. Individuals required to work under these conditions must take the BL-3 training and pass the certifying examination before receiving approval to work with lentiviral vectors. An outline for working with lentiviruses was developed and approved by the IBC to be provided to the investigators. The lentivirus policy as well as a standard operating procedure for working under BL-2 containment conditions with BL-3 practices was placed on the IBC Web site.

The IBC drafted and approved a set of standard operating procedures for conducting research involving select agents and biological toxins.

The IBC developed a new more comprehensive OSA-11 University internal form for submission of studies to the IBC.

An attempt by a lab technician to ship a package by air containing an infectious substance for which the paperwork was improperly filled out, resulted in the package being returned twice. The package was finally accepted for shipment; however, the FAA became involved and contacted the BSO. It was discovered that the recently hired lab tech had not taken the IATA specific training for shipping infectious substances. The employee was trained immediately by the BSO. All training records were reviewed by the FAA and were found to be satisfactory. The FAA imposed no fine.

Volunteers in Research Laboratories

Any individual working in the research laboratories of the Medical College whose salary is not paid through the University is required to register with OSA and have their project reviewed by the IBC to determine whether they will be working in a laboratory conducting research with a biohazardous agent. This includes visiting scholars (both domestic and international), post-doctoral fellows, and college or high school students. These individuals must be registered as working in a laboratory of the University so they are covered for risk management purposes. The International Office screens and sends international volunteers to OSA where they are registered. All individuals, once registered, are sent to University Health Services and Security for their ID card. Over this past year 88 individuals have been registered through OSA.

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 Dean for Scientific Affairs) and the Alternate RO (University Biosafety Officer). An ad hoc committee of IBC members developed safety and emergency response. Special physical security plans involving new construction to implement double key card access to and video monitoring of the area where laboratories where work with select agents is being carried out was implemented in the Division of Infectious Diseases. The CDC conducted a site visit to the facility on April 21, 2004. With the exception of a few minor areas of operation that needed more comprehensive written descriptions, the select agent program was found to be satisfactory.

Special Programs for Medical Student Summer Research

The Director of Special Programs, Karen Novielli MD, (Associate Dean for Faculty Affairs and Faculty Development) coordinates five medical student summer research programs (Basic Cancer, Translational Cancer, Heart, Lung and Blood, General Medicine and Computer) that provide 10-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 researcher. The primary goal of the programs 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.

Programs in Basic Cancer and Translational Cancer are funded through the National Cancer Institute of the National Institutes of Health. In the Basic Cancer Program,

eight positions were filled by first year medical students, five by prematriculant students and two by undergraduate minority college students and 10 positions in the Translational Cancer Program were filled by first year

The Translational Cancer and Heart, Lung and Blood programs were recently approved for five years of additional funding by the National Institutes of Health.

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. The Translational Cancer and Heart, Lung and Blood programs were recently approved for five years of additional funding by the National Institutes of Health. In addition, a Medical Student Short Term Training Grant has been submitted to the National Institute of Diabetes, Digestive and Kidney Disease of the National Institutes of Health. This grant, if approved for funding, will support research training for six additional first-year medical students. Each of these programs has a Thomas Jefferson University faculty member serving as the Principle Investigator.

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

There has been a significant increase in student applications for each of these programs. The total number of student applicants has increased from 63 applicants to 113. Increased advertising of the programs and a timely information session for first-year medical students have helped to increase student interest. Also, the application process has been computerized, streamlining the process for students. The number of applications received this year continues to indicate a high level of interest in these programs.

Institutional Research Committee

The principal responsibility of the Committee on Research is to provide assistance to the Dean of Jefferson Medical College regarding the formulation for research policy and to encourage further development of the

research capabilities of the College. The Committee may be called upon to review all research programs and to assist the Office of Scientific Affairs to assure that research activities at Jefferson Medical College are carried out in compliance with governmental and institutional rules and regulations. The Committee distributes information about sources of research funds and makes recommendations concerning disbursement of funds for the Jefferson Intramural Research Awards which is generously supplied through the Office of the Dean. The members of the Committee also devote a considerable amount of time serving on the various standing subcommittees, as well as ad hoc committees formed on an as-needed basis. These subcommittees administer the review and awarding of intramural and extramural research grants, the awarding of research prizes, the conduct of student research programs, and compliance with Thomas Jefferson University's policy on allegations of misconduct in science. The subcommittees report to the full Committee, which then forwards its recommendations to the Dean. The full Committee on Research meets monthly.

Funds for the Jefferson Intramural Research Awards (\$100,000) are generously funded through the Office of the Dean. The Pilot Research Award is entering its second year of funding. Applications for this award have significantly increased in 2003-2004. This award was established to fund innovative research by both established and young researchers who are developing new research programs. Priority is given to grants with collaborations between investigators (clinical-basic, clinical-clinical and basic-basic), but is not limited to collaborations. Research with the goal of translation to the clinic is encouraged. The objective of this grant funding (\$15,000/project) is to provide a stepping-stone to grant support by a national agency.

In addition, the Committee also oversees the Reapplication Enhancement Awards. These intramural funds are intended for faculty who have received a critique on a National Institutes of Health or other nationally funded grant application but did not ultimately receive funding. This grant provides faculty with the support necessary to conduct experiments to provide additional preliminary data resulting in an enhanced grant resubmission. This program has been very successful, and often results in a large return on a relatively modest investment by the school of \$10,000 per project. This continues to be an excellent source of interim funding for Thomas Jefferson University faculty. The Committee on Research extends its gratitude to the Dean for his continuing support for both of these programs.

The Committee on Research oversees the administrative aspects of this program through its Reapplication Enhancement Award and Pilot Research Award Subcommittees. The Committee reviews applications three times a year, with submission deadlines of May 15, September 15 and January 15.

Faculty interested in applying for these programs can obtain the necessary information from the Office of Scientific Affairs or its Web site. The guidelines that were originally established by the Committee have been reviewed through out the year and changes have been made, as appropriate, to assist researchers in the application process.

The Student and Faculty Awards Subcommittee solicits and receives nominations for several Medical College awards, and is responsible for publicizing the awards, receiving and reviewing nominations, and selecting finalists for consideration by the full Committee. These prizes include the Bodine Award (given at Sigma Xi Research Day for a student who has completed the fourth year and has shown the greatest tenacity and dedication in research), the Menduke Prize (given on Class Day to a senior who has demonstrated excellence in research), and the Volunteer Faculty Research Award (given to a junior or senior who has done excellent clinical research). Publicity about these awards results in the receipt of numerous nominations, and while the selection of a winner is often difficult, this is in fact a positive sign about the high level of both the quantity and quality of scholarly research among Jefferson Medical College students.

The Research Committee is often asked to assist the Dean's Office in the development of policies for research-related activities. For the upcoming year the Office of the Dean has requested that the Committee set up an ad hoc committee to review Thomas Jefferson University's Core Facilities to ensure that the Institution has well-functioning, state-of-the-art facilities.

The Committee continues to work closely with Gerard Berry, MD, Vice Dean for Research, who attends monthly Committee meetings as the Dean's Representative and provides critical guidance as well as an important link between the Committee and the Dean's Office. Also in attendance at meetings is Mr. John Monnier of the Office of Research Administration. The Committee reviews with Mr. Monnier, or a delegate from his office, the current status of extramural research funding in the Medical College and discusses ways in which this activity can be enhanced. This coming year the Committee looks forward to having Ms. Susan Beals,

recently appointed Director of the Office of Research Administration, attend its meetings.

The Research Committee is often called upon on an ad hoc basis to assist with a variety of research-related activities. Certain extramural research award programs permit only a limited number of faculty applications per institution, and the Committee provides internal review of applications for these programs. These programs include the Howard Hughes Research Award, Searle Scholars Program Charles E. Culpepper Scholars, Damon Runyon Cancer Research Award, W.W. Smith Foundation Awards in Heart Disease, Aids and Cancer Research, Pew Foundation Fellowship, and Burroughs Wellcome Fund. There has been a significant increase in applications for these awards in 2003-2004. This is due to the development of a more targeted approach in disseminating information regarding deadlines and guidelines for these foundation grants to the research community.

Jefferson Medical College policies and guidelines for dealing with allegations of scientific misconduct provide for the appointment by the Dean of an ad hoc

inquiry committee to review such matters as needed. These committees are composed of the Chairman of the Committee on Research as chairperson and other members of the Research Committee and the faculty at large as deemed necessary.

George F. Kalf, PhD

Director, Office of Scientific Affairs

Director, Division of Human Subjects Protection

Karen Noveilli, MD

Director, Special Programs

Gerald Grunwald, PhD

Chair, IBC

Lorraine Iacovetti, PhD

Chair, IRC

Center for Research in Medical Education &

The Center for Research in Medical Education and Health Care is involved in a wide range of educational and health services research projects for the Jefferson community and with national and international institutions.

The Jefferson longitudinal tracking and outcomes assessment system supports JMC administration and faculty, as well as U.S. and international research projects. Acknowledging the Jefferson longitudinal study in its recent accreditation report, the Middle States Commission on Higher Education noted that the Center for Research in Medical Education and Health Care

The Jefferson longitudinal tracking and outcomes assessment system supports JMC administration and faculty, as well as U.S. and international research projects.

“...continues to track data from a large number of sources before, during and after the student’s tenure at the College. Their use of this data has impacted on many components of the curriculum, the learning environment, individual student development and program planning.”

We were extremely pleased by the following commendation from the evaluation team:

“The Center for Research in Medical Education and Health Care and the Jefferson Medical College are to be commended for their academic interest in outcome data, responsiveness to faculty and department needs and the clear use of the data to modify the curriculum and teaching environment.”

Center staff played a major role in the design and implementation of the Jefferson Patient Encounter Log System (PELS), a handheld computer system used by third- and fourth-year medical students. This system enables students and faculty to review each student’s experiences in the clerkship setting in comparison with clerkship-specific targets. Another commendation from the evaluation team recognized the importance of this system, stating:

“The Center for Research in Medical Education and Health Care has been an exemplary tool for evaluating the attainment of the educational program goals and objectives and to inform curriculum evaluation and change in the Medical College. The newly implemented Patient Encounter Log (PEL) will further refine the data for determining if medical students meet their stated objectives in clinical training.”

One of the Center’s principal research projects is a continuing collaboration with the Regione Emilia-Romagna in Italy in the development of an integrated, population-based, health care utilization database including the four million residents of the region. This database is the basis for a number of ongoing studies of health care organization and financing. A Disease Staging based method for assessing the timelines of acute hospital use resulted in the publication of an atlas describing variations in appropriateness of hospital use in the region. It is being used for planning by local health care and hospital administrators. These data are also being used to identify individuals with chronic diseases, estimate cost implications, and develop risk adjustment models to assist in planning and financing at the local level. A third project involves an assessment of prescription drug co-payments on patterns of drug use and patient outcomes.

With funding from the American Board of Internal Medicine Foundation, Center staff studied medical professionalism and the impact of feedback on physician clinical performance. The Edward J. Stemmler Fund of the National Board of Medical Examiners supported studies of physician life-long learning and the relationship between performance in medical school and later professional licensure sanctions. Pfizer, Inc. continued its support of the Physician Empathy project. The four-year federally-funded national evaluation of Undergraduate Medical Education for the 21st Century Program (UME-21) was completed this year. The double-decker London-style AsthmaBus®, a joint venture with the Philadelphia Health Department, Philadelphia School District and the Philadelphia Asthma Task Force, continued to provide asthma screening and education to Philadelphia school children. New funding from the Aetna Foundation will build on these efforts to link asthma patients with high rates of absenteeism with appropriate medical and community resources.

Center faculty members continued teaching responsibilities in the Health Policy and Biostatistics modules of Medical Practice for the 21st Century and served on the curriculum committee, third-year curricular task force, and the Middle States accreditation committee. Center staff members contribute to faculty development through multiple joint publications with JMC faculty in both medical education and health services research and have been invited to present Center projects at multiple national and international scientific and professional meetings.

Highlights of Center medical education and health care projects are described below.

Medical Education

The Center's medical education activities include services to the Dean's office, academic departments and faculty, and research related to the Longitudinal Study, evaluation of educational programs, written examinations, clinical skills assessment, and ad hoc surveys.

Longitudinal Study

The Jefferson Longitudinal Study includes academic and career outcome data and is recognized as one of the most comprehensive databases of its kind. It spans all medical school classes since 1964 and house staff at the University hospital since the first intern entered in 1909. Core data for each physician include demographics, board scores, and ratings of trainees' clinical performance by program directors. Follow-up data include career outcomes from the Physicians' Professional Data files of the American Medical Association, board certification from the American Board of Medical Specialties, and periodic surveys of alumni.

Undergraduate Medical Education

Extensive data for 8,802 Jefferson medical students since 1964 comprise the backbone of the Longitudinal Tracking System. In addition to core demographic and professional data, student data include responses to entry and graduation questionnaires, records of academic performance in medical school, psychosocial attributes, and follow-up surveys throughout their professional career. This component supports the Dean's Office, academic committees, and faculty development. It has yielded over 120 peer-reviewed publications since 1976.

Accreditation by the Middle States Commission on Higher Education

The Longitudinal Study database 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. In reporting on the findings of its accreditation visit to Thomas Jefferson University in the spring of 2004, the Middle States team noted the Longitudinal Study and commended the Center for its support of the evaluation of Jefferson's educational programs.

Graduate Medical Education
The Jefferson Longitudinal Study includes academic and career outcome data and is recognized as one of the most comprehensive databases of its kind.

In addition to the Longitudinal Study of residents, Center staff members collect and manage other GME data on behalf of the Senior Associate Dean for Graduate Medical Education. Since 1998 program directors at the University hospital have submitted annual performance ratings of their residents and fellows. The residents and fellows also submit annual evaluations of the quality of their GME programs on standard forms that cover the University hospital and all affiliated sites. These data are used for internal review and for reporting to the ACGME and Residency Review Committees. The measurement properties of the annual performance rating form, which was redesigned in 2001 to address the six ACGME competencies, were described in an article published in *Academic Medicine* in June, 2004.

Measurement of Professionalism in Medicine

The American Board of Internal Medicine Foundation provided support for a systematic review of the literature on professionalism. Center researchers worked with a national panel of testing and measurement experts, including medical school faculty from throughout the country, as well as researchers at the National Board of Medical Examiners, the Accreditation Council for Graduate Medicine Education and the Association of American Medical Colleges. The team reviewed 134 articles to locate evidence on validity, reliability and errors of measurement. The reviewers also provided global evaluations of the strength of validity evidence, the practicality of each tool and the implications for future research and development. A paper has been accepted for publication in *Academic Medicine*, and a catalogue of instruments with the evaluations of the expert panel will be published in September, 2004.

Jefferson Scale of Physician Empathy

The Jefferson Scale of Physician Empathy (JSPE) was developed by our research team and enjoyed continued national and international attention in 2003-2004. We have received over 100 requests from researchers in the U.S. and abroad requesting permission to use the JSPE. Our findings of a decline in empathy in the third year of medical school (published in *Medical Education*) prompted us to undertake a longitudinal study on changes of empathy during the course of medical education (from first year of medical school to the end of the first residency year). We received a grant from Pfizer Medical Humanities Initiative, Pfizer, Inc., New York to conduct a longitudinal study of the development, stability and changes in empathy during the course of medical education. Factors that contribute to changes in empathy at different levels of medical education will be examined in this longitudinal project. Researchers in the U.S. and abroad are conducting several other studies in which the JSPE is used. Researchers in residency programs of Family Medicine and Internal Medicine at Thomas Jefferson University Hospital are undertaking studies to examine relationships between scores of the JSPE and patients' perceptions of their physician empathy, and other outcomes such as the rate of "no shows."

Jefferson Scale of Physician Lifelong Learning

Supported by a grant from the National Board of Medical Examiners (NBME) Edward J. Stemmler, M.D. Medical Education Research Fund, a project to develop a psychometrically sound instrument for measuring physicians' lifelong learning was completed in 2003-2004. Psychometric analyses of the Jefferson Scale of Physician Lifelong Learning (JSPLL) provided support for the validity and reliability of the JSPLL. Significant differences on the JSPLL scores were observed in favor of physicians who were involved in professional activities that require continuous learning (e.g., publication, research activities, training awards). The mean score on the JSPLL was significantly higher for physicians with a combined MD-PhD degree than their counterparts with MD or DO degrees. Specialists scored higher than generalist physicians. The JSPLL is supported by strong psychometric evidence and can be used as an empirical tool to study the development and correlates of physician lifelong learning.

Jefferson's Patient Encounter Log System (PELS)

The decentralization of clinical teaching networks requires a systematic way of documenting medical students' clinical and educational experiences across clerkships. In addition to being one of the LCME accreditation standards, this information is important for

assuring the quality of our clinical affiliation network, for clerkship planning, and for helping students and faculty assess individual student clinical experiences. Jefferson Medical College has long been a leader in documenting our students' clinical experiences. Beginning with the Department of Family Medicine in 1997, and then adding other core clinical clerkships, all JMC third-year students have been required to record their patient encounters using computer scanned cards. The value of these data was reported by Jefferson faculty in a paper published in the *Journal of the American Medical Association* (September 5, 2001). The PALM-based Jefferson PELS system, which replaced the manual system, was fully implemented in the 2003-2004 academic year in all core third-year clinical clerkships and in the emergency medicine fourth-year clerkship. Students and faculty can now 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. (The PELS Web site is available at Jefferson PULSE/Organizations/JMC PDA Users.)

Education in Tobacco Cessation

Center researchers began to collect evaluation data for a program developed by faculty from the Department of Medicine with support from the Pennsylvania Area Health Education Centers. Third-year medical students receive 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.

Timing of USMLE Step 2 Test Dates

Center researchers worked with the Offices of Student Affairs and Academic Affairs to determine whether the elapsed time between completion of the third-year curriculum and the test date alters a student's score on USMLE Step 2. The mean scores for students who completed the exam early in their senior year between June and September exceeded those who took the exam later in the year. This study provides valuable information that can be used to counsel students about test scheduling. The study will be presented at the Research in Medical Education Conference during the AAMC annual meeting in November 2004, and published in *Academic Medicine*.

Clinical Clerkship Review

Center staff collects systematic data from third- and fourth-year students to monitor clinical clerkships at the University and other 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.

Resident and Student Work Hours

Center researchers worked with the Senior Associate Dean for Graduate Medical Education to survey residents in order to confirm compliance with new guidelines on work hours. In a related study, Center researchers collaborated with faculty from the Departments of Surgery and Medicine to conduct local and national surveys related to the amount of time that third-year students devote to their clerkships.

Computer-administered Tests and Databases

Development in this area has been a result of close cooperation with the Department of Surgery for over a decade and the Department of Family Medicine, which went online in 2001. Center staff also provides support for the development and maintenance of test item databases in Obstetrics/Gynecology, Foundations of Clinical Medicine, Emergency Medicine, and Immunity, Infection and Disease.

Clinical Skills Assessment

Center staff worked with the Clinical Skills Center to analyze, score and set standards for students' performance on the skills assessment at the end of the third year. During 2003-2004 this involved the development of new software to edit data, report item analyses of checklists completed by standardized patients, compute subtest scores, aggregate student performance across cases and report results by email.

Test Scoring and Item Analysis Services

Medical school faculty employ a variety of testing formats (e.g., multiple choice, extended matching, uncued tests) depending on the content being assessed. Center staff provided essential support services for these testing and examination needs. Center staff scanned, key-validated, scored and analyzed 495 written examinations and evaluation questionnaires during this academic year.

Ad hoc Surveys

Center staff provided support to the faculty and administration for conducting a variety of ad hoc surveys using appropriate technology such as optical character recognition (OCR), optical mark recognition (OMR), and Web-based surveys. For the fifth consecutive year, staff worked with the Hand Rehabilitation Foundation to create and analyze evaluations of their dual symposiums for therapists and surgeons. Other examples during 2003-2004 included the annual Snapshot Survey of the student body and a survey of faculty and managers conducted by the Office of Research Administration.

Health Care

The Center's health care activities include projects related to health care organization and financing, quality and outcomes of care, education of patients with asthma, and assessment of caregiver needs.

Disease Staging

The fifth edition of *Disease Staging: Clinical Criteria* was published in 2003 (Thomson/Medstat, Ann Arbor, MI). Joseph S. Gonnella, MD is the editor and Daniel Z. Louis, MS; Marvin Vincent E. Gozum, MD; Clara A. Callahan, MD and Cathleen A. Barnes, RHIA, CCS, are associate editors of this reference which also benefited from the input of 19 members of the JMC clinical faculty. *Disease Staging* has been used in numerous health services research projects in the U.S., Italy, Japan and Portugal, as well as for medical education and quality of care analysis projects at Jefferson. *Disease Staging* is used as a part of Jefferson's Patient Encounter Log System (PELS) to assess differences in severity of the patient mix encountered by our students at our educational affiliates.

Assessment of Appropriateness of Acute Hospital Use in the Emilia-Romagna Region of Italy

In collaboration with the Regione Emilia-Romagna, a region with a population of approximately four million, the Center has developed a method to assess potentially inappropriate 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, which is based on the *Disease Staging* classification, has been applied to all hospital admissions in the region. The results of the analysis have been used by the Emilia-Romagna Region to publish an atlas which describes variation by hospital type and location. These data are also being 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.

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

The Center has begun a project in collaboration with 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.

Risk Adjustment and Population-Based Financing of Health Care

Geographically defined health districts have been established as part of the decentralization of responsibility within the Italian National Health Service. The challenge is to assure that appropriate financing is provided to meet the needs of the population of each district. Information from inpatient and outpatient hospital episodes, prescription drug files, and demographic data from the Regione Emilia-Romagna are being used to identify individuals with chronic disease and to assess the relationship between these variables and future health care costs. The resulting risk adjustment models can then be used for resource allocation, planning and evaluation activities by the region and the health districts.

Impact of the Abolition of a Cost-Sharing Drug Policy on Drug Consumption and Medical Care Utilization

Patient cost-sharing such as co-payments are used worldwide to control drug expenditures and to promote appropriate use of medications. A possible untoward effect, however, is that these initiatives also may limit access to needed medications and lead to the use of medications that are less effective or present a greater opportunity for adverse events. As a result, implementing cost sharing measures may produce short-term drug cost savings but inadvertently increase overall utilization and health care expenditures. The existence of comprehensive, linkable databases on drug and health care use in Emilia-Romagna provides an opportunity to evaluate the impact of a co-payment abolition—which occurred in Italy in January 2001—on the use and costs of select medications and medication classes and determine the effect on the rate of serious adverse events (hospitalization and mortality) associated with variations in drug use before and after the implementation of the new drug policy. (Vittorio Maio, PharmD, MS, Department of Health Policy is collaborating with Center Staff on this project.)

Clinical Benchmarking

Center staff are collaborating with physicians and management staff 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 severity of illness while measuring quality and resource use outcomes. Future work will explore how internal organizational features affect departmental performance and patient outcomes and how patterns of care have changed over time.

Feedback and Physician Performance

With support from the American Board of Internal Medicine Foundation, Center researchers completed a review of the literature between 1966 and 2003 on the impact of feedback on physicians’ clinical performance. Policy makers have long expressed concern about unexplained practice variation that is inconsistent with evidence-based professional standards and new research findings. Although the findings of previous reviews on the question of whether feedback enhances physicians’ clinical performance have been equivocal, the Center’s review provides new information about the efficacy of feedback and the issues that need to be addressed.

Multidisciplinary Team Approach to the Management of Sickle Cell Disease (SCD)

The Center is working with clinicians in the Department of Internal Medicine at JMC and Albert Einstein Medical Center to develop and evaluate a multidisciplinary approach to caring for sickle cell patients in Philadelphia. A five-year evaluation of this program has demonstrated improvements in the clinical management of the patients in the home, office, emergency room and hospital settings. Although the prevalence of SCD is relatively low compared to more common disorders such as cardiovascular disease or cancer, it is very expensive to governmental and private payers due to the high utilization of the emergency department and inpatient hospital. Little normative data exists on what the usual health care utilization is of a population of SCD patients, especially adults. This information would be of value to health care systems, governmental and private payers, and health care planners.

Evaluation of Outreach to Caregivers of the Chronically Ill

Researchers are working with WHYY, Philadelphia’s public broadcasting station, to evaluate the effectiveness of television programs to heighten awareness of

the needs of caregivers and provide opportunities for hope and healing during the caregiving process. The three half-hour television programs were evaluated using focus group methodology, which allows for an in-depth investigation of issues and themes that arose for viewers and the assessment of programming impact. Four different audiences were studied: a group of family caregivers, the general public, professional care providers (such as physicians, nurses, home health aides), and a minority group (Latino). We expect that the results of this study will yield a better understanding of caregiver concerns and needs, and further direct strategic planning for WHYY and the Caring Community Coalition in developing educational themes and outreach around these issues.

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. Its aim is to increase asthma awareness among Philadelphia schoolchildren, and to provide screening for this disease. The project is supported by a grant from Glaxo-Wellcome, and relies on a double-decker London-style bus remodeled as a moving asthma exhibit. The exhibit features a set of cartoon characters, the AsthmaBusters©. The bus was awarded in 2001 the American College of Chest Physicians Presidential Award for community service, as well as an Award from the America Academy of Architecture for most innovative exhibit. TJU has received support from the Center for Disease Control and Prevention to use the bus for mapping asthma prevalence in Philadelphia public middle schools, and for carrying out the evaluation component of the AsthmaBusters educational program. This CDC grant, one of four awarded nationwide, is being carried out in collaboration with the Philadelphia School District. The Bus not only reaches middle schools to increase Asthma Awareness, but also participates in a Tobacco Education Program sponsored by the City Health Department and conducted in collaboration with the Health Promotion Council. This three-year project, funded in 2002, will help increase awareness among parents and children of the detrimental effects of tobacco, especially on asthma.

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 unattended medical condition, experience poor school performance due to high absenteeism rates. This program seeks to identify these children and provide linkages to medical care and asthma-related services. The aims of this program are to identify children with undiagnosed and untreated asthma among those with high rates of absenteeism and poor school performance; to connect these children and their families with appropriate medical professionals who will provide them with ongoing medical treatment and monitoring; and to educate these children and their families about preventive measures that could be taken to care for this chronic disease and what resources are available for them in the community. We expect to identify, enroll and educate 90 high-risk children and their families. This project is funded by the Aetna Foundation, and is 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

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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. Two veterinarians with special training and credentials in laboratory animal medicine oversee the veterinary-care program.

The Office provides professional guidance and adminis-

Animals used in research must be provided with humane care and an environment conducive to their welfare for both ethical and scientific reasons.

trative 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 activities 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, 523 protocols have an "Approved" status, with 168 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 no change in occupancy over the past fiscal year. Our average occupancy for the 12-month period ending June 30, 2003 was 8,619 cages. Our average occupancy for the 12-month period ending June 30, 2004 was 8,613 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 the provisions of the Animal Welfare Act.

Preparing for the Future

The research needs at Jefferson continue to grow and pose challenges. Recruitment into the new Farber Institute for the Neurosciences and the Center for Translational Medicine has been significant this past year. The population of transgenic mice continues to grow while the available space remains constant. To help meet the needs of the investigators, Jefferson continues to commit capital resources to provide continued service for the investigators. A new aseptic surgery suite was developed in the College/Curtis facility that will be suitable for fluoroscopy. The continued purchase of individually ventilated housing units for transgenic mice allows for holding additional animals in the same space. A new autoclave was installed in the College/Curtis facility to allow the development of barrier space in that facility. This commitment 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 steady support and maintain high animal care standards as mandated by federal law and accreditation requirements.

Judith S. Daviau, DVM

Interim Director and Clinical Veterinarian

Academic and Instructional Support and

Introduction

During the year a process of analysis and self reflection by staff and approval by the deans of the three colleges resulted in a new name and mission statement for AISR. From Academic Information Services and Research, we became Academic and Instructional Support and Resources (AISR) with the mission:

... to strengthen the educational, research and clinical activities of the Jefferson community by:

- Providing knowledge-based information
- Developing instructional technologies and content
- Providing leadership in scholarly communications and publishing
- Managing the University's learning infrastructure and facilities
- Integrating learning resources into our educational programs

From Academic Information Services and Research, we became Academic and Instructional Support and Resources (AISR)...

To accomplish this mission AISR staff provides consultation, instruction, preservation, production and biomedical communication.

This mission better reflects the unique challenges which AISR is meeting for the University today.

Among the major activities during the year were the following:

- Providing support for the new first-year JMC curriculum, MP21. This included planning, teaching and staff support within the small group structure of that program.
- Planning for the creation of a new clinical skills and simulation center at 833 Chestnut St. and the implementation of a digital video recording system to support it.
- Garnering support from the three colleges and the President for more regular funding to support

student library services, such as public computers, printers, etc.

- Providing major teaching support for the JMC Faculty Development program through teaching and software development.
- Analyzing the use of JEFFLINE, seeking user feedback through focus groups, and transitioning that system to a new, more powerful interface.
- Continuing to develop commercially-viable educational software which enhances the image of the University and generates revenue for both faculty and the university.
- Continuing to build a strong collection of simulation and anatomical models and interactive software and other learning resources to assist faculty in teaching and students in their learning.

Two very serious challenges continue to persist for AISR:

First is the escalating cost of the medical literature. As has been the trend for well over a decade, the cost of journals continues to rise at a rate far in excess of the consumer price index. The anticipated increase in 2005 is expected to be more than 10%. AISR continues to educate TJU faculty about this crisis in publishing and encourages them to take control of their publishing and pressure the publishers to adopt an "open access" model which would control these costs globally.

Second, space continues to present a very serious problem for the library. Despite now having more than 1,300 journals available in electronic format, the print collection continues to grow, and the library is at full capacity already. At the same time, student expectations for the library are changing. Jefferson students, who mainly come from dynamic undergraduate institutions, expect the library to provide more space for small group interaction, relaxation and technology.

Scott Memorial Library

The University Library Committee met three times during the year. Under the chairmanship of Dr. Ike Eisenlohr, the Committee provided support and advice during a budget crisis at the beginning of the fiscal year and sound advice at the end of the fiscal year regarding the selection and marketing of new journals, books and

databases. The Library maintains relationships with the hospital librarians at several sites in the region that host JMC students for their clinical rotations. Their libraries play an important role in providing computers, JEFFLINE access, local print collections and information services for our students. An annual Affiliates Meeting was hosted in February. Vice Dean Callahan welcomed the visitors and attended part of the meeting.

Use of the library facility increased significantly over recent years. This may partly be due to the information seeking needs of medical students in the MP21 curriculum. Although the library's design does not allow for a metered gate, several statistics are evidence of this change. The number of reference and directional questions answered by staff increased by 19% to 52,311. And, the number of laser prints made by users tripled to more than 208,000. Circulation of library materials, which had been declining in recent years due to the availability of electronic resources, appears to be stable at about 101,000 items. The following chart shows external circulation by user group:

| Group | Circulation | Percent |
|--------------|---------------|---------|
| JMC | 8,085 | 38% |
| JCHP | 5,272 | 25% |
| JCGS | 1,423 | 7% |
| Corporate | 801 | 4% |
| TJUH | 4,492 | 21% |
| Members | 1,392 | 6% |
| Total | 21,464 | |

One trend is of concern. The amount of material borrowed under the interlibrary loan service increased by 7% for journal articles and books, while the number of items the Scott Library was able to fill for other libraries declined by 12% for journal articles and 31% for books. This would suggest that the library has fewer of the journals and books required by our researchers and students. Although the Library does not purchase journals and books to satisfy the interlibrary loan activities of other libraries, the dramatic decline in loaning also results in a dramatic reduction in revenue. Libraries charge each other, on average, about \$11 per item loaned/borrowed.

Budgetary restrictions have resulted in a decline in the scope and size of the journals and books the library can

purchase. As a cost savings measure the Library cancelled the Web of Science, a major research database. Approximately 80 journals were cancelled or ceased publication during the year. The number of current subscriptions declined 4% to 1,872. Despite this, the Library was able to increase the number of titles available in electronic format to 1,335. By year's end 265 new e-journals and 36 new e-books were added.

University Archives and Special Collections

The University Archives and Special Collections grew during the year with the addition of several important items:

- Sixty important rare books were received as a gift of Dr. Serge Duckett, some dating to the 18th century.
- The papers of President Brucker were transferred to the Archives.
- Thirty boxes of archival materials were transferred from the Cardeza Foundation.

Three exhibits were mounted by AISR during the year: one celebrating the 50th anniversary of the first heart-lung machine, one on African-American graduates of JMC, and an exhibit of very large format photographs related to the current NASA Mars program. As part of that, an exhibit on JMC graduate James Bagian was prepared.

JEFFLINE

AISR released a new interface for JEFFLINE at the end of the fiscal year. This represents the culmination of a lengthy process which included user surveys, focus groups and research of other library sites. Use of JEFFLINE increased dramatically for several specialty sections of JEFFLINE. Formerly called JEFFLINE Communities, under the new interface these are labeled "My JEFFLINE." These sections provide special services, more direct links to resources, or a place to publish unique materials for the population served.

Of particular note is the increased use in two sections. TJUH Nurses made 46% (14,174 uses) more use of their section, and the use for the Methodist Hospital section increased by 100% (53,916 uses).

There were more than 250,000 uses of JEFFLINE databases, a 13% increase over the previous year. Taken individually the following saw increased use:

MD Consult: 39%
Micromedex: 25%

Ovid: 10%
Stat!Ref (e-books): 73%
Harrison's: 15%

Learning Resources

The Learning Resources division of AISR manages the Scott and Edison Learning Resources centers and the Simulation Center supports the Clinical Skills Center and has general oversight for the teaching and study spaces on campus. The Learning Resources staff provided support and assistance for moving the Clinical Skills and Simulation Centers to 833 Chestnut St. Staff of the LRC, Education Services and Medical Media Services divisions provided expertise and recommendation for the design of the educational spaces, the acquisition and implementation of the clinical skill software support suite, and the computer networking and audio visual systems.

Several important changes to the learning infrastructure were planned and underway by year's end:

- A major upgrading of the computer network wiring within the Scott and Edison LRC's, Edison student lounge and Jefferson Alumni Hall public areas.
- Deployment of over 100 new computers within the Scott and Edison LRC's, Edison student lounge, Jefferson Alumni Hall student lounge, and adjacent to the escalators on the first floor of Alumni Hall.
- Creating more and better group study areas within the Scott LRC. This includes the upgrading of three small group rooms with new technology and furniture.
- Purchasing more computer projectors and other audiovisual equipment for faculty to check out.

AISR also purchased new clinical simulation and anatomical models to support teaching clinical skills, such as: central line simulators, a lumbar puncture simulator, and naso-gastric tube simulators.

The use of LRC collections increased by 40% to 8,230, and the number of uses of lab computers increased by 69% to 91,238. Part of this increase, however, must be attributed to a new system of capturing lab usage data.

Medical Media Services

The year was characterized by an almost universal shift to digital technology for teaching, image acquisition and

processing, preparation of material for publication and the creation of scientific and poster presentations. This shift necessitated many hours of consulting services by MMS staff to faculty and staff. Many faculty members switched to digital cameras for their microscopes and other lab equipment and often relied on MMS staff to help them resolve hardware and software issues.

Although the total number of work orders completed decreased from 5,487 to 5,056, this can be attributed mainly to the use of digital technologies for presentation mentioned above. The decline was mainly in photography and slide imaging. Overall, the Graphics and Medical Illustration division was very active with the following increases:

Medical Illustrations: 53%
Graphic Design: 39%
Multimedia Design: 150%

The number of video and audio recording hours increased by 38% to 514. The Video division was involved with the implementation of the Objective Structured Clinical Exam (OSCE) for JMC students. Over a period of 18 days, the staff videotaped the interaction of medical students with standardized students in the Clinical Skills Center. Staff also played the lead role in planning for the shift to a totally digital, software systems approach to recording student interactions in the new Clinical Skills Center at 833 Chestnut St. This integrated system will be implemented in the fall of 2004.

The Audiovisual-Classroom Support division saw a 17% increase in the use of video projectors and laptop computers. There were also 32 separate uses of the Audience Response System which was purchased several years ago. This is a 73% increase over the previous year.

MMS continued to push to create more lecture halls that are permanently equipped with computer and other projection systems. During the year it planned and implemented the installation of such equipment in 207, 307 and 407 lecture halls in Jefferson Alumni Hall. The response of faculty teaching in those spaces has been very positive. MMS staff also participated in plans to renovate classrooms on the second floor of the College and Curtis buildings.

Education Services

AISR Education services staff managed a number of major projects during the year. Among these:

- Created the Jefferson Multimedia Database which is a new resource designed to help faculty locate teaching images and other media resources developed at Jefferson and to share their instructional materials with others on campus. It stores in a wide variety of formats, including animations, video, sound files, diagnostic images and other media resources.
- Created the 24/7 Web site with the Office of Continuing Medical Education and participating TJUH physicians in order to provide the current best medical practice guidelines for common diseases. Included in this software is a function to download the guidelines to a personal digital assistant such as Palm.
- Created a JMC Faculty Development and Registration and Tracking Database for the Office of Faculty Affairs. The software is for workshop registration, attendance and session evaluation, to send email reminders to attendees and to provide reports.
- Converted the Effective Teaching seminars into computerized, self-directed learning modules. CME management software was included in this product development.

Two important new contracts were awarded to AISR during the year for educational software development:

Lippincott Williams & Wilkins agreed to fund the development of a second title in the *Patient Encounter* series which AISR initiated. This title will be *The History Taking Encounter*. LWW will fund the development, and TJU will also receive royalties on the sale of this product. Royalties from the first quarter sales on the first title in the series, *The Infant Patient Encounter*, were received and distributed to the authors and JMC.

AISR negotiated a contract for the third edition of the program *Resident Resources: Cardiovascular Medicine*. Funding was received from Bristol-Myers Squibb for this major project. Faculty from the Department of Family Medicine will author the program.

In collaboration with the Department of Continuing Medical Education AISR developed packaged educational products for TAP Pharmaceuticals. This generated income and national exposure for JMC departments.

Based on the new mission statement and broad goals approved by the deans in 2003, AISR staff has developed a significant number of goals to achieve in the next year. Among these:

During the past year AISR staff began investigating products that help manage thesis creation and the management process for graduate schools and their students. These products also interface with international databases for locating theses by subject and author. This activity will continue in the new year, and a report and proposal for adopting such software will be made to the Graduate Council.

Similar and related to the theses project, AISR staff have identified software for managing an 'institutional repository' of Jefferson-created intellectual content. Such repositories already exist at larger institutions and many are using a product called D-Space, developed at Massachusetts Institute of Technology. AISR will load D-Space and at least one other product to evaluate their functionality and approach faculty about their interest in maintaining their content (published papers, technical reports, archival materials) in such a repository.

AISR intends to acquire a 'digital video server' which will make educational videos available to users from any workstation on and off. Examples of the kind of video that will be made available include anatomical dissection programs, physical examination demonstrations, and Jefferson lectures.

Working with Dr. Emilie Passow, AISR has arranged for the mounting of an exhibition of the artwork of Mary Ann Bartley. Ms. Bartley is artist in residence at Villanova University, WHYY, and the College of Physicians. The art will hang in both Jefferson Alumni Hall and the Library. Titled "A Flotilla of Healing Kites" the exhibit focuses on health and healing. This exhibit is part of "The Kite Project" which involves faculty from various departments and a variety of events, including lectures, creation of new art by medical students, and possibly a concert. The goal is to integrate the humanities into the educational process and to provide more beauty for students, faculty and staff on the campus.

Edward W. Tawyea
Director, AISR and University Librarian

Selected AISR Goals for 2004

Alumni Association

The major goals of the Alumni Association can be summarized as follows:

- Strengthening ties with the alumni and the 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 for the first time on October 9, 10 and 11, 2003. Another first was the CME symposium, *Updates and Controversies in Medicine 2003* presented by Jefferson faculty members. The Alumni Banquet was held on Friday evening in Jefferson Alumni Hall during which the Alumni Achievement Award was presented to Richard P. Wenzel, MD'65, William Branch Potter Professor and Chair, Department of Medicine, Medical College of Virginia. The postgraduate alumni held their reunion dinner at the banquet. The Saturday morning program included the Women's Forum Breakfast, Retirement and Investment Planning for Physicians, an Eakins Gallery Dialogue and 12 clinic presentations. The Dean's luncheon followed. On Saturday evening, 12 reunion dinners were held at various sites around the city.

During the year, the Alumni Association holds receptions for alumni and postgraduate alumni to bring them together in a social setting to hear the latest news about Jefferson from members of the administration or faculty. Three regional receptions were held in 2003-2004. They took place in Naples, FL on January 31; in Cherry Hill, NJ on April 30 and in Lehigh Valley, PA on May 7. Thomas J. Nasca, MD'75, Dean of Jefferson Medical College and Phillip J. Marone, MD'57, Associate Dean for Alumni Relations and Executive Director of the JMC Alumni Association were the hosts at each event. Alumni receptions were held during the annual meeting of the American Medical Association in Chicago on

June 12 and during the annual meeting of the Association of American Medical Colleges in Washington, D.C. on November 9. In addition, the Alumni Association helped to arrange 10 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 8 during Orientation Week. At Opening Exercises, the freshmen received their white coats, a symbol of the physician, as a gift from the Alumni Association. The Alumni Association also presented the official Jefferson mug to the new freshmen and the returning sophomores.

A Beef and Brew reception for the freshmen, held on January 21, 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. Bagels, compliments of the Alumni Association, help to sustain these two classes during their examinations.

For senior students who are traveling across the country for postgraduate program interviews, the Host Program arranges overnight 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 Kelly McGuigan. 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 2004 Clinic and the Black and Blue Ball.

Career Day I for sophomore and junior students was held on December 3. After an explanation of the match process, students had the opportunity to choose five presentations from among the 31 specialties offered. Later, students and alumni enjoyed a light supper in the cafeteria, giving students an additional opportunity to discuss career alternatives with alumni. Thirty-two alumni volunteered their time as presenters. The following day during Career Day II, students heard the "behind the scenes" experiences of 32 residents and

16 fellows from the hospital who provided invaluable information about lifestyles, residency/fellowship training and opportunities within the different specialties. A light supper followed the program.

The Parents' Day Program allows second-year students to share a bit of their medical school experience with parents and spouses. On March 12, Pauline K. Park, MD '82, president of the Alumni Association, opened the program with a brief history of the Medical College. Four faculty members gave presentations, followed by lunch in the cafeteria and tours of the campus. President Paul C. Brucker, MD and Dean Nasca were present to welcome the students and their guests.

The Alumni Association continues to look for ways to

The 56th Annual Giving campaign concluded on June 30 of this year. We thank the 3,614 alumni, postgraduate alumni, non-graduate faculty and friends who contributed \$1,848,756 to advance the mission of the Medical College.

interact with the residents and fellows who will one day be postgraduate alumni. All new residents and fellows are welcomed to Jefferson in the name of the Alumni Association and given a Jefferson mug. All house staff members receive the quarterly *Alumni Bulletin*. This year the Alumni Association purchased a subscription to *UpToDate*, a clinical resource database, for a computer in the residents' lounge.

Alumni and postgraduate 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 Internet. 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 password-protected online email directory, change their address, send in class notes and make online contributions to Annual Giving.

At the Annual Business Meeting on April 22, President Park passed the gavel to incoming president Walter F. Wrenn III, MD '74. The slate of nominees elected to office was: president-elect James W. Fox IV, MD '70; vice presidents Barbara G. Frieman, MD '80, Joseph A. Riggs, MD OBG '64; John H. Moore, Jr., MD GS '85 and Lorraine C. King, MD REN '77; and secretary Karen D. Novielli, MD '87. New members of the Executive Committee and new honorary members of the Alumni Association were welcomed.

Stephen Slogoff, MD '67 chose not to serve a second three-year term as an alumni trustee on the Board of Trustees. Peter V. Scoles, MD '79 was elected by the alumni to take his place.

The 56th Annual Giving campaign concluded on June 30 of this year. We thank the 3,614 alumni, postgraduate alumni, non-graduate faculty and friends who contributed \$1,848,756 to advance the mission of the Medical College. We are especially grateful to Jerome M. Cotler, MD '52 who generously agreed to make a donation in the name of every member of the Class of 2003 for the next five years so that these young physicians could achieve a 100% participation rate in Annual Giving as they begin their careers. We hope that, given this good start, our young alumni will continue to be supporters of Annual Giving and Jefferson throughout their lives.

Phillip J. Marone, MD '57

Associate Dean for Alumni Relations

Executive Director of the Alumni Association

Overview

FY 04 heralded a banner year for JUP with many notable firsts since the inception of the organization. This fiscal year, we recorded the highest charge month at over \$43 million and the highest patient care receipts month at over \$18 million. With annual patient care receipts of \$166 million, JUP experienced nearly an 8% receipts growth over last year. Taken by itself, this level of growth is remarkable given our marketplace. However, this result takes on even more significance given that this accomplishment was achieved with about the same number of physicians compared to last year. JUP physicians continue to rise to market challenges by stretching productivity boundaries and, as such, assure JUP's competitive edge.

Of note, this year, we got a helping hand from the market with the Governor's MCare abatement (first of two years) and rate increases from our key payers. Both of these contributed to our strong financial performance. The highlights below reflect what was by all indicators another year of robust organizational performance.

Strategic Highlights

On the strategic front, there were a number of key organizational initiatives that laid the foundation for the year's results and, more importantly, set the baseline for JUP's future. These initiatives including the following:

- Initiated a planning process for defining JUP's clinical computing strategy for an Electronic Health Record (EHR). This initiative included the creation of a Steering Committee as well as three work groups charged with evaluating the technical, financial and operational issues associated with this undertaking.
- JUP became a member of the UHC Faculty Practice Plan Solutions Center. The Solutions Center is an entity that collects, compiles and benchmarks academic physician productivity and financial statistics. In addition, this information is provided via a Web-based reporting tool and readily available to all Clinical Chairs and Department Administrators.
- Instituted, through the IDX Practice Management system, a process to routinely identify referring physicians. The implementation of this process has enabled monthly reporting of referral trends associated with JUP ambulatory activity.

- Under the purview of the JUP Clinical Care Committee, outpatient performance measurement initiatives are underway through the efforts of Dr. David Nash and the Department of Health Policy. Their efforts have been twofold. Initially, they have completed an inter-departmental project that has given valuable feedback to primary care physicians related to hypertension, benchmarked to HEDIS measures. Secondly, they continue to work with each JUP department in developing at least one outpatient performance measurement activity to improve quality in each JUP department.

Financial Highlights

JUP enjoyed a strong year financially in FY 04. Professional liability insurance cost continues to represent a

JUP physicians continue to rise to market challenges by stretching productivity boundaries and, as such, assure JUP's competitive edge.

disproportionate share of our expense base and dampen the impact of revenue growth and gains from enhanced contract rates. The year's financial performance was punctuated by the following:

- Charges were \$6.7 million or 1.56% ahead of budget and \$30 million or 7.36% ahead of FY 03.
- Receipts were \$5.5 million or 3.44% ahead of budget and \$12.8 million or 8.33% ahead of FY 03.
- Net income for JUP overall was positive.
- Better than budgeted financial performance in both the billing and administrative cost centers resulting in a reduction of the actual cost of billing and "overhead" tax compared to budget.

Health Plan Services Highlights

In the past year, Health Plan Services continue to augment activities of the patient business services unit by building on initiatives related to payor contracting, provider relations and physician enrollment /credentialing. Highlights of the year include:

- Signed a new group contract for JUP with United Health Care, a national insurer. Realized enhanced

revenue due to the completion of the renegotiation of the existing Aetna contract.

- Instituted negotiations with several payors regarding securing delegated credentialing for JUP. Internalizing this process will result in a reduction in payor claim issues and increase cash flow. An internal Credentialing Subcommittee, comprised of JUP physicians, has been established and meets monthly to facilitate this delegated credentialing process.
- Developed enrollment/credentialing reporting to improve communication to departments and physicians on the status of the enrollment/credentialing process. These reports have resulted in more timely submission of new provider credentialing documents and related payor enrollment/credentialing applications.
- Continued strengthening relationships between JUP and the major Philadelphia payors by building positive interactions through regular meetings. These meetings have proven helpful in resolving operational issues as well as having the senior medical management of the plans meet some of the top JUP physicians while presenting overviews of our centers of excellence programs.

Practice Operations Highlights

Practice operations continued to build on strengthening the JUP practice environment and thus maintain JUP's competitive edge. Accordingly, special emphasis was placed this year on initiatives that assisted in the management of the practices. Highlights for the year are:

- Implementation of a central registration program. This initiative is structured to ensure accuracy of the financial data captured within the IDX Practice Management system. The major feature of this program is to limit access of the financial data fields in the system to a core group of specially trained individuals working in Physician Business Services.
- Implemented new cash reconciliation program throughout JUP. This program included development of policies and procedures for daily reconciliation of cash collected in the practices. Coupled with this initiative was a change of our banking partner. PNC Bank provides an online Web-based reporting tool that enables practice management to monitor bank deposits and credit card transactions on a daily basis.

- Instituted an Employee Recognition Program to highlight the extraordinary efforts of JUP employees in their service to patients.

- Developed a *JUP Disaster Planning Manual* focusing on protocols for system failure and emergency incident planning in the ambulatory environment.

Business Services Highlights

The Physician Business Services unit continued to build upon and expand revenue cycle processes for FY 04. HIPAA compliance spurred a major initiative for electronic submission of claims to third party payors. Of note, is that these conversions were successfully implemented with only minor cash flow disruption. Physicians Business Service's FY 04 progress is measured by the following:

- Exceeding FY04 targets for both charges and receipts.
- Exceeding FY04 Gross Collectibility targets.
- Expense savings resulting in better than budgeted expense performance contributing to a rebate of billing costs to all departments.
- Successful EDI conversion to HIPAA Transaction and Code sets.
- Expanded electronic claim submission capabilities to third party payors resulting in increased cash flow.

Outlook for FY 05

In FY 05, we will continue to build upon the gains of the past year to address continued pressures placed on us by the environment. On the forefront of our agenda is the need for a strategy to strengthen the vitality of JUP's clinical programs. To that end, task forces have been established to develop action plans around patient retention/growth and preservation of a balanced payor mix. Assuring the quality/value of our programs will also be an area of focus as the clinical care committee continues to build on JUP-wide quality initiatives. Along this line, we anticipate that we will reach consensus on an Electronic Health Record (aka--Electronic Medical Record). We expect that FY 05 will be another dynamic year as the fruits of the faculty's and staff's labor germinate.

John Ogunkey

Executive Director of JUP

Planning and Financial Operations

Planning and Financial Operations

The financial operations of Jefferson Medical College for the fiscal year 2003-2004 were approximately \$3.2 million better than budget, before recurring items which included faculty buyouts of .5 million dollars. This positive outcome was the result of significant efforts throughout the medical college in cost saving for the year. This was an extraordinary effort given that there had been midyear cost reductions in the previous fiscal year as well. Contributions for the year were \$3.3 million under budget, but were offset by other revenues and restricted gifts. College operations reflect the net outcome of Jefferson University Physicians (JUP) activities, which have a separate annual report as a complement to this.

Grant activity in the Medical College totaled \$134.3 million which was 5.6% greater than the prior year, although below the current year budget. Grant activity did not reach budget due to continued delayed expenditures of tobacco funds related to recruitments, and to the slow transition of funds from outside the institution for new faculty recruited. During the year, Directors of Medical Oncology and Pulmonary Medicine and Critical Care have been put in place. These in addition to focused recruitment in neurosciences and translational medicine in the Department of Medicine should see continued growth in research activity. Direct cost expenditures were \$99.9 million versus a budget of \$108.8 million or a variance of \$8.9 million. Indirect costs saw a budget of \$37.8 million and an actual of \$34.4 million for a variance from budget of \$3.4 million. After year end, the University negotiated a new indirect cost rate with the federal government extending four years into the future with rates of 56% for two years and 55% for two years. The 56% rate for fiscal year '05 is consistent with budget assumptions.

The budget preparation process for fiscal year 2005 continued the mission-based management approach for the third year. The Medical College continued to work with Thomas Jefferson University Hospital in making program decisions and resource allocation utilizing the mission-based budgeting approach. The Hospital updated some of its model data for GME allocations, but continues to use essentially the same philosophies for allocations of these and medical leadership dollars. The goal continues to be to have each department function

as a complete cost center with its available resources, direct expenditures and relevant overhead costs.

The Operating Budget for fiscal year 2005 reflects a 13.7% increase over fiscal year 2004 actual and a 4.2% increase over the fiscal year 2004 budget. This increase incorporates a 3% merit pool increase for faculty and staff employees effective January 1, 2005, a 5.5% increase in medical student tuition plus a fee for information technology and library service charges. The endowment rate payout has been reduced by .5% to 5% and an increase in restricted gift activity of \$3.5 million. Thomas Jefferson University Hospital has increased the support for GME infrastructure to the Medical College by \$1.1 million. The fringe benefit rate is going up 1.7% to 28.4%. Deficit support to Jefferson University Physicians is budgeted to decrease by \$1.2 million, due largely to the discontinuation of the hold harmless adjustment in existence for the past three years. The College has, however, agreed to cover \$2.3 million of increase in the primary layer of JUP professional liability insurance. Total grant activity has increased over fiscal year 2004 as actual by 7.8% or \$9.7 million. Increased grant activity anticipates recruiting in the neurosciences, expenditure of grants transferred late in the last fiscal year, as well as increased expenditure rates of tobacco funds.

Space Management

In fiscal year 2004, planning for a new academic building was essentially deferred due to the planned retirement of the University President and the change in Chairman of the University Board. It is anticipated that this issue will be restarted in the fall of 2004, once the new University President is actively involved.

Major activities during fiscal year 2004 included occupancy of the majority of the third and fourth floor of the Jefferson Hospital for the Neurosciences with only small portions of renovations yet to be completed as new faculty are recruited and funding becomes available. Both areas were occupied and actively in use. The Department of Neurology faculty and outpatient offices were fully active and saw the consolidation of multiple neurology outpatient sites into a single location. Renovations were begun late in the year on a portion of the third floor College Building for expansion of the Department of Medicine Center for Translational Research. The remainder of this floor is anticipated for

renovation during the latter part of fiscal year 2005. Thanks to an anonymous donor, the second floors of the College and Curtis buildings, which house a substantial amount of teaching space, are being renovated. The space in the Curtis Building is being designated the Paul C. Brucker, MD Learning Center. The space in the Medical College Building continues to be the Kellow Center. For fiscal year 2005, the Medical College has been allocated \$1 million for capital projects already identified. Additional resources may become available through decision of the University Capital Resource Allocation Committee or through grant funds available

to individual departments or investigators during the course of the fiscal year.

John A. Monnier

Senior Associate Dean, Research Administration and Human and Physical Resources

Statistical Abstract

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Figure 1
Undergraduate Science GPA

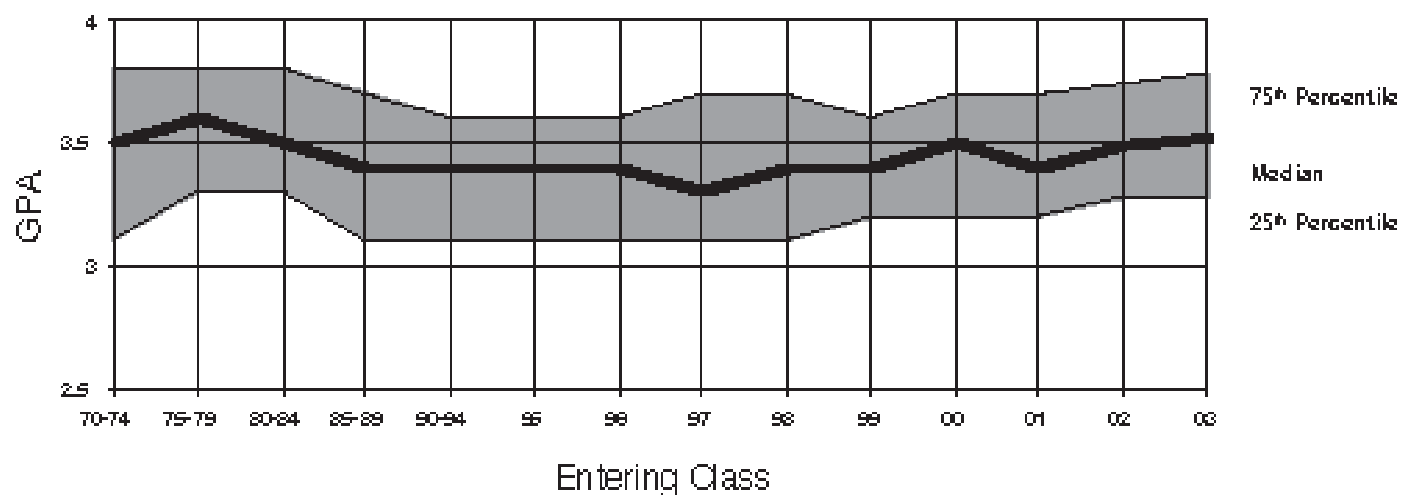


Figure 2
Undergraduate Non-Science GPA

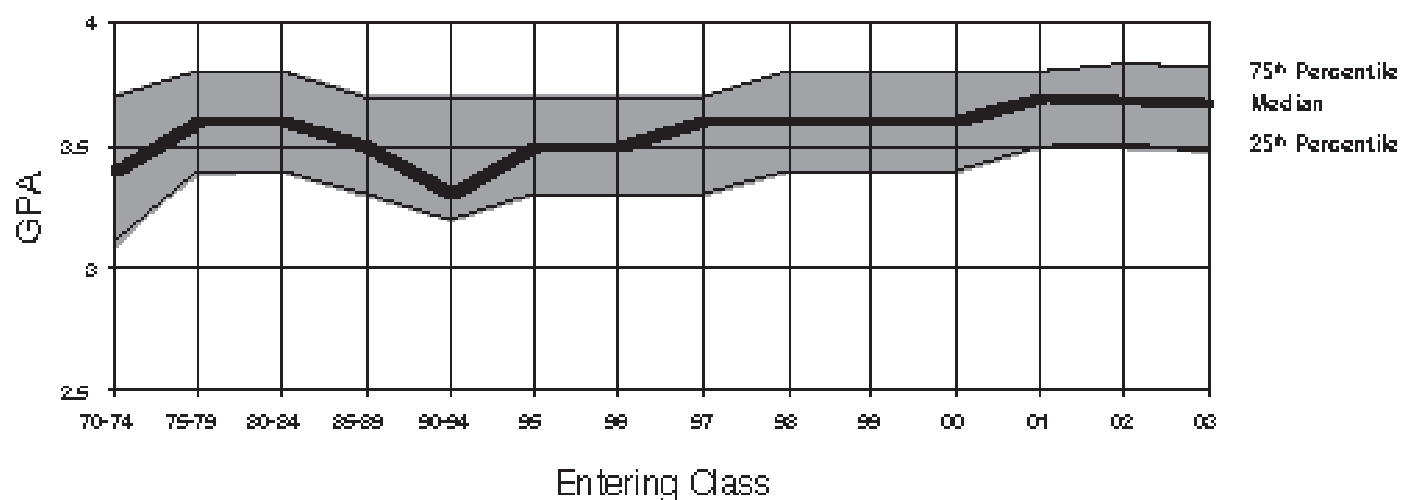
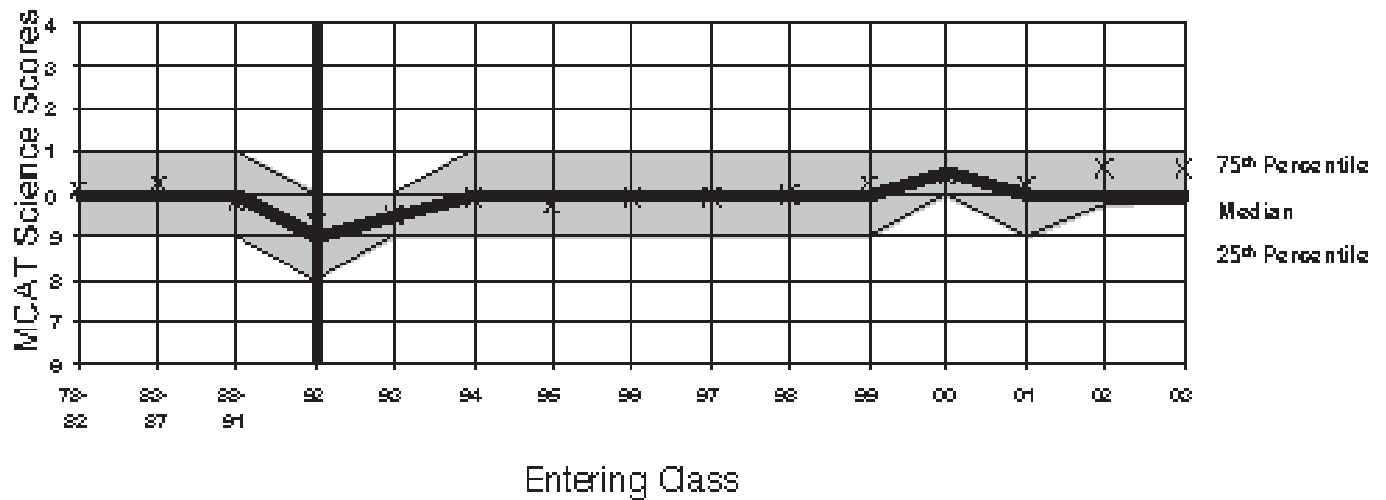


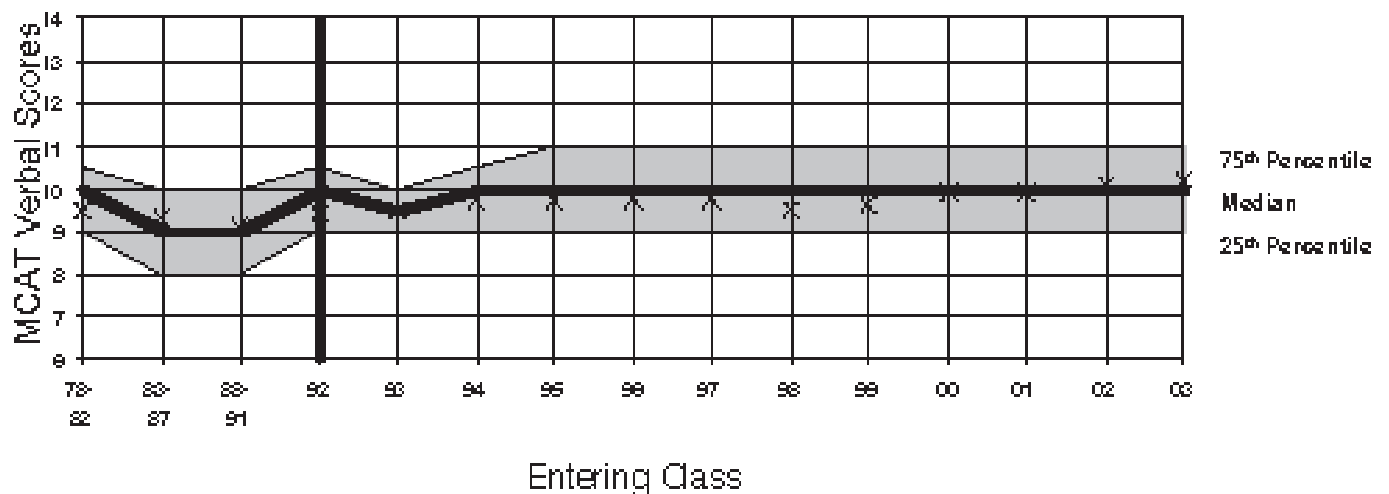
Figure 3
MCAT Science¹



X = Means.

- ¹ Scores on the MCAT Science Problems are reported before 1992.
The Biological Sciences scores are reported thereafter.
Maximum score was used for repeaters.

Figure 4
MCAT Verbal¹



X = Means.

- ¹ Scores on the MCAT Verbal Skills are reported before 1992.
The Verbal Reasoning scores are reported thereafter.
Maximum score was used for repeaters.

Figure 5
Percent of Women Matriculants

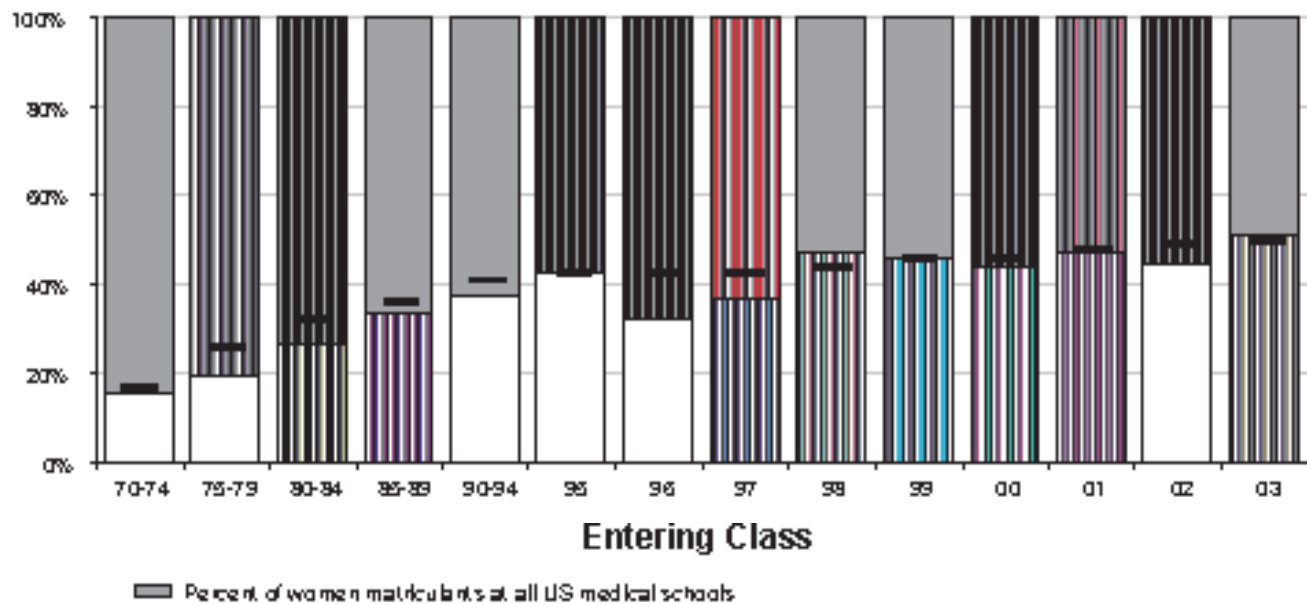
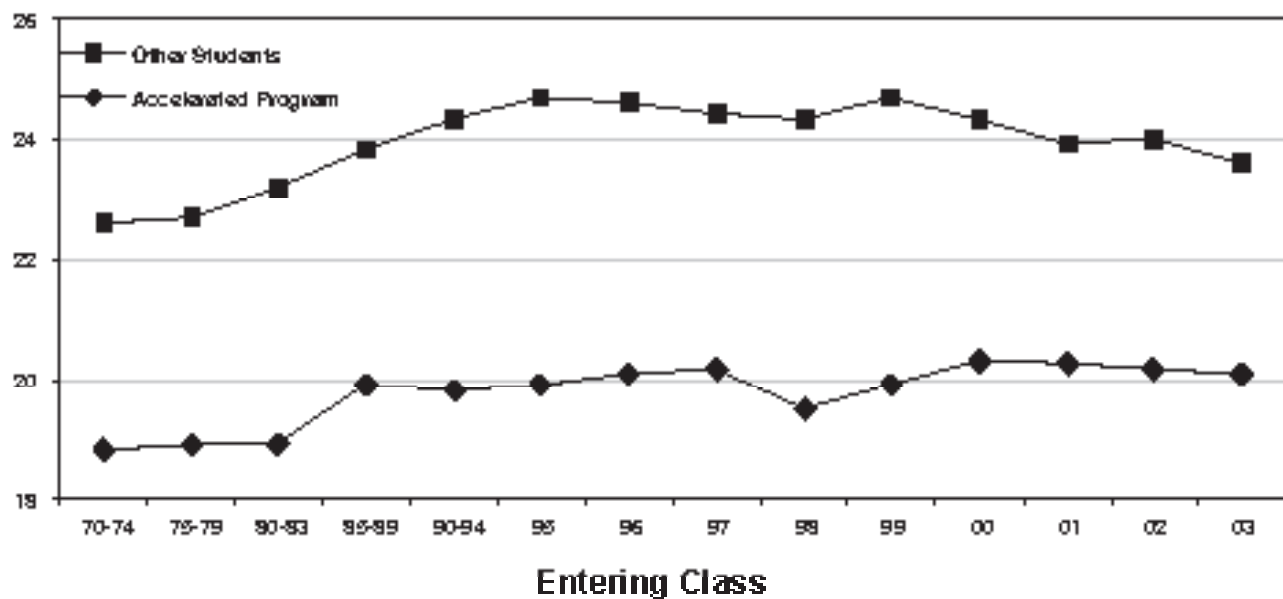
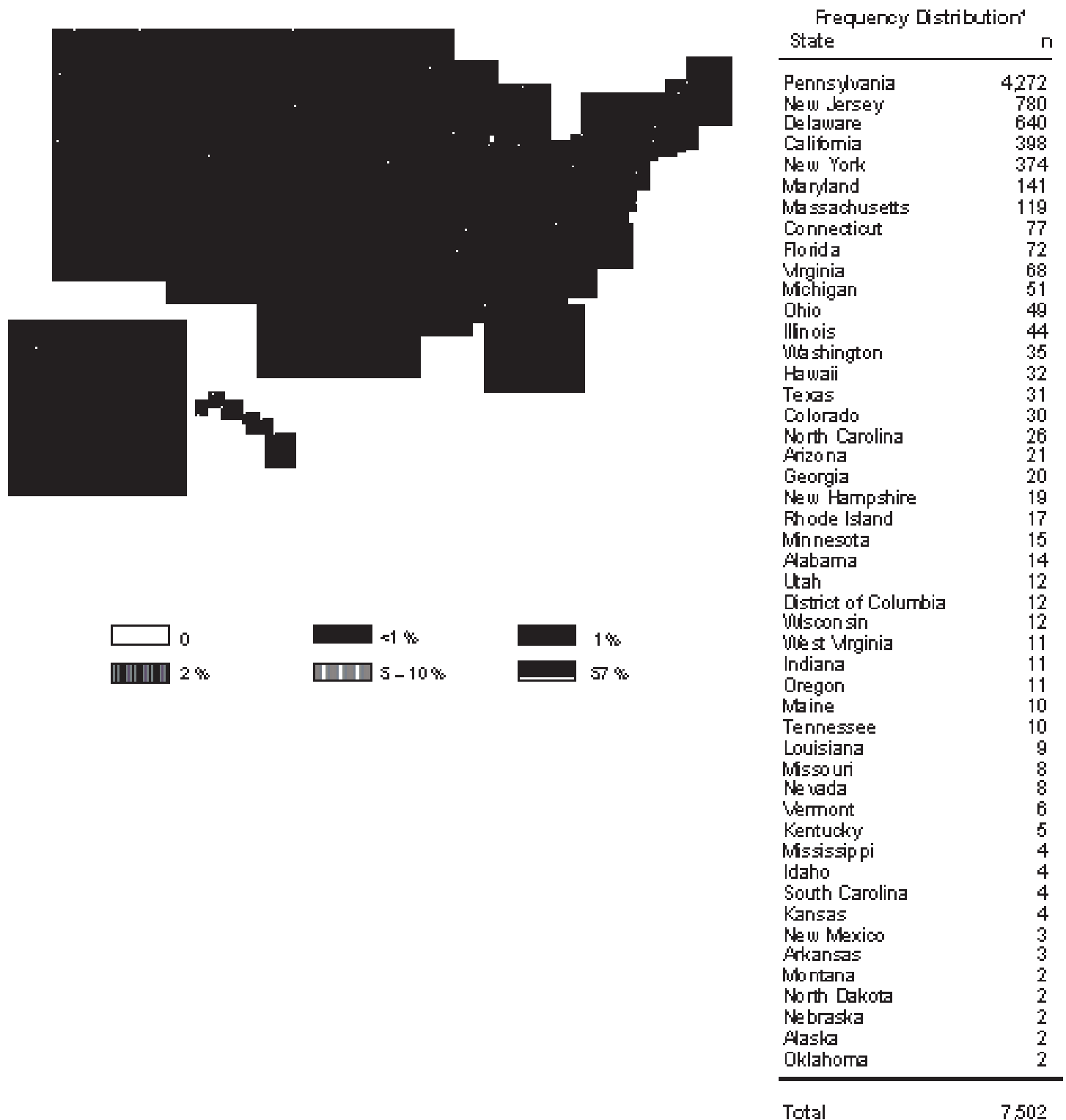


Figure 6
Mean Age at Matriculation



¹ The accelerated program had been a 5-year combined BS-MD program before 1994. During the transition year 1994, no students were admitted to the program. Thereafter, it became a 6-year program.

Figure 7
Home State for Matriculants
 Entering Classes of 1970 - 2003



¹ A total of 45 students from foreign countries, 7 students from Puerto Rico, 9 students from Canada, and 5 student from the US Territory Virgin Islands are excluded.

Table 1
Percentage[†] of Matriculants by State of Residence
at Time of Matriculation

| Home State Matriculation | Year of Matriculation | | | |
|-----------------------------|----------------------------|----------------------------|----------------------------|--------------------------|
| | 1970 - 1979 (n = 2,184) | 1980 - 1989 (n = 2,228) | 1990 - 1999 (n = 2,255) | 2000 - 2003 (n = 901) |
| Pennsylvania | 70% | 59% | 45% | 45% |
| New Jersey | 7% | 11% | 12% | 12% |
| Delaware | 9% | 8% | 9% | 8% |
| California | 2% | 6% | 8% | 5% |
| New York | 4% | 5% | 6% | 6% |
| Maryland | 1% | 2% | 3% | 2% |
| Massachusetts | 1% | 2% | 2% | 2% |
| Connecticut | 1% | 1% | 2% | 1% |
| Virginia | ≤1% | 1% | 1% | 2% |
| Florida | ≤1% | 1% | 1% | 2% |
| Ohio | 1% | 1% | 1% | 1% |
| Illinois | ≤1% | ≤1% | 1% | 1% |
| Michigan | ≤1% | ≤1% | 1% | 2% |
| Hawaii | ≤1% | 1% | ≤1% | ≤1% |
| Others [‡] | 2% | 1% | 7% | 10% |
| Total % | 100% | 100% | 100% | 100% |

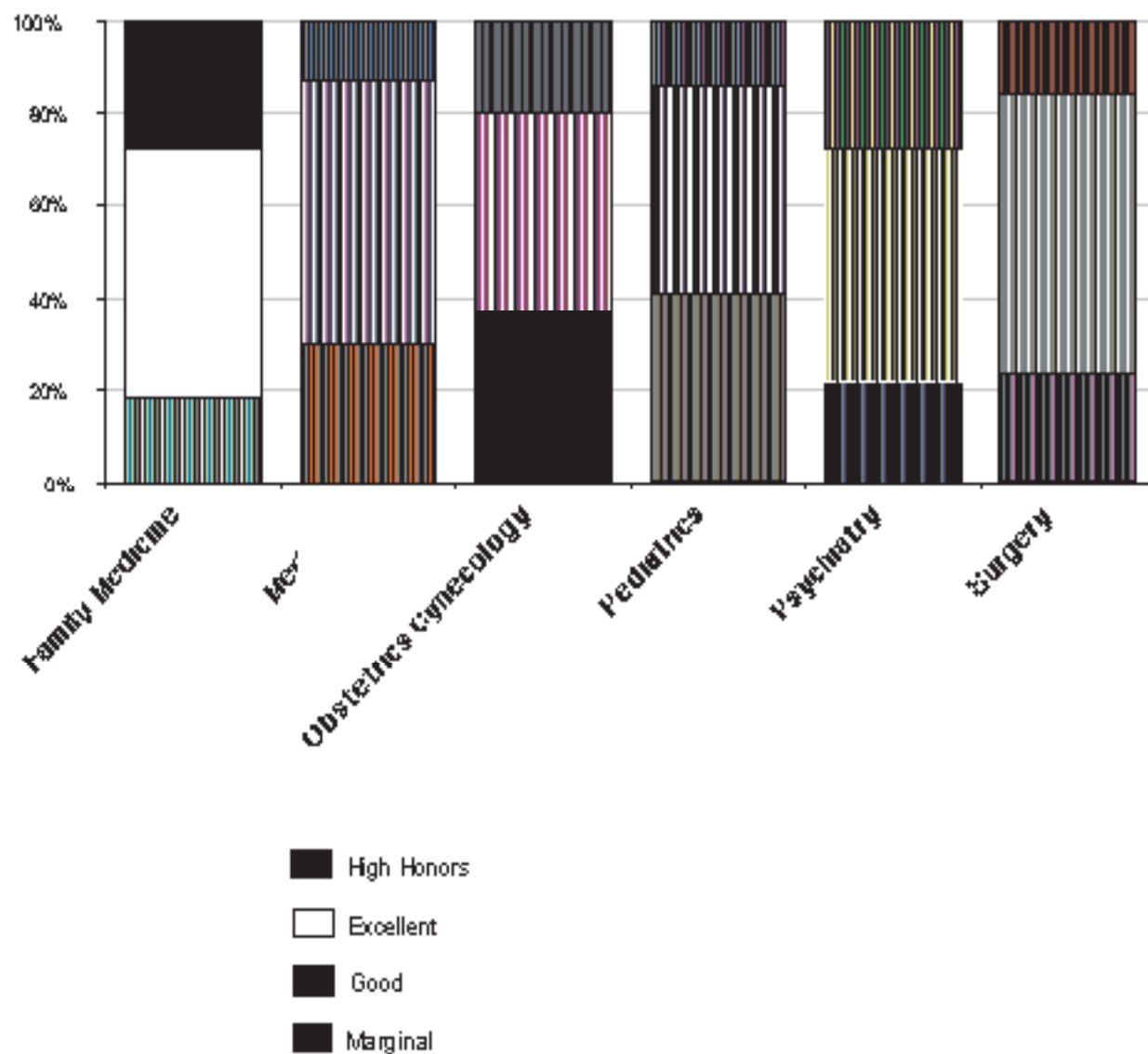
† Percentages are based on total matriculants in each time period.

‡ States with fewer than 1% of matriculants in all time periods.

Table 2
Graduation, Transfers, and Attrition
Entering Classes of 1970 - 2000

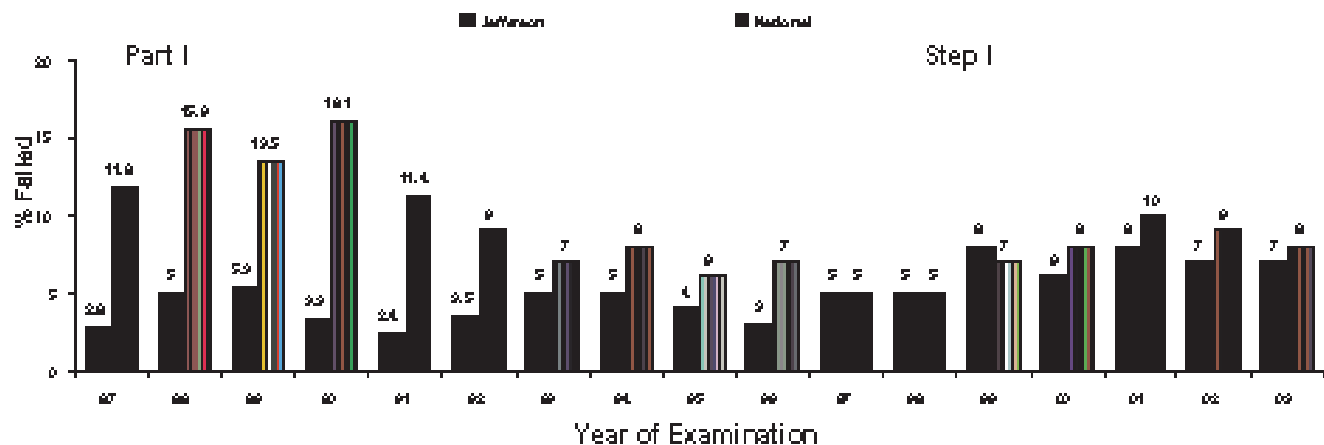
| Entering Class | | Graduated | | | | Transfer | Did Not Graduate | | |
|----------------|------|-----------|----------|--------------|-------|----------|------------------|-----------|----|
| | | On-time | Late | | | | Withdrawn | Dismissed | |
| | | | Academic | Non-Academic | Mixed | | | | |
| Year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

Figure 8
Clinical Ratings of Students in Six Core Clerkships*
 Graduating Class of 2004

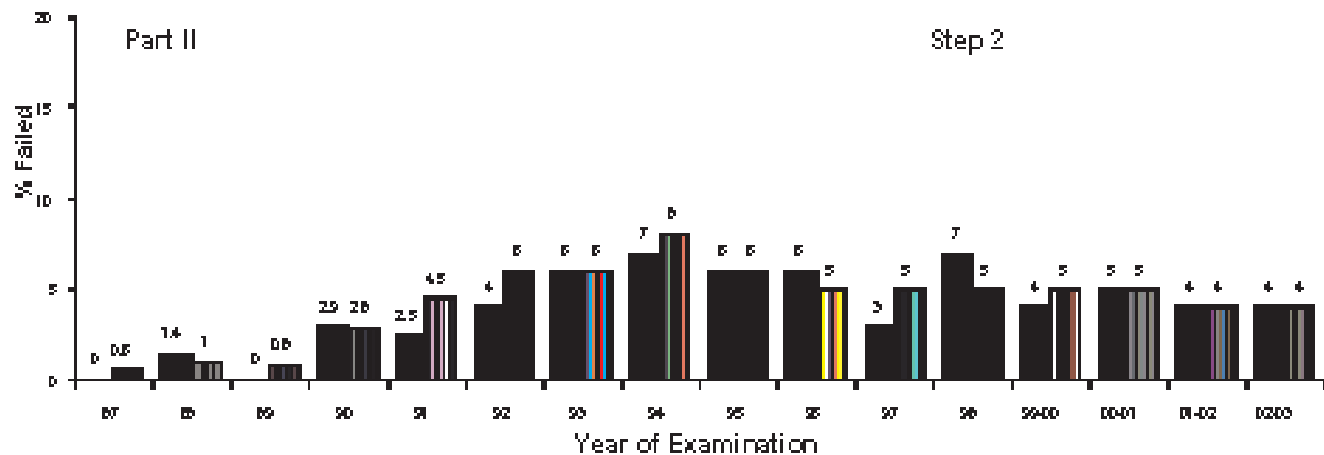


* Global rating of students' clinical competence given by the faculty.

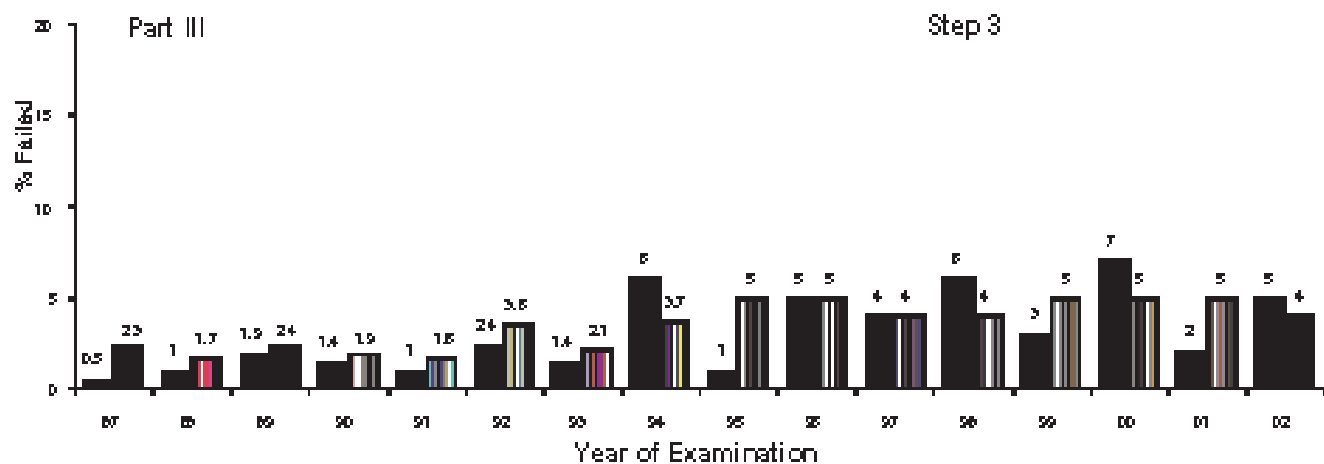
Figure 9
United States Medical Licensing Examinations (USMLE)
National Board Examinations*



* 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.



* 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.

1 Graduates of 1998 who took the examination between May 1998 to December 2000.

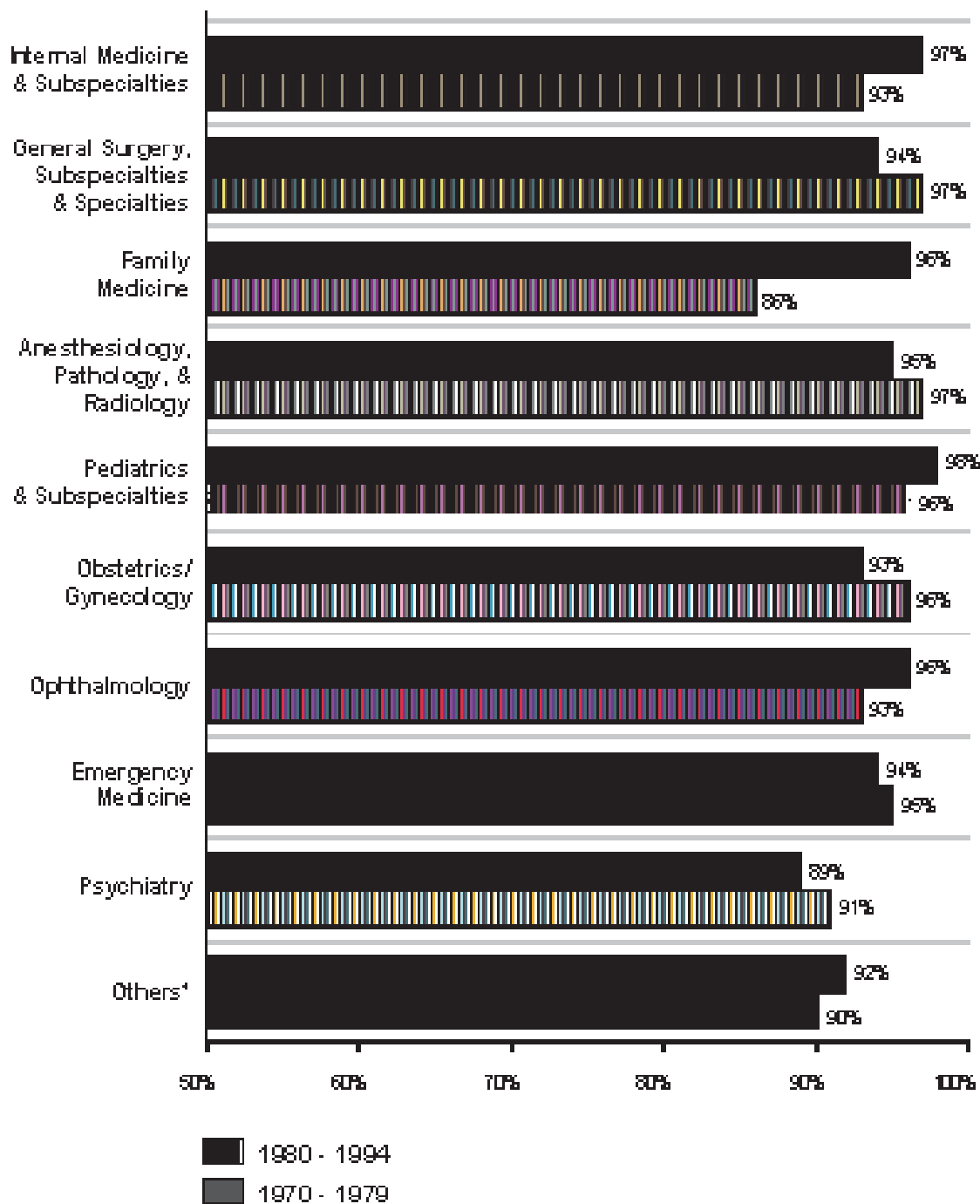
2 Graduates of 1999 who took the examination between May 1999 to December 2001.

3 Graduates of 2000 who took the examination between May 2000 to December 2002.

4 Graduates of 2001 who took the examination between May 2001 to December 2003.

Center for Research in
 Medical Education and Health Care
 July 2004

Figure 10
Board Certification Rates of Alumni*
Graduating Classes of 1970 - 1994



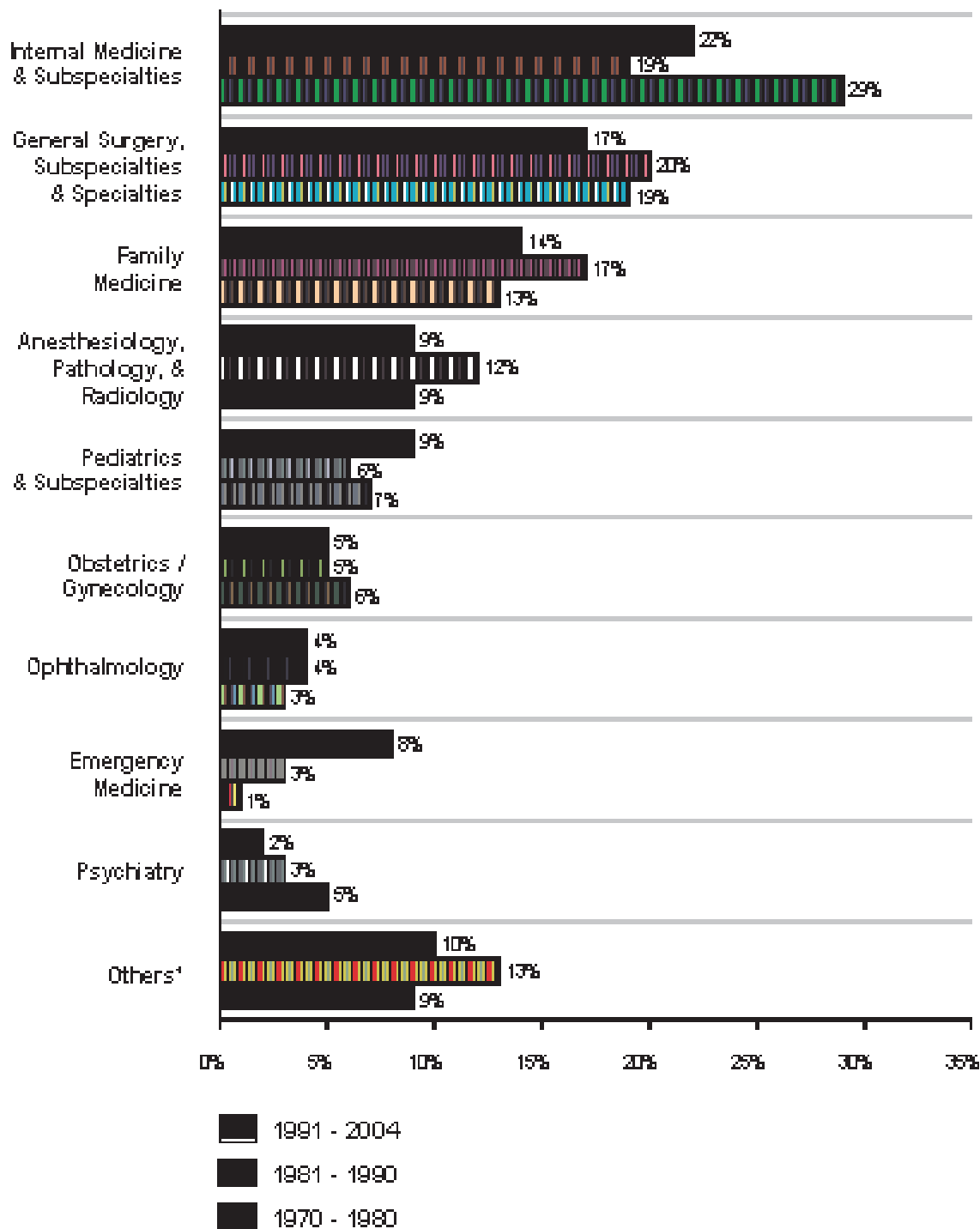
* Percentages are based on the total graduates in each specialty.

* "Other" includes 19 specialties and subspecialties, each representing less than 1.8 percent of total alumni.

Sources: American Medical Association, and American Board of Medical Specialties.

Center for Research in
 Medical Education and Health Care
 July 2004

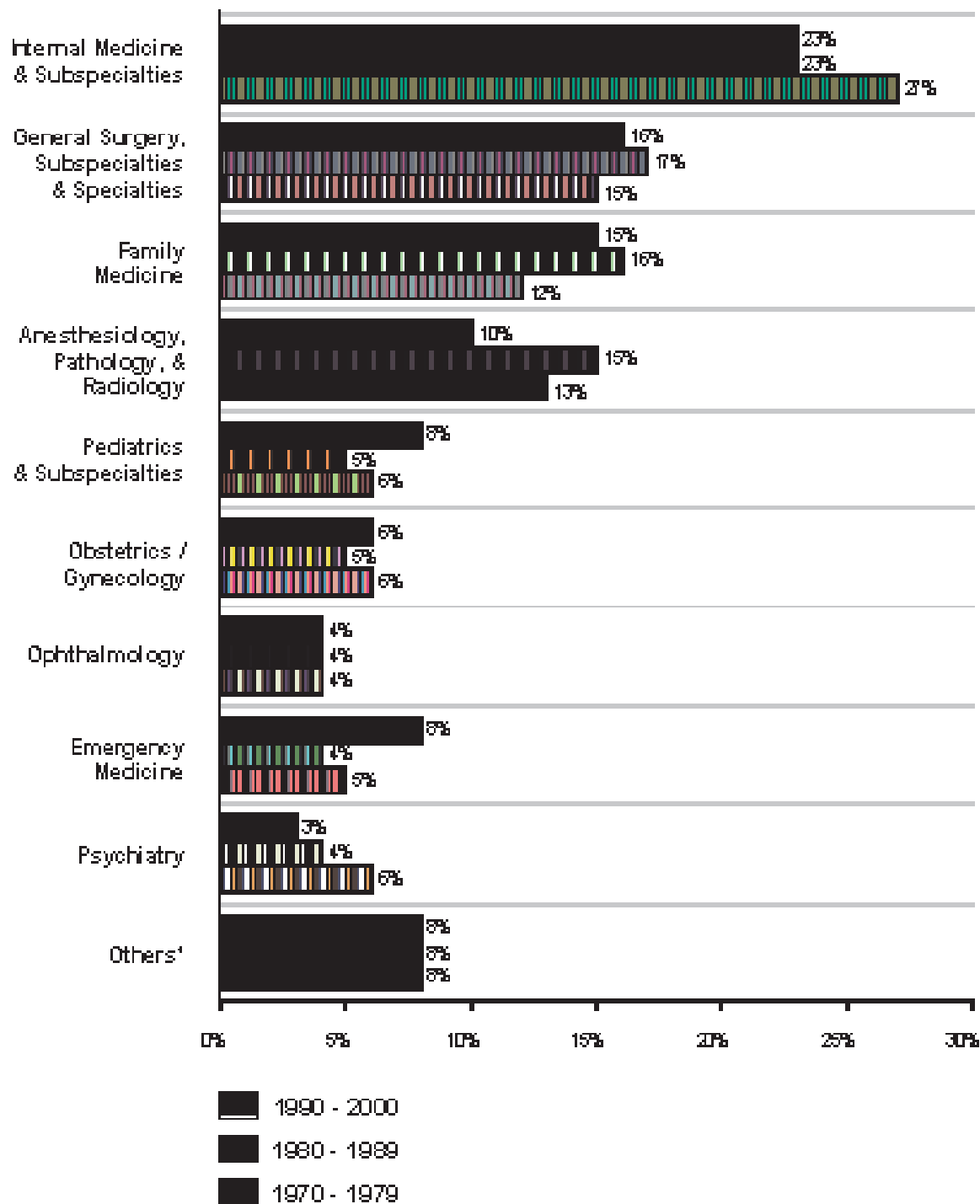
Figure 11
Specialty Preference of Seniors*
Graduating Classes of 1970 - 2004



* Data from a questionnaire given to the senior students.

† 'Other' Includes 17 specialties and subspecialties, each representing less than 1% of the seniors.

Figure 12
Specialties of Alumni*
Graduating Classes of 1970 - 2000



* Sources: American Medical Association, American Board of Medical Specialties, Jefferson Alumni Office, and graduates' follow-up questionnaire.

† 'Other' Includes 21 specialties and subspecialties, each representing less than 1% of the total alumni.

Table 3
Percentage of Graduates by State of Residency Training

| State of Residency Training | Year of Graduation | | | |
|--------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | 1970 - 1979 (n = 2,011) | 1980 - 1989 (n = 2,167) | 1990 - 1999 (n = 2,153) | 2000 - 2004 (n = 1,033) |
| Pennsylvania | 47% | 51% | 44% | 43% |
| New York | 11% | 6% | 5% | 8% |
| California | 5% | 6% | 8% | 6% |
| Delaware | 5% | 6% | 5% | 5% |
| New Jersey | 2% | 4% | 4% | 3% |
| Massachusetts | 3% | 3% | 3% | 4% |
| Virginia | 2% | 3% | 3% | 2% |
| Ohio | 3% | 2% | 3% | 2% |
| District of Columbia | 3% | 2% | 3% | 3% |
| Maryland | 2% | 2% | 3% | 3% |
| Connecticut | 3% | 2% | 2% | 1% |
| Illinois | 2% | 1% | 2% | 2% |
| North Carolina | 1% | 1% | 2% | 1% |
| Florida | 2% | 1% | 1% | 1% |
| Michigan | 1% | 1% | 1% | 1% |
| Texas | 1% | 1% | 1% | 1% |
| Others [‡] | 7% | 8% | 10% | 14% |
| Total % | 100% | 100% | 100% | 100% |

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

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

Table 4
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 - 1999 (n = 2,129) |
| Pennsylvania | 41% | 39% | 41% |
| New Jersey | 7% | 7% | 6% |
| California | 7% | 6% | 8% |
| New York | 6% | 6% | 6% |
| Maryland | 3% | 4% | 4% |
| Delaware | 3% | 4% | 5% |
| Massachusetts | 4% | 4% | 3% |
| Florida | 4% | 3% | 2% |
| Virginia | 2% | 3% | 3% |
| Ohio | 2% | 2% | 2% |
| Texas | 2% | 1% | 2% |
| North Carolina | 1% | 2% | 2% |
| Connecticut | 2% | 1% | 2% |
| Illinois | 1% | 1% | 2% |
| Georgia | 1% | 2% | 1% |
| Washington | 1% | 1% | 1% |
| Others [‡] | 13% | 14% | 10% |
| Total % | 100% | 100% | 100% |

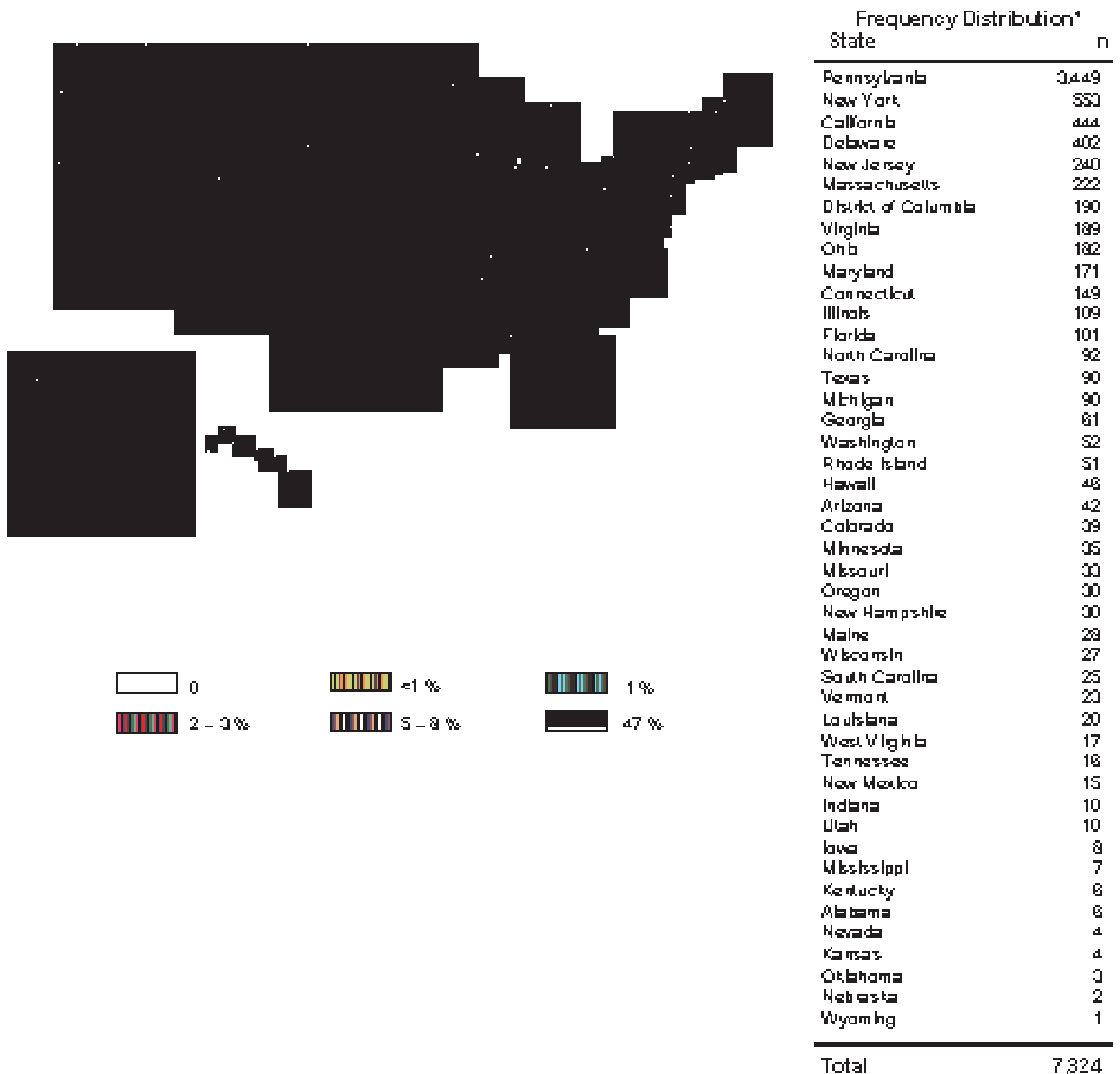
Source: American Medical Association.

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

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

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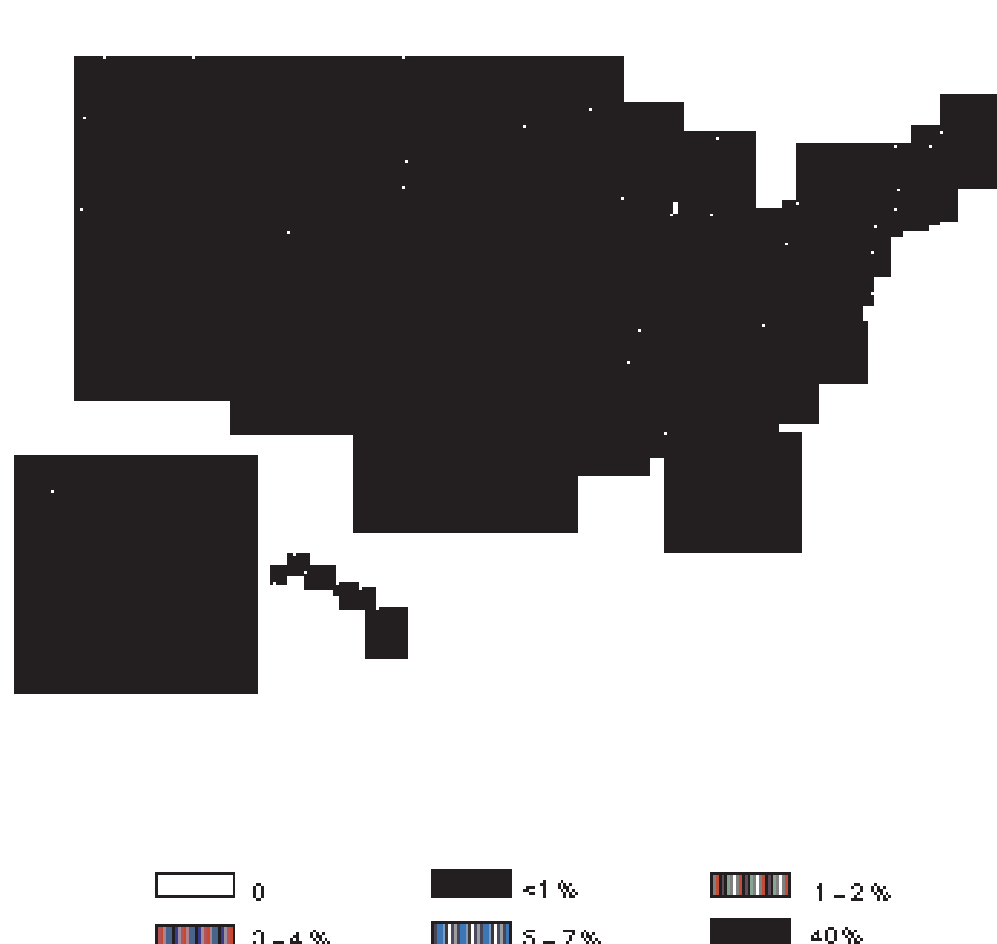
Figure 13
Location of Postgraduate Education for
Graduating Classes of 1970 - 2004^{*}



^{*} Sources: National Residency Match and Jefferson Alumni Office.

^{*} There were 90 graduates who pursued their residency in Canada or other countries, or pursued research or deferred their residency in this time period.

Figure 14
Current State of Residence of Living Alumni*
 Graduating Classes of 1970 - 1999



| Frequency Distribution ¹ | |
|-------------------------------------|--------------|
| State | n |
| Pennsylvania | 2,511 |
| California | 429 |
| New Jersey | 412 |
| New York | 358 |
| Delaware | 205 |
| Maryland | 200 |
| Massachusetts | 211 |
| Florida | 195 |
| Virginia | 175 |
| Ohio | 108 |
| North Carolina | 107 |
| Texas | 101 |
| Connecticut | 94 |
| Illinois | 94 |
| Georgia | 78 |
| Washington | 70 |
| Arizona | 60 |
| Michigan | 59 |
| District of Columbia | 58 |
| Colorado | 50 |
| Hawaii | 40 |
| Minnesota | 38 |
| Rhode Island | 37 |
| Missouri | 30 |
| Oregon | 28 |
| Indiana | 28 |
| New Hampshire | 27 |
| South Carolina | 27 |
| Tennessee | 26 |
| Wisconsin | 25 |
| Louisiana | 25 |
| Maine | 24 |
| Vermont | 24 |
| West Virginia | 19 |
| New Mexico | 18 |
| Kentucky | 18 |
| Alabama | 10 |
| Nevada | 10 |
| Iowa | 12 |
| Utah | 11 |
| Kansas | 10 |
| Mississippi | 9 |
| Oklahoma | 7 |
| Montana | 6 |
| Alaska | 5 |
| Arkansas | 5 |
| Nebraska | 5 |
| Wyoming | 5 |
| Idaho | 0 |
| North Dakota | 0 |
| South Dakota | 1 |
| Total | 6,202 |

¹ Sources: American Medical Association.

² A total of 12 alumni residing in foreign countries, 0 in Puerto Rico, and 0 in U.S. territories are not included.

Figure 15
Program Directors' Ratings in the First Postgraduate Year*
Graduating Classes of 1978 - 2003



* Approximately 75% of the graduates are represented in the figures.
Program directors rated the graduates on a 4-point Likert Scale comparing them with all graduates they ever supervised.

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Table 5
Full-Time Salaried Medical School Faculty Appointments of Alumni
Graduating Classes of 1970 - 2000 (n=6,54)*

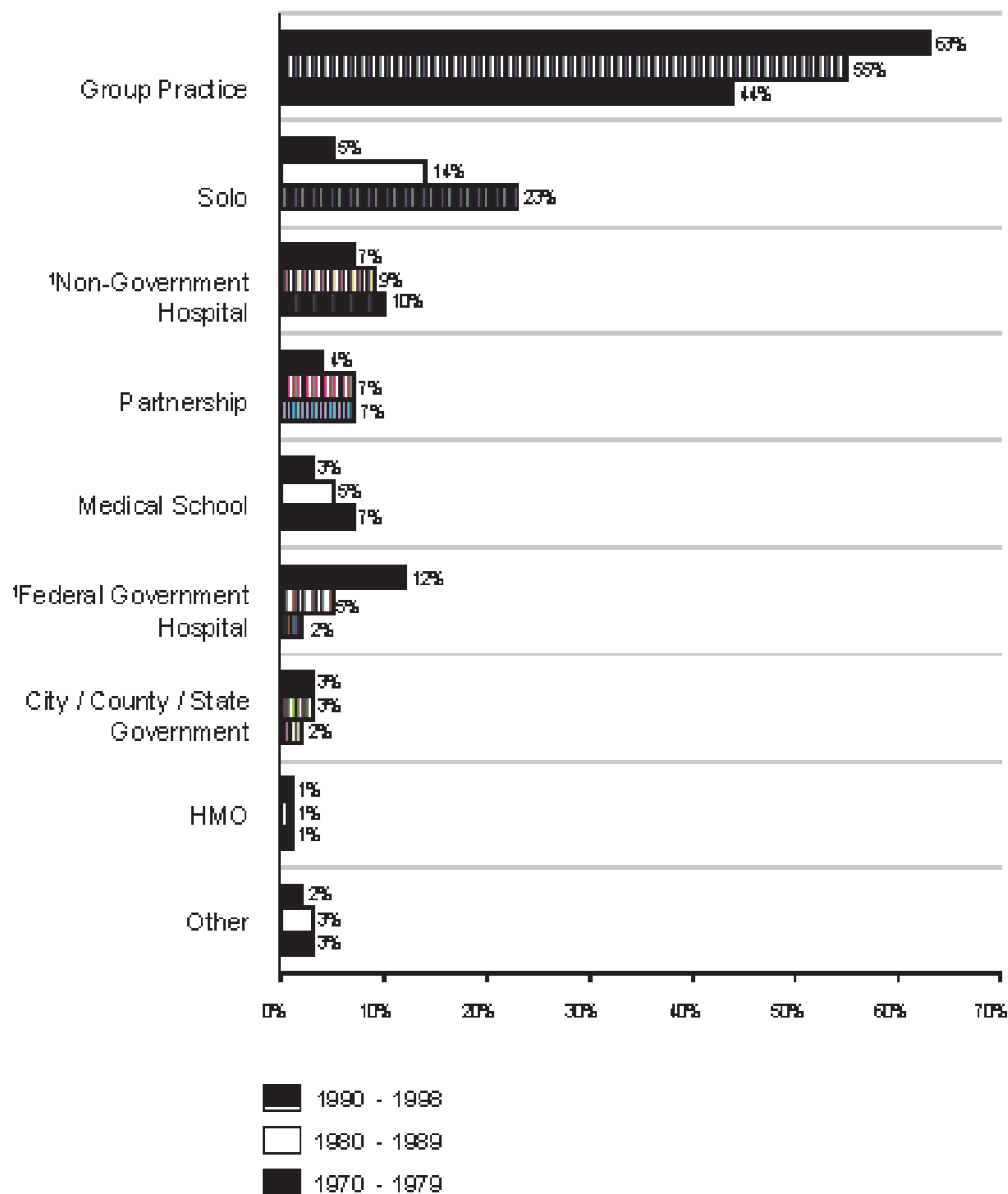
| Medical School | N ¹ | Medical School | N ¹ |
|----------------------------------|----------------|---|----------------|
| Jefferson Medical College | 98 | East Carolina University | 4 |
| University of Pennsylvania | 66 | Baylor College of Medicine | 4 |
| Harvard Medical School | 33 | University of Utah | 4 |
| University of Pittsburgh | 28 | University of Vermont | 4 |
| Drexel University | 28 | University of Cincinnati | 4 |
| UMDHJ-Piscataway | 28 | University of California - San Diego | 4 |
| Pennsylvania State University | 26 | Mt. Sinai Medical School | 4 |
| Temple University | 21 | New York University | 4 |
| Mayo Medical School | 19 | University of Georgia | 4 |
| Uniformed Services | 17 | University of Indiana | 4 |
| Johns Hopkins | 14 | University of Southern California | 4 |
| University of Maryland | 14 | University of Oklahoma | 4 |
| Albert Einstein University | 14 | University of California - Irvine | 4 |
| Yale University | 11 | East Tennessee | 4 |
| Emory University | 10 | University of Iowa | 4 |
| Tufts University | 10 | University of South Florida | 4 |
| University of Rochester | 9 | Medical College of Wisconsin | 4 |
| Cornell University | 9 | University of Massachusetts | 4 |
| University of Michigan | 9 | University of Alabama | 3 |
| University of Virginia | 9 | Rush Medical College | 2 |
| Columbia University | 9 | University of Southern California | 3 |
| University of Florida | 8 | University of Arkansas | 3 |
| University of Colorado | 8 | University of Tennessee | 3 |
| Boston University | 8 | Eastern Virginia | 3 |
| University of Wisconsin | 7 | Wright State University | 3 |
| University of New Mexico | 7 | University of Minnesota / Minneapolis | 3 |
| Georgetown University | 7 | Southern Illinois University | 3 |
| Northwestern University | 7 | Tulane University | 3 |
| Case Western Reserve University | 7 | University of Miami | 3 |
| George Washington | 6 | Texas at Galveston | 3 |
| Virginia Commonwealth University | 6 | Oregon Health Sciences University | 3 |
| University of Chicago | 6 | University of Louisville School of Medicine | 2 |
| UMDHJ - Newark | 6 | Medical University of South Carolina | 2 |
| New York Medical College | 6 | University of Missouri - Kansas City | 2 |
| University of Connecticut | 6 | Saint Louis University | 2 |
| Northeastern Ohio Universities | 6 | West Virginia University | 2 |
| Dartmouth Medical School | 6 | Merced University | 2 |
| Brown University | 6 | SUNY - Upstate - Syracuse | 2 |
| University of Texas - Dallas | 6 | University of California - San Francisco | 2 |
| Bowman Gray School of Medicine | 6 | University of Illinois | 2 |
| University of Washington | 5 | University of Missouri - Columbia | 3 |
| Duke University | 5 | University of Puerto Rico | 2 |
| UCLA | 5 | Washington University - St. Louis | 2 |
| University of California - Davis | 5 | Wayne State | 2 |
| SUNY - Stony Brook | 5 | Albany Medical College | 2 |
| Vanderbilt University | 4 | Loma Linda University | 2 |
| SUNY/Buffalo | 4 | University of Nevada | 2 |
| University of Arizona | 4 | Stanford University | 2 |
| Ohio State University | 4 | University North Carolina - Chapel Hill | 2 |
| University of Kentucky | 4 | Schools with one Jefferson graduate | 11 |
| | | Total | 808 |

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

* Approximately 12% of the graduates had a full-time salaried faculty appointment at some point during the past five years.

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Figure 16
Current Practice Setting of Alumni*
Graduating Classes of 1970 - 1998



* Source: American Medical Association. Data on current practice setting were available for 70% (n=4,202) of the alumni in this time period.

† Graduates in residency programs are excluded.

Table 6
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 |

* From the graduation questionnaire of the Jefferson Longitudinal Study asking medical students the extent of their 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 80% to 94%.

Table 7
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 |

¹ From the graduation questionnaire of the Jefferson Longitudinal Study
Response rates ranged from 80% to 94%.