SOCIETY FOR ACADEMIC
CONTINUING MEDICAL EDUCATION

Survey for 2006

Descriptive Results

Collected August 2006
and including program data for 2004–05

Prepared by the Survey Subcommittee
of the Research Committee

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Executive Summary

Medical School CME units and personnel share an overall mission to ensure that high quality CME programs are developed and produced. The results of the biennial surveys continue to demonstrate diversity across medical schools in the types and amounts of programming and in organizational and operational arrangements for CME units and CME personnel. The intent of the survey is not to produce an overall integrated view of CME units and their activities, but to highlight areas and issues of particular interest.

SACME currently has members at 104 of the 142 medical schools in the United States and Canada. Survey forms were completed for 63 schools. The institutional response rate of 61% is typical across previous surveys. Although the medical schools responding to past surveys and the present survey are not identical, a general assumption is made that they are sufficiently similar for comparisons to be made between current data and parallel data reported previously.

A general trend in the results of the 2006 survey is a relative stability of findings, with many similar to results two years ago. Summarized below are major findings regarding topics in this year's survey.

Current trends. Modest increases are reported for the quality of courses. Modest decreases are reported for support from both commercial companies and the university. For the other items (e.g., courses for external participants, CME credits (hours) certified, attendance, faculty interest in CME, time between registering and course date), the overall trend is close to no change, with some individual institutions experiencing changes in both decreasing and increasing directions.

When looking at trends across years, the patterns tend to be somewhat consistent for most measures. The most variability is in financial support from commercial companies, with the current downward change larger than any previous change on this measure. The quality of courses generally increases. Two measures show no current change, in contrast to previous trends for slight increases: number of courses and faculty interest in participating in their school's CME. Generally stable are the number of external physicians per course, attendance at "pleasure" locations, and faculty interest in participating in other sponsor's CME. Generally decreasing are financial support from the university and the advance time for registration.

Programs and attendees. Regarding live, in person courses for external physician attendees, in 2004–05 the typical (median) medical school produced 83 courses with 717 hours of credit and had an annual attendance of 2,788 physicians and 1,582 other participants. Each of these numbers is a slight increase or decrease from two years ago.

Other forms of live CME for external audiences vary in their prevalence across medical schools. Just under half (44%) of medical schools arrange presentations at county medical societies and local hospitals. A quarter (27%) of schools offer individual tutorials or traineeships. A minority of medical schools broadcast live conferences by telephone or television (25%) or by Internet (13%). These numbers have been consistent in recent years.

Regarding self-study CME activities, 80% of medical schools offer self-study activities: 68% Internet, 56% in written form, 51% computer disks, 27% video or audio. Schools that offer self-study activities typically produce fewer than ten self-study activities per year. The number of schools producing self-study activities did not change appreciably in recent years, but the number of activities by Internet and computer disc are increasing and the number by written material and by video and audio appear to be decreasing.

Virtually all schools designate credit for some ongoing multiple session internal activities such as grand rounds. The median is 49 activities totaling 1,060 credits, with schools varying widely. These are increases over past years. The majority of schools designate credit for a few single occasion internal activities. The median is two activities totaling 5 credits, which is stable over years.

Course fees. The usual fee per credit hour ranges widely across medical schools. Fees for courses at the institution's primary location (median of $19/credit) are similar to recent years. Fees for courses at "pleasure" locations (median of $27/credit) are also similar to recent years. For enduring materials the median charge is $5 per credit.

Faculty honoraria. For local faculty at "home" courses, 45% of the schools pay no honorarium. Honoraria are sometimes paid at 36% of the medical schools – a median payment of $450 when sufficient course income is available. Honoraria are usually paid at 19% of the schools, with a median payment of $260. For local faculty at courses in "pleasure locations," 49% of medical schools do not pay honoraria, 16% pay sometimes (median $500), and 33% pay usually (median $1,000). The percent of schools that do not pay honoraria has decreased slightly. When honoraria are paid, some of the amounts have increased.

For guest faculty the median honorarium payment is $1,180, with schools having typical payments that range from $500 to $2,000. The results were generally similar for courses at the institution's primary location and at resort locations. These amounts are slightly higher than the amounts reported four years ago.

Characteristics and salaries of "Directors of CME." The role of the "director" was defined as the person with immediate responsibility for the overall CME program. For the individual with this role, information about several characteristics was obtained. On education level, 2% are high school graduates, 15% have bachelor's degrees, 53% have master's degrees, 13% have doctoral degrees, and 17% have medical degrees. On gender, 71% are women. The median years of work experience is 27 years, with a median of 11 years of CME experience. For actual title of person, individuals who are high school graduates or have bachelors degrees tend to be Associate Directors or Directors, individuals with masters degrees are usually Directors, individuals with doctoral degrees are Directors or Assistant/Associate Deans, and physicians are usually Assistant/Associate Deans or Directors. For 86% the primary work responsibility is being "Director of CME." While this is the primary job responsibility for most non-physicians, the majority of physicians do not have "Director of CME" as their primary job responsibility. The number of staff supervised in the CME unit varies widely (from 1 to 35) with a median of 7 members.

Comparing 1990 to 2006, the largest shifts are the reduction in the number of physicians from 41% to 17%, the reduction in the number with doctoral degrees from 30% to 13%, and the increase in the number with master's degrees from 23% to 53%, probably reflecting the increase in day–to–day administrative responsibilities. The percentage of women has increased from 41% to 71%, particularly at the master's degree level and somewhat at higher education levels. "Directors" are more likely to have being "Director of CME" as their primary work responsibility (from 63% to now 86%), to spend a higher proportion of work time being the "Director" (from 67% of time to now 84% of time), and likely to have a somewhat larger staff (mean increased from 5.0 FTE to now 9.0 FTE).

Salaries of "Directors" were primarily associated with their professional training. The median salary levels were: high school or bachelor's degree, $78,000; master's degree, $70,000; doctoral degree, $94,000, and physician, $180,000. The small sample size within each level of training limits the

interpretation of these values to general indications concerning salary levels. The shifts in salary levels for those with bachelor's degrees and those with doctoral degrees are likely affected by appreciable changes in sample size within these groups across recent years.

CME unit financing. Medical school CME units vary greatly in their financing arrangements for CME due to differences across a number of local factors. While the ranges are wide, the median CME unit revenue is $1.4 million with a net surplus of $88,000. Commercial funds are now the largest source of CME revenue (median of $851,000), followed by registration fees (median of $450,000). The other meaningful source of revenue is direct funding from the medical school: 71% of CME units receive it (median $98,000). The majority of medical schools provide office space, central business services (e.g., payroll), and course meeting space at no charge to the CME unit. These additional costs are typically not included in unit expenses.

While individual courses may have a variety of financial arrangements, at 66% of schools a production fee is paid to the CME unit and the course deficits and surpluses go to the cosponsoring department. The production fees vary widely due to the different cost structures across CME units. The median fees are $3,000 for a half day course, $3,900 for a one day course, $4,700 for a two day course, and $8,000 for a three day course. For the 18% of institutions that share course deficits and surpluses with the cosponsoring department, the typical arrangement is a 50%/50% split for both deficits and surpluses. Compared to 1994, more CME units now have fixed fees guaranteed by the cosponsoring department and fewer CME units share in course deficits and surpluses.

Only 20% of CME units have to share a percentage of gross revenue with a higher level institutional unit. Six of these 12 CME units give a percentage of gross revenue to the medical school (median 10%) and three give a percentage to the university (median 5%).

If CME units have a net deficit for the fiscal year, about half (54%) carry forward the deficit to pay off in the next year with most of the other schools transferring the deficit to the institution and start the new year with a zero balance. If CME units have a net surplus for the fiscal year, a somewhat larger number (66%) would carry forward the surplus rather than transfer it to the institution.

Some fees charged by the CME unit. Regarding internal CME activities, virtually all schools designate credit for internal activities such as grand rounds, with 59% of schools charging a fee (median $650) for this service. The majority (71%) of schools provide an annual transcript of internal CME credit to physicians internal to the institution, with 22% of these schools charging a fee (median $25) for the transcript. About half (59%) of schools provide an annual CME transcript to external physicians, with 35% of these schools charging a fee (median $15).

Regarding fees when working with communication companies, 52% of schools designate credit for a "satellite symposium" held with a major society meeting. Two-thirds of these schools have a fixed fee (median $10,000) and the majority of the remaining schools charge a percentage (median 10%) of the budget for the activity. The majority (60%) of schools designate credit for enduring materials produced with communication companies, with fees similar to those for satellite meetings. Of these schools, one-third also typically ask participants to pay an individual credit recording fee (median $20).

Relationships with commercial companies. While medical schools vary widely in the number of courses, the typical (median) medical school received support for 45 courses, which represents 69% of the school's CME activities. Over time both the number of courses offered and the number receiving support have increased, with the percentage receiving support decreasing slightly in the past two years. The typical school received $575,000 in support, representing 49% of the school's course revenue. The amount of support is an increase over four years ago.

The typical school offered two courses supported solely by one company, representing 3% of the school's courses. The number of solely supported courses and the percent of CME courses they represent have both decreased somewhat over the past six years. If commercial support were no longer provided, the typical school would no longer hold 11 courses, representing 23% of the school's courses and a loss of 725 attendees. These are somewhat lower than the amounts reported two years ago.

Some new questions were asked about processes for applying and receiving commercial support, particularly regarding pharmaceutical companies' centralized online applications and the content of letters of agreement. Regarding online applications, the overall pattern is about half of respondents have problems with online applications regarding their ease of use, clarity of instructions, submitting requested budget information, and submitting attachments and other information. The median time to complete an online application is 1 hour, with substantial variation reported across individuals. About 40% have problems "often" or more frequently with companies being timely in signing letters of agreement and companies paying funds in a timely manner.

Regarding letters of agreement, all CME units could sign letters of agreement on behalf of their institutions. However, at approximately half of the institutions the CME unit could not sign clauses that listed the litigation state as other than the institution's state, that required the institution indemnify the funding company, or that required liability insurance.

When CME units process grants for commercial support, 22% of the units charge for this service. At those schools the most common type of charge was a percentage of the grant funds (median 10%).

In the past year a little less than half (41%) of medical schools held commercially funded "satellite" meetings in conjunction with meetings of national specialty societies. The substantial majority (70%) of "satellite" meetings were largely managed by communication companies, involved "little" or "no" problems (85% of schools) with oversight and management, and generally did not appear to reduce funding for regional CME activities (52%, with 30% "don't know"). The results are similar to those four years ago.

This survey asked respondents to rank 20 pharmaceutical companies on a 5–point scale (1 = low to 5 = high) on knowledge of CME requirements and processes, adherence to national guidelines, and ease to work with. The means of scores ranged from 3.2 to 4.4 – all above the midpoint of the scale. A company's score on "knowledge" generally parallel's its score on "adherence." The scores for "ease" were less closely related to the other two measures.

Research in CME units. Research is being performed in 26% of medical school CME units. At about one-quarter to one-third of medical schools, CME unit personnel are involved in each of the following: CME research based in other units, research on other levels of medical education, and research in other units on non–CME topics. At 40% of schools personnel based in other units do CME research. All five Canadian medical schools are involved in all of these aspects of research. The involvement of CME units in research has been relatively stable in recent years, including the typical senior staff time (some time at 20% of schools) devoted to it and the level of funding obtained for it.

Scope of educational responsibilities. At two-thirds (66%) of medical schools the CME unit operats under the title of "Office of CME" or something very similar. Most CME units (83%) report upward through the dean of a medical school. While the majority of units responsible for CME are responsible only for CME, some units have additional educational responsibilities such as faculty development (28%), allied health CE (19%), and pharmacy CE (19%).

Relationship with hospital QI and staff development. The substantial majority (83%) of medical schools have full affiliations with a hospital either owned by the university (29%) or not owned by the university (54%). However only about 30% of CME units are "somewhat" or "a lot" linked with various educational programs at a hospital.

CME content repurposing. In the last year over 75% of medical schools used content from a CME activity in one format (e.g., live presentation) to develop a CME activity in another format (e.g., an enduring material. While the majority of these schools "repurposed" only a few activities, 30% of schools repurposed six or more. Advances in technology facilitate these format transitions.

New formats approved for CME credit (U.S. schools). In 2004 performance improvement and Internet point of care learning formats were approved for CME credit. In the last year performance improvement activities were offered by 24% of medical schools and Internet point of care learning was offered by 5% of schools. While many schools are discussing both formats for future CME activities, institutions are moving more quickly to develop performance improvement activities.

ACCME's updated Standards for Commercial Support (U.S. schools). Respondents were asked to rate their understanding and the difficulty of implementing each of the six new ACCME Standards. Respondents indicated they understood all of the Standards "well", with "resolving conflicts of interest" receiving the lowest rating (81% understood it "well"). Implementing most of the Standards was rated "easy" for single event activities by about 60% of respondents and for regularly scheduled conferences by about 45% of respondents. Exceptions were "resolution of conflict of interest", which only 5% felt was easy, and "content and format without bias", which only about 40% felt was easy. Implementing each of the Standards is more difficult in regularly scheduled conferences than single event activities.

The new Standards are generally perceived to produce "little" or "no" decrease in bias (about 80%), to increase costs "a little" to "somewhat" (66%), and not to decrease the number of CME activities (68%). With limited effect on bias and some increase in cost, the cost-effectiveness of implementing the Standards – at least in medical schools – might be examined further.

Policy issues regarding accreditation and credit (U.S. schools only). Respondents views were sought regarding possible conflicts of interest in the relationship between the ACCME and the AMA. During accreditation reviews the ACCME collects information on behalf of the AMA for the AMA to check compliance with AMA PRA requirements. Almost half of respondents (49%) feel there is an apparent conflict of interest in this practice. Regarding whether the ACCME should provide the AMA with compliance information, about half (47%) were uncertain and 35% believe the information should be provided. The level of uncertain and agreeing responses was similar regarding whether ACCME Board members nominated by the AMA should vote on the accreditation status of medical schools.

Should medical schools offer credit that is the same as the credit offered by other types of organizations that are currently accredited? About 75% of respondents felt that medical schools should offer the same credit as medical societies, about 50% felt the same credit is appropriate for most other types of organizations, and only 25% to 35% felt the same credit was appropriate for companies producing medical journals and textbooks, companies specializing in medical meetings, and insurance companies.

Concerns for the CME programs of medical schools. Medical schools were asked to rate their level of concern regarding 11 issues regarding their overall CME program. The greatest concern was expressed for the increased effort required to apply for and process commercial support. Appreciable concern was expressed for emphasizing physician performance

change and for the availability of commercial support and obtaining it. Somewhat of concern were seven additional issues (e.g., increasing the quality of CME activities, changing the professional expertise of CME personnel, increasing use of technology to deliver CME activities). These concerns and their level of importance provide guidance in developing initiatives to help CME providers.

CME best practices. Nineteen schools listed a total of 34 "best practices". The topics relevant to the overall CME program focused on administration and program improvement. The topics relevant to individual CME activities focused on method of delivery and on outcomes. The individual topics are listed, grouped by topic area. The area of greatest reported activity is innovations in the use of the Internet to deliver CME content and testing (10 of the 34 "best practices").

Introduction

Members of the Society's Research Committee survey CME units at medical schools to collect and disseminate information about policies and practices relating to continuing medical education as carried out by colleges and schools of medicine in the United States and Canada. This survey is intended to fulfill several functions. It provides an overview of programming and attendance for all Society members. It provides newer members with information that might otherwise take several years to acquire through informal discussions. It provides longer term members an update on general information and a clearer understanding of specific activities. For all members it provides the occasion to compare their CME units with those of other schools, to recognize the extent to which they are similar to or different from the other schools, and to suggest ways to improve the functioning of their units.

The survey focuses on continuing medical education for physicians. Many units providing CME also provide continuing education for other health professions. Recognizing the purpose of the Society, the survey does not include information on activities aimed primarily at groups other than physicians. This focus provides information that is more comparable across medical schools.

All attempts to represent reality have limitations. The survey is an excellent way to present aggregate data on a number of dimensions. However, it cannot represent the complex factors operating simultaneously at any one school. The report provides a general perspective. Additional inquiry would be necessary to draw conclusions about any one school.

The limited size of the population – 142 medical schools (126 in the United States and 16 in Canada), 104 of which currently have a member in the Society – and the typical response rate (60 to 80 schools) provides sample sizes with the statistical power to detect only substantial differences on measures that are significant at the .05 level (5 chances in 100 that the observed difference is not random). However, differences of moderate and small size may be important for administrative and policy decisions. Therefore, this descriptive report presents data and discusses them briefly in the context of factors known to be operating in the CME environment. Issues of particular interest are typically addressed in more detail in subsequent articles published in professional journals.

The methods used to collect the data and some comments concerning the representativeness of data are presented below. The descriptive results include three sections that are routinely included in the surveys: current trends, programs and attendees, and course fees. Additional sections have been periodically included in previous surveys and updated results are presented in this survey: honoraria for course faculty, characteristics and salaries of CME directors at medical schools, CME unit financing and fees, financial involvement of commercial companies, and research in CME units. The remaining sections are on topics unique to this survey. The responding institutions are acknowledged at the end.

Methods

The questionnaire was developed by members of the Survey Subcommittee of the Research Committee of the Society. Its content was derived from items in previous surveys of the Society, suggestions of society members to the Research Committee, and suggestions developed by the Subcommittee as they revised the survey content. Items in the survey are described in the results section with the data for the item.

The questionnaire was distributed on July 31, 2006, to the 171 members of the Society working at 104 medical schools and colleges in the United States and Canada. Members were asked to complete and return one questionnaire per institution. On August 25 and again on September 29 a reminder to return the questionnaire was sent by email to members at institutions that had not returned a completed questionnaire. The responses were returned from August through early October, 2006.

Table 1 presents the response rates for the survey. Sixty-three medical schools (61%) returned the survey. As indicated in Table 1, response rates by geographic region ranged from 45% in Canada to 69% in the northeastern United States.

Table 2 summarizes the previous response rates for the biennial survey. The response rate for this survey is typical compared to previous surveys.

Although the medical schools responding to past surveys and the present survey are not identical, a general assumption is made that they are sufficiently similar that comparisons can be made between current data and previously reported data.

TABLE 1. Percent of Institutions Returning the Survey by Geographic Region

	North-East	Mid-West	South	West	Canada	Total
Number of Institutions	26	26	29	12	11	104
Number Returning Questionnaires	18	14	19	7	5	63
Response Rate	69%	54%	66%	58%	45%	61%

TABLE 2. Response Rates for Biennial SMCDCME Surveys

Year	Number Institutions	Number Returned	Response Rate
1986	120	63	53%
1988	120	58	48%
1990	118	72	61%
1992	117	65	56%
1994	114	75	66%
1996	121	89	74%
1998	122	82	67%
2000	112	62	55%
2002	100	74	74%
2004	104	71	68%
2006	104	63	61%

However, trends in the data across time must be interpreted cautiously because some change will be due to differences in the specific institutions returning the surveys across the years.

Some surveys were returned with unanswered items. Some items did not apply to all institutions and some institutions did not complete all the relevant items. A major facto contributing factor was the extent to which the CME unit already keep data in a format similar to that requested by the survey. For example, a significant effort may be required to complete the survey if data for physician oriented programs are not already kept separately from data for other programs, or if attendance data for external and internal participants are not kept separately. Furthermore, if an item was left blank it was not always clear if it meant "does not apply", "zero" or if the item was skipped. As a result, the number of responses on which the data are based varies from item to item and therefore the total number of responding schools is usually presented for each item. Also, median values (50th percentile) are reported when extreme values for a few institutions would disproportionately affect mean values.

Data are generally reported as submitted in the questionnaire. An exception is dollar values reported by Canadian schools, presumably in Canadian dollars. Those values were converted to U.S. dollars by multiplying by .88.

Two time frames are used in presenting data. Some items concern aspects of CME activities over a 12-month period. Information for these items was requested for the last academic year for which data were compiled (typically 2004-05) or other recent annual reporting period used by the institution. Other items asked about operations and opinions at the time the survey was being completed – about August, 2006. The applicable time period is shown when data are presented for more than one year.

Descriptive Results

Current Trends

The survey included a section asking for impressions about current trends for several aspects of CME at medical schools. The information represents the perception of respondents at the time the questionnaire was completed (August, 2006). The distribution of medical schools on the responses is presented in Table 3 along with the data for the same items from previous surveys. The mean response for each item (1 = "decreasing a lot" to 5 = "increasing a lot") is also presented. Given that a mean of 3.0 indicates not change on average, a mean less than 3.0 was interpreted as a downward trend and greater than 3.0 as an upward trend. Many means fall between 2.8 and 3.2, indicating little overall change across medical schools

The number of courses for external physicians is stable overall, but varies across individual schools. In previous years an overall small increase was more typical.

The responses indicate that the number of external physicians per course is overall stable, with variation across individual schools. In most previous years the trend has been slight increases or stable.

Attendance at courses at "pleasure" locations is fairly stable. Across years the trend is for stable or slightly lower attendance at these courses.

Faculty interest for participating in the medical school's CME is stable overall. Across years the trend is for stable or very slightly higher interest.

Faculty interest for participating in CME produced by other sponsors is largely stable and similar to previous years.

Financial support for CME from the university is somewhat lower. The trend over years is gradually decreasing support from the university.

Financial support from commercial companies is decreasing and this year shows the strongest downward trend across the items in this section. Historically, this item has shown increases and decreases, with this being the largest decrease seen.

Quality of courses is viewed as increasing. This continues the trend across years for report towards increasing quality.

Time between registering and the course date is viewed as decreasing slightly. The responses are similar to those in past years, showing a continuing trend to later registration.

An overall summary of current trends is that modest increases are reported for the quality of courses. Modest decreases are reported for support from both commercial companies and the university. For the other items, the overall trend is close to no change, with some individual institutions experiencing changes in both decreasing and increasing directions.

When looking at trends across the past 16 years years, the patterns tend to be fairly consistent for most measures. The most variability is in financial support from commercial companies, with the current downward change larger than any previous change on this measure. The quality of courses generally increases. Two measures show no current change, in contrast to previous trends for slight increases: number of courses and faculty interest in participating in their school's CME. Generally stable are the number of external physicians per course, attendance at "pleasure" locations, and faculty interest in participating in other sponsor's CME. Generally decreasing are financial support from the university and the advance time for registration.

CME Activities and Attendees

Live courses, credit hours, and attendees. Difficulties sometimes arise because people use the same terms to mean different things. Respondents must use terms with common definitions for responses to be comparable. Therefore, this section of the questionnaire began with a page of definitions concerning courses and attendees. The text is reproduced as the Appendix. The defined terms were then used to specify a primary interest in responses concerning live multiple hour and multiple day courses, conferences and seminars oriented to external physicians.

Table 4 presents the distributions of medical schools on the annual number of courses oriented to external physicians, on the category 1 credits designated for these courses, and on the total attendance at these courses by physicians and others external to the institution. The 25th, 50th and 75th percentiles for these variables are shown in Table 5 for nine previous surveys as well as for the current one.

Medical schools vary widely on the annual number of courses oriented to external physicians (Table 4). Table 5 shows a doubling in number of courses from 1984-85 to 1990-91. From then to 1994-95 the number of courses appears to have decreased slightly. In 1996-97 the number of courses returned to the 1990-91 levels and since then has generally increased. The increase in 2004-05 differs somewhat from the report in August, 2006, of overall stability in number of courses that was presented in the first part of Table 3.

As shown in Table 4, the distribution on total course CME credits (hours of instruction) is fairly wide. The 25th, 50th, and 75th percentiles are shown in Table 5. The number of course credits increased until 1992-93, remained fairly stable through 1996-97, then increased in 1998-99 and were at approximately the same (perhaps slightly lower overall) in 2000-01. Since then the number of credits certified is slightly

TABLE 3. Distribution of Medical Schools on Current Trends in Various Aspects of CME

	Year (Reported in February)	Current Trend Is: Decreasing A Lot [1]	Decreasing A Little [2]	No Change [3]	Increasing A Little [4]	Increasing A Lot [5]	Mean [1-5]	Total Schools
Number of Courses for External Physicians:	1990	0%	10%	29%	46%	15%	3.7	70
	1992	3%	16%	28%	50%	3%	3.3	64
	1994	0%	27%	26%	43%	4%	3.2	70
	1996	2%	23%	36%	35%	4%	3.2	88
	1998	2%	21%	24%	42%	11%	3.4	81
	2000	2%	19%	16%	55%	8%	3.5	62
	2002	3%	31%	26%	35%	5%	3.1	74
	2004	0%	16%	24%	46%	14%	3.6	71
	2006	3%	29%	29%	36%	3%	3.1	62
Number of External Physicians per Course:	1990	0%	20%	33%	37%	10%	3.4	69
	1992	2%	19%	43%	35%	2%	3.2	63
	1994	1%	34%	34%	27%	4%	3.0	71
	1996	1%	33%	38%	27%	1%	2.9	88
	1998	1%	33%	27%	36%	3%	3.1	80
	2000	5%	26%	14%	53%	2%	3.2	62
	2002	3%	37%	29%	27%	4%	2.9	73
	2004	3%	25%	28%	35%	9%	3.2	71
	2006	3%	42%	21%	32%	2%	2.9	62
Attendance at Courses at "Pleasure" Locations:	1990	3%	12%	60%	23%	2%	3.1	65
	1992	5%	15%	64%	15%	1%	2.9	61
	1994	10%	21%	47%	21%	1%	2.8	71
	1996	11%	30%	41%	17%	1%	2.7	83
	1998	3%	14%	54%	29%	0%	3.1	79
	2000	5%	11%	63%	21%	0%	3.0	57
	2002	13%	24%	56%	7%	0%	2.6	70
	2004	7%	22%	54%	17%	0%	2.8	70
	2006	0%	26%	57%	15%	2%	2.9	58
Faculty Interest in Participating in Your School's CME	1990	0%	3%	31%	53%	13%	3.8	58
	1992	3%	6%	37%	48%	6%	3.5	63
	1994	1%	12%	41%	36%	10%	3.4	73
	1996	2%	24%	36%	31%	7%	3.2	89
	1998	5%	21%	33%	32%	9%	3.2	81
	2000	7%	16%	34%	37%	6%	3.2	62
	2002	3%	28%	35%	30%	4%	3.0	74
	2004	4%	11%	47%	31%	7%	3.2	71
	2006	3%	22%	47%	23%	5%	3.0	60

(TABLE 3 continues on next page)

TABLE 3 (continued). Distribution of Medical Schools on Current Trends in Various Aspects of CME

	Year (Reported in February)	Current Trend Is: Decreasing A Lot [1]	Decreasing A Little [2]	No Change [3]	Increasing A Little [4]	Increasing A Lot [5]	Mean [1-5]	Total Schools
Financial Support for	1990	6%	21%	54%	16%	3%	2.9	70
CME from University:	1992	9%	25%	52%	12%	2%	2.7	64
	1994	12%	18%	55%	14%	1%	2.7	73
	1996	16%	25%	47%	11%	1%	2.6	89
	1998	11%	10%	59%	18%	1%	2.9	80
	2000	5%	16%	60%	17%	2%	2.9	62
	2002	11%	19%	63%	7%	0%	2.7	72
	2004	24%	21%	43%	10%	2%	2.4	70
	2006	13%	21%	56%	10%	0%	2.6	61
Financial Support for	1990	0%	13%	39%	39%	9%	3.4	69
CME from Commercial	1992	2%	23%	33%	37%	5%	3.2	64
Companies:	1994	16%	39%	23%	19%	3%	2.5	73
	1996	8%	44%	19%	25%	4%	2.7	89
	1998	15%	19%	28%	36%	2%	2.9	81
	2000	2%	22%	20%	51%	5%	3.4	62
	2002	5%	49%	23%	22%	1%	2.6	74
	2004	9%	35%`	18%	34%	4%	2.9	71
	2006	21%	34%	35%	8%	2%	2.4	62
Quality of Courses	1990	0%	0%	28%	55%	16%	3.8	67
for External Physicians:	1992	0%	0%	34%	55%	11%	3.8	64
	1994	0%	4%	25%	58%	13%	3.8	72
	1996	0%	1%	33%	56%	10%	3.8	89
	1998	0%	0%	30%	62%	8%	3.8	79
	2000	0%	2%	28%	57%	13%	3.8	62
	2002	0%	1%	42%	46%	11%	3.7	74
	2004	0%	0%	33%	56%	11%	3.8	71
	2006	0%	0%	52%	42%	6%	3.6	62
Time between registering	1996	13%	21%	56%	10%	0%	2.6	89
& course date:	1998	12%	24%	51%	11%	1%	2.7	78
	2000	8%	28%	50%	11%	3%	2.7	60
	2002	5%	31%	54%	10%	0%	2.7	74
	2004	7%	35%	49%	9%	0%	2.6	71
	2006	2%	30%	51%	17%	0%	2.8	60
Faculty Interest in	1990	0%	5%	55%	33%	7%	3.4	70
Participating in Other	1992	5%	4%	69%	20%	2%	3.1	55
Sponsors' CME	1994	2%	4%	79%	13%	2%	3.1	62
	1996	1%	11%	69%	18%	1%	3.1	78
	1998	4%	7%	66%	20%	3%	3.1	74
	2000	2%	7%	67%	20%	6%	3.2	62
	2002	2%	2%	84%	10%	2%	3.1	59
	2004	0%	4%	80%	14%	2%	3.1	71
	2006	2%	9%	73%	14%	2%	3.0	56

TABLE 4. Distribution of Medical Schools on Annual Number of Courses, CME Hours, External Physician Participants, and Other External Participants

Courses, & Conferences for External Physicians	Medical Schools	Course CME Credits (Hours)	Medical Schools	External Physician Participants	Medical Schools	Other External Participants	Medical Schools
0-19	3	0-199	3	0-999	8	0-999	16
20-39	8	200-399	10	1,000-1,999	13	1,000-1,999	14
40-59	8	400-599	6	2,000-2,999	10	2,000-2,999	11
60-79	9	600-799	12	3,000-3,999	8	3,000-3,999	3
80-99	11	800-999	6	4,000-4,999	6	4,000-4,999	5
100-119	4	1,000-1,199	5	5,000-5,999	2	5,000-5,999	3
120-139	4	1,200-1,399	4	6,000-7,999	6	6,000-7,999	4
140-199	9	1,400-1,599	3	8,000-9,999	2	8,000-9,999	1
200-over	5	1,600-1,799	3	10,000-11,999	1	10,000-11,999	0
		1,800-1,999	2	12,000-15,999	2	12,000-15,999	1
		2,000-over	6	16,000-over	1		
Total Schools	61	Total Schools	60	Total Schools	59	Total Schools	58

Note: Data are for the year from July 2004, through June 2005, or the closest 12 month reporting period.

lower. That the number of courses has increased more than the number of course credits suggests that the number of shorter courses has increased and the number of longer courses has decreased.

The third section of Table 4 shows that attendance by external physician participants also varies widely. Table 5 presents the 25th, 50th, and 75th percentiles for recent surveys. The number of external physician participants increased until 1992-93, was generally stable in 1994-95, then increased since 1996-97 until a decrease in 2002-03 which was stable through 2004-05.

The number of other external participants is not always recorded in a way that is convenient to report. For the courses oriented to external physicians, the last section of Table 4 shows that the number of other external attendees clusters fairly tightly at less than 2,000 at the majority of schools. Table 5 presents the 25th, 50th, and 75th percentiles. Again increases occurred through 1992-93, then an appreciable increase in 1998-99 and a slight increase in 2000-01. In 2002-03 the number decreased somewhat in the low and middle parts of the distribution, while increasing at the upper end of the distribution. This pattern was stable in 2004-05.

Other CME activities. Medical schools can engage in a number of additional CME activities. Data on other formats for "live" CME are presented in Tables 6 and 7. Data on enduring self-study CME activities are presented in Table 8. In these tables the ranges are usually not equal across columns, with ranges selected that reflect natural clustering of responses.

The first section of Table 6 displays the number of presentations at county medical societies and local hospitals that were arranged by the CME unit. Presentations of this type are arranged by just under half of the medical schools, with the number of presentations varying substantially. The results across recent years suggest that fewer medical schools are arranging these presentations.

Some CME units conduct conferences by telephone or television. Prior surveys asked about telephone and televised conferences separately. Since responses have been similar and stable for both modalities, this survey asked for their numbers combined. Table 6 presents the number of medical schools presenting telephone or televised conferences in (a) a single session and (b) in a multiple session series. The substantial majority of CME units are not involved with either single or multiple session telephone conferences. Reviewing similar data in the 2004 survey report, the results appear to be fairly stable across years.

Table 7 presents the total across schools on the number of telephone or televised conferences and the proportion that were two-way interactive. While the majority of single session conferences are two-way interactive, the majority of multiple session (series) conferences are one-way transmission.

In recent years the survey asked about conferences broadcast over the Internet. As shown in Table 6, very few schools are

TABLE 5. Distribution (Quartiles) of Medical Schools on Annual Number of Courses Oriented to External Physicians, CME Hours, External Physician Participants, and Other External Participants

	Reporting Year	25th Percentile	50th Percentile	75th Percentile	Total Schools
Number of Courses for	1984-85	16	32	52	47
External Participants:	1986-87	22	34	56	56
	1988-89	29	46	60	61
	1990-91	30	61	100	61
	1992-93	32	57	94	71
	1994-95	31	50	78	84
	1996-97	32	61	96	81
	1998-99	34	67	104	61
	2000-01	48	70	109	71
	2002-03	38	65	109	70
	2004-05	49	83	127	61
Number of CME	1988-89	257	415	653	59
Credits (Hours) Certified:	1990-91	284	468	944	60
	1992-93	314	554	1,114	72
	1994-95	243	507	1,000	82
	1996-97	302	617	1,087	81
	1998-99	477	754	1,540	60
	2000-01	398	786	1,321	69
	2002-03	357	705	1,177	70
	2004-05	439	717	1279	60
Number of External	1988-89	1,000	2,078	3,300	59
Physician Participants	1990-91	1,200	2,039	3,957	61
	1992-93	1,240	2,552	5,000	73
	1994-95	1,273	2,537	4,538	82
	1996-97	1,519	2,815	4,959	81
	1998-99	1,418	3,314	5,481	59
	2000-01	1,437	3,536	5,571	69
	2002-03	1,405	3,248	4,700	70
	2004-05	1,524	2,788	4,711	59
Number of Other	1988-89	350	500	1,000	52
External Participants	1990-91	293	850	1,731	56
	1992-93	400	1,414	2,281	67
	1994-95	517	1,208	2,522	80
	1996-97	445	1,237	2,358	77
	1998-99	792	1,983	3,377	57
	2000-01	927	2,039	3,266	70
	2002-03	886	1,500	3,401	70
	2004-05	895	1,582	3,656	58

TABLE 6. Distribution of Medical Schools on Annual Number of Some Other Types of "Live" Externally Oriented CME Activities

	Reporting Year	0	1-50	51-100	101-200	201-400	>400	Total Schools
Number of School Sponsored Presentations at Local Medical Societies and Hospitals:	1984-85	31%	37%	11%	15%	4%	2%	54
	1986-87	18%	35%	11%	24%	5%	7%	55
	1988-89	25%	33%	22%	8%	6%	6%	72
	1990-91	23%	49%	5%	12%	9%	2%	57
	1992-93	32%	42%	17%	5%	3%	1%	72
	1994-95	38%	39%	4%	13%	4%	2%	53
	1996-97	40%	41%	9%	7%	2%	1%	80
	1998-99	46%	30%	10%	12%	0%	2%	57
	2000-01	46%	35%	13%	6%	0%	0%	71
	2002-03	41%	38%	5%	6%	6%	4%	68
	2004-05	56%	25%	3%	10%	3%	3%	63

	Year	0	1-10	11-50	>50	Schools
Telephone and Televised Conferences*						
Number of Single Session	2004-05	81%	17%	2%	0%	63
Number of Multiple Session	2004-05	75%	19%	4%	2%	63
Internet Broadcast Conferences						
Number of Single Session	1996-97	95%	5%	0%	0%	80
	1998-99	93%	7%	0%	0%	57
	2000-01	93%	7%	0%	0%	71
	2002-03	87%	6%	7%	0%	70
	2004-05	87%	13%	0%	0%	63
Number of Multiple Session	1996-97	95%	5%	0%	0%	80
	1998-99	98%	2%	0%	0%	57
	2000-01	96%	4%	0%	0%	71
	2002-03	92%	8%	0%	0%	65
	2004-05	94%	4%	0%	2%%	63

		0	1-20	21-60	61-300	Schools
Number of Individuals in Tutorials or Traineeships:	1984-85	39%	45%	8%	8%	53
	1986-87	42%	33%	16%	9%	57
	1988-89	46%	33%	16%	9%	72
	1990-91	48%	36%	8%	4%	61
	1992-93	49%	37%	8%	6%	72
	1994-95	54%	28%	9%	9%	80
	1996-97	52%	33%	5%	10%	80
	1998-99	54%	32%	12%	2%	57
	2000-01	68%	24%	5%	3%	71
	2002-03	66%	24%	6%	4%	66
	2004-05	73%	19%	6%	2%	62

* Prior to 2004-05 telephone and televised conferences were reported separately. See 2004 report for data for years 1996-97 to 2002-03.

TABLE 7. Communication Methods for Live Telephone/Televised and Internet Broadcast CME Activities

Type of Activity	Year	No. of Schools	No. of Activities	Two-way Interactive
Telephone or Televised, single session*	2004-05	63	82	60%
Telephone or Televised, multiple session*	2004-05	63	176**	36%
Internet broadcast, single session	1998-99	57	5	40%
	2000-01	71	14	50%
	2002-03	70	119	29%
	2004-05	63	21	48%
Internet broadcast, multiple session	1998-99	57	1	100%
	2000-01	71	3	100%
	2002-03	65	6	50%
	2004-05	63	11	64%

* Prior to 2004-05 telephone and televised conferences were reported separately. See 2004 report for data for years 1998-99 to 2002-03.

** More than half of the activities occurred at one school.

broadcasting live either single session conferences or multiple session conferences by Internet and the number of schools involved has not changed in recent years. The small total number of activities (11 across 63 schools) broadcast by Internet is shown in the lower right side of Table 7. Table 7 also shows that as the number increases, the proportion using two-way interactive connections decreases.

The last section of Table 6 addresses individual tutorials and traineeships. Only a quarter of medical schools offer tutorials or traineeships, usually to a small number of individuals. Results across years suggest an ongoing reduction in the number of schools and individuals involved in this type of CME.

Another form of CME is the self-study course using some type of enduring material. Table 8 presents the distribution of medical schools on the number of self-study courses produced and the number of individuals given credit. Over the years Society surveys have differed in how they collect data on this activity. Early surveys asked about the total number of individuals participating in self-study for credit. The survey for 1992-93 expanded the questions in this area. It also asked for the number of self-study activities developed/produced, asked for the data separately by type of medium (written, audio, video), and added computer based self-study. The survey for 1994-95 further differentiated between computer self-study offered on disk or CD ROM and computer self-study offered by direct connection through the Internet. The current survey combined information regarding audio and video self-study activities.

Table 8 shows that for 2004-05 the substantial majority of medical schools (80%) produced self-study activities in some format. Two-thirds (68%) produced computer self-study via internet. Just over half (56%) produced written self-study. Half (51%) produced computer self-study on disk. Only a quarter (27%) produced either audio or video self-study.

Since 1994-95 the number of medical schools offering Internet CME has increased substantially and the number offering computer disk (CD-ROM) has increased somewhat. Written CME increased, then recently decreased somewhat. Checking previous survey reports, the number offering audio or video CME is decreasing slightly.

The last set of entries in Table 8 show the results for all CME formats combined. The number of medical schools offering one or more formats of self-study CME initially increased, then in recent years stabilized at 80% of medical schools offering self-study CME in some format.

Looking at the number of individuals receiving credit, until recently individuals received self-study credit predominantly through written activities. In 2004-05 the distribution on number of individuals receiving self-study credit via internet increased to approximately match the distribution of the number receiving credit through written self-study.

The survey asked about CME activities oriented primarily to "internal" physicians, i.e. physicians who are faculty of the medical school. Results are summarized in Table 9.

Almost all schools designate credit for ongoing multiple session internal activities like grand rounds. However, schools vary widely on the number of these activities, with a fairly consistent wide distribution over time. Across years the 50th percentile ranges from 30 to 49 multiple session activities, with the increase to the current 49 indicating that the number of multiple session activities has recently increased at many schools. This year the survey asked how many credit hours were designated for these activities. The wide distribution of responses is presented in the upper half of

TABLE 8. Distribution of Medical Schools on Number of Annual Written, Audio, Video, and Computer Self Study Courses and Number of Individuals Receiving Credit for Them

		No. of Activities Produced				No. of Individuals Receiving Credit						
		0	1-10	11-50	>50	0	1-200	201-500	501-1,000	1001-10,000	>10,000	Total Schools
Written Self-Study (including journals)	1992-93	56%	41%	3%	0%	68%	20%	8%	3%	1%	*	71
	1994-95	51%	43%	6%	0%	52%	26%	5%	6%	11%	*	82
	1996-97	46%	46%	8%	0%	51%	26%	8%	4%	11%	*	80
	1998-99	32%	57%	9%	2%	35%	23%	7%	8%	23%	4%	52
	2000-01	38%	40%	22%	0%	45%	25%	6%	6%	18%	0%	71
	2002-03	32%	48%	20%	0%	35%	25%	6%	8%	23%	3%	65
	2004-05	44%	33%	16%	7%	46%	20%	7%	7%	17%	3%	59
Audio or Video Self-Study **	2004-05	73%	24%	3%	0%	75%	18%	2%	3%	2%	0%	60
Self-Study Computer SS: Disk	1994-95	85%	15%	0%	0%	91%	5%	3%	0%	1%	*	80
	1996-97	78%	21%	1%	0%	80%	18%	0%	0%	1%	*	80
	1998-99	69%	29%	2%	0%	71%	17%	0%	0%	0%	2%	48
	2000-01	63%	37%	0%	0%	69%	23%	5%	0%	3%	0%	71
	2002-03	58%	37%	5%	0%	60%	27%	4%	7%	2%	0%	60
	2004-05	49%	44%	7%	0%	52%	26%	12%	8%	2%	0%	60
Computer SS: Internet	1994-95	91%	9%	0%	0%	97%	3%	0%	0%	0%	*	79
	1996-97	75%	25%	0%	0%	80%	18%	1%	1%	0%	*	80
	1998-99	53%	45%	2%	0%	60%	32%	2%	4%	2%	0%	47
	2000-01	47%	40%	13%	0%	61%	19%	10%	7%	3%	0%	71
	2002-03	38%	42%	18%	2%	38%	26%	14%	8%	12%	2%	60
	2004-05	32%	37%	23%	8%	35%	23%	12%	7%	20%	3%	60
All Types of Self-Study Combined	1984-85	(not collected)				67%	17%	7%	5%	4%	*	54
	1986-87	(not collected)				51%	19%	21%	0%	9%	*	58
	1988-89	(not collected)				48%	32%	7%	6%	7%	*	72
	1990-91	(not collected)				55%	24%	3%	8%	10%	*	62
	1992-93	52%	37%	10%	1%	66%	16%	7%	10%	1%	*	71
	1994-95	39%	51%	10%	0%	45%	25%	8%	5%	17%	*	77
	1996-97	28%	51%	23%	0%	30%	39%	10%	5%	16%	*	80
	1998-99	18%	57%	21%	4%	22%	30%	4%	11%	29%	4%	54
	2000-01	20%	44%	32%	4%	29%	25%	9%	8%	29%	0%	70
	2002-03	20%	38%	30%	12%	21%	23%	8%	9%	33%	6%	69
	2004-05	20%	32%	28%	20%	22%	21%	7%	3%	40%	7%	60

Note: Until 1992-93 information was collected only for the total number of individuals receiving credit for all types of self-study.

* Until 1998-99 the highest category for number of individuals receiving credit was >1,000, combining 1,000 to 10,000 and >10,000.

* Prior to 2004-05 audio and video activities were reported separately. See 2004 report for data for years 1992-93 to 2002-03.

TABLE 9. Distribution of Medical Schools on Annual Number of CME Activities Oriented Primarily to Internal Physicians

		0	1-10	11-25	26-75	76-150	>150	50th Percentile	Total Schools
Series/multiple activities (e.g., grand rounds) for credit	1996-97	1%	11%	25%	35%	20%	8%	35	76
	1998-99	5%	18%	24%	33%	12%	8%	30	60
	2000-01	3%	12%	20%	43%	16%	6%	38	68
	2002-03	4%	12%	21%	37%	19%	7%	37	68
	2004-05	2%	8%	20%	39%	23%	8%	49	59
Single occasion activities for credit	1996-97	52%	29%	8%	8%	1%	2%	0	77
	1998-99	33%	41%	12%	10%	2%	2%	2	49
	2000-01	36%	46%	9%	6%	0%	3%	2	66
	2002-03	39%	39%	10%	8%	2%	2%	1	63
	2004-05	44%	29%	9%	10%	6%	2%	2	62

TABLE 10. Distribution of Medical Schools on Annual Credit Hours Designated for CME Activities Oriented Primarily to Internal Physicians

Credit hours designated for internal:		0	1-100	101-500	501-1,000	1,001-5,000	5,001-10,000	>10,000	50th Percentile	Total Schools
Series/multiple activities (e.g., grand rounds)	2002-03	3%	7%	23%	21%	36%	6%	4%	808	67
	2004-05	2%	15%	11%	19%	41%	12%	0%	1,060	58

		0	1-10	11-50	51-100	101-500	501-1,000	>1,000		
Single occasion activities	2002-03	37%	22%	20%	7%	8%	6%	0%	8	63
	2004-05	46%	13%	12%	9%	10%	8%	2%	5	59

Table 10. The increase in 50th percentile value also indicates that more multiple session activities are being designated for credit.

Regarding single occasion internal activities for credit, Table 9 shows that a substantial minority (44%) of the schools indicated “none,” with a 50th percentile value of 2 activities. This pattern is stable over time. The number of credits for these activities is presented in the lower half of Table 10. The distribution is wide, although the typical number of hours designated is small.

Course Registration Fees

The questionnaire asked for the usual registration fee per credit (i.e. per hour of instruction) for courses without unusual outside financial support, separating courses at the primary (home location) from courses at "pleasure" locations. The current survey also asked about fees per credit charged for enduring (self-study) activities. The distribution of responses is presented in Table 11. As in past reports, the fee per credit varies greatly across schools for courses at their primary location and at “pleasure” locations. The fee per credit for enduring materials is typically “no charge” or low.

The extent of change in course fees across the past years is indicated in Table 12. The table presents the 25th, 50th, and 75th percentiles for fees per credit hour from the current and past surveys. The top half of the table shows that for courses at the institution's primary location, fees were relatively stable from 1992 until 2000, with a slight increase since then. The lower half of Table 12 shows that the fee per credit hour for courses at "pleasure" locations has tended to increase somewhat across the years, although they appear stable since 2000.

TABLE 11. Distribution of Medical Schools on Usual Fee Per Credit

Usual Fee per Credit	Distribution for Courses at: Primary Location	"Pleasure" Locations	Enduring Materials (e.g., print, Internet)
$0	3	4	20
$1 to $6	1	0	4
$7 to $9	0	0	1
$10 to $12	3	0	5
$13 to $15	10	3	6
$16 to $18	8	2	0
$19 to $21	12	3	5
$22 to $24	3	3	0
$25 to $27	6	9	3
$28 to $30	5	7	2
$31 to $35	4	11	1
$36 to $40	1	4	0
$41 to $50	0	2	0
$50 or more	2	3	0
Total Schools	58	51	47

TABLE 12. Distribution (Quartiles) of Medical Schools on Usual Fee Per Credit Across Biennial Surveys

	Reporting Year	Usual Fee Per Credit 25th Percentile	50th Percentile	75th Percentile	Total Schools
Courses at Primary Location:	1986	$10	$12	$15	51
	1988	$10	$15	$17	54
	1990	$10	$15	$18	70
	1992	$12	$15	$20	62
	1994	$10	$15	$20	72
	1996	$12	$15	$20	79
	1998	$12	$15	$20	75
	2000	$12	$16	$23	58
	2002	$13	$18	$23	61
	2004	$12	$18	$25	67
	2006	$15	$19	$26	58
Courses at "Pleasure" Location:	1986	$14	$16	$20	45
	1988	$15	$20	$22	46
	1990	$16	$20	$25	57
	1992	$18	$21	$25	48
	1994	$15	$23	$28	64
	1996	$18	$23	$28	64
	1998	$18	$25	$30	67
	2000	$20	$25	$32	50
	2002	$20	$25	$33	57
	2004	$20	$27	$33	61
	2006	$22	$27	$33	51
Enduring materials	2006	$0	$5	$15	47

TABLE 13. Distribution of Medical Schools on Usual Honorarium Arrangements for Faculty of the Medical School Speaking at the Medical School's CME Courses

Program Location	No Honorarium	Some-times (50th Percentile)	Usually (50th Percentile)	"Spouse's" Expenses	Total Schools
School's Primary Location					
1986	70%	13% ($100)	17% ($100)	NA	60
1990	66%	20% ($150)	14% ($100)	NA	64
1994	57%	22% ($400)	21% ($250)	NA	73
1998	58%	22% ($350)	20% ($250)	NA	76
2002	63%	25% ($500)	12% ($250)	NA	72
2006	45%	36% ($450)	19% ($260)	NA	62
"Pleasure" Locations*					
1986	62%	4% ($100)	24% ($100)	10%	50
1990	67%	12% ($200)	14% ($200)	7%	58
1994	58%	17% ($500)	24% ($400)	1%	71
1998	60%	12% ($450)	26% ($500)	2%	69
2002	55%	7% ($500)	33% ($850)	5%	61
2006	49%	16% ($500)	33% ($1,000)	2%	57

*Travel and lodging expenses for the speaker are usually paid.

Faculty Honoraria

Local faculty. The respondents were asked to indicate the usual honorarium arrangements for speakers at typical physician oriented courses, conferences, and seminars. The responses for honoraria payments to local faculty are summarized in Table 13.

The top half of Table 13 presents the results concerning courses at the school's primary location. For courses "at home," almost half (45%) of medical schools pay no honorarium. Another 36% of the schools pay an honorarium "sometimes", typically when course income is sufficient to make payments. For schools paying honoraria "sometimes", the honorarium, when paid, ranged from $250 to $1,000, with a median of $450 (shown in parentheses in Table 13). The remaining 19% of schools usually pay an honorarium to local faculty. The usual payment ranges from $100 to $1,000, with a median of $260.

Compared to previous years, the proportions paying no honoraria, honoraria sometimes, and honoraria were generally stable from 1990 to 2002. In 2006 the proportions changed, with a decrease in schools paying no honoraria and increases in schools paying honoraria sometimes and usually. When payments are made "sometimes", the amount of payment has increased somewhat over the years, but has been stable recently. The amount of payment made "usually" has not changed appreciably over the years.

The lower half of Table 13 presents the results for honoraria payments associated with courses held at "pleasure locations" away from the local area. Compared to the school's primary location, fewer institutions responded concerning honoraria for courses at "pleasure locations," presumably because some CME units do not offer courses at such locations.

Half of schools (49%) do not pay an honorarium or remuneration other than travel and lodging expenses. Across the years the proportion of schools not paying honoraria has slowly decreased while the proportion of schools paying honoraria "usually" has slowly increased. When honoraria are paid "sometimes," the amount ranges from $500 to $1,500, with a median of $500. The most frequently given reason for making the payment "sometimes" is "when funds are available." When honoraria are paid "usually," the amount ranges from $250 to $2,000, with a median of $1,000.

Across the years the size of honoraria has increased as shown in Table 13, with the amount not changing in recent years for honoraria paid "sometimes" and the amount increasing across years for honoraria paid "usually." Instead of an honorarium, a few schools pay for the travel expenses of a spouse to accompany the faculty member to "pleasure" locations. The number of schools paying for expenses of spouses is low, presumably because these payments are likely to be taxable as additional income under Internal Revenue Service regulations.

TABLE 14. Distribution of Medical Schools on Usual Honorarium Paid to Guest Faculty at the Medical School's CME Courses

Year	Honorarium Amount										"Spouse's" Expenses	Total Schools
	$0-$200	$301-$400	$401-$600	$601-$800	$801-$1,000	$1,001-$1,200	$1,201-$1,400	$1,401-$1,600	$1,601-$2,500	50th Percentile		
School's Primary Location												
1986	34%	45%	17%	2%	2%	0%	0%	0%	0%	$300	NA	58
1990	5%	46%	35%	14%	0%	0%	0%	0%	0%	$400	NA	63
1994	5%	33%	24%	27%	17%	0%	3%	1%	0%	$500	NA	69
1998	0%	8%	19%	32%	32%	1%	4%	3%	1%	$750	NA	76
2002	3%	2%	13%	14%	39%	2%	11%	13%	3%	$1,000	NA	68
2006	0%	0%	7%	6%	31%	3%	13%	26%	14%	$1,150	NA	55
"Pleasure" Locations												
1986	29%	28%	27%	2%	4%	0%	0%	0%	0%	$350	10%	43
1990	9%	27%	32%	13%	11%	2%	0%	0%	0%	$500	6%	47
1994	3%	32%	25%	26%	20%	0%	3%	0%	0%	$625	2%	59
1998	0%	18%	20%	33%	30%	2%	0%	9%	0%	$750	1%	67
2002	6%	2%	11%	11%	39%	0%	9%	11%	11%	$1,000	3%	54
2006	6%	0%	10%	4%	22%	4%	12%	26%	16%	$1,250	0%	50

Note: Travel and lodging are also paid.

Guest faculty. The survey also asked usual honoraria arrangements and amounts for guest faculty at typical physician oriented courses, conferences, and seminars. An honorarium is virtually always paid to guest faculty. However, medical schools vary widely on the typical honorarium amount paid to guest faculty.

The top half of Table 14 presents the results for the school's primary location. Honoraria range from $440 to $2,500 with a median payment of $1,150. The median payment has increased over time.

The lower half of Table 14 presents the results for courses at "pleasure locations." Honoraria payments range from $500 to $2,500 with a median amount of $1,250. Across years the median payments at "pleasure locations" have generally paralleled payments at the school's primary location.

Characteristics and Salaries of "Directors of CME"

While the Society membership is composed of a variety of individuals related to CME units in medical schools and in other organizations, the core membership is the "medical school directors of CME." A section of the survey attempted to characterize this group. Also, the Association of American Medical Colleges regularly collects data of salaries of medical school faculty and these data are regularly published in aggregate form to provide norms for review. These data are not routinely collected for directors of CME units in medical schools. An additional objective of this section was to collect and make these data available. These data have been collected every four years since 1990.

The first step was to identify who is the director of CME at each institution. The answer is fairly clear at many institutions. But at several institutions more than one person shares part of the responsibility for the CME program and more than one level of responsibility is designated. Therefore the survey included a functional description of the role of the CME director to help institutions be consistent in identifying the person to whom the questions would apply. The description and relevant instructions are quoted below.

> "The Director of CME is directly responsible for the day-to-day administration, supervision, and coordination of the CME unit and CME offerings for the medical school. The role usually involves a substantial portion (if not all) of the Director's professional time. The Director should not be confused with a Director's supervisor, usually an Assistant or Associate Dean who is responsible for broad oversight of a number of functional areas in addition to CME and devotes (or purports to devote) a small percentage of time to CME concerns. Also, the Director should not be

TABLE 15. Distribution of Medical Schools on Educational Training of "Director of CME"

Educational Training	1990	1994	1998	2002	2006
High School	0%	8%	9%	7%	2%
Bachelor	9%	10%	7%	3%	15%
Master	23%	29%	37%	46%	53%
Doctorate	27%	31%	30%	27%	13%
Physician	41%	22%	17%	17%	17%
Total schools	66	73	81	71	60

confused with someone (usually supervised by a Director) who may be responsible for production of specific CME activities, but who is not responsible for overall direction of the collection of CME activities of the medical school. (If you are still unsure, the Director is typically the person who attends the reaccreditation reverse site visit with the ACCME and both understands the questions the reviewers ask and can answer them correctly.)

"After considering the above attempt to identify the person who fulfills the role of 'Director,' a few institutions may conclude that the role is not performed by one clearly identifiable individual at your medical school - - at least in so far as being a major determinant of one individual's salary is concerned. For example, the CME structure may be sufficiently decentralized that the functional role is distributed across a variety of people or the CME activities may be so few that the role is not a major portion of anyone's activity. If no one individual can be identified, please write a short explanation of your situation and go on to the next section. Everyone else, please tell us about your 'Director'."

Characteristics of the "Director." The survey included eight questions about characteristics of the "Director" and the "Director's" job. Four questions concerned the personal background of the "Director": educational training, gender, total years of work experience, and years of work experience in CME. Three questions concerned job characteristics: the actual job title, whether being "Director" was the person's primary work responsibility, and the percent time the person allocated to being "Director". One question concerned the CME unit: the number of staff in the unit. (Data on annual number of CME courses and attendance were also available in the survey.) One item concerned regional variation in salaries: how salaries in that medical school compared with those in other geographic areas.

Distributions on each characteristic were examined as well as associations across characteristics. Several characteristics were associated, with the measure of educational training having the strongest relationships with other variables. For this reason the data concerning other characteristics will be presented by educational training level. Differences associated with educational level were also found in previous years. Data in those reports were also presented by educational training level.

The information on educational training is presented in Table 15. Individuals at all levels of training were identified as "Directors," with the majority (53%) having master's degrees. Three shifts in educational training are observable across time:

- Medical degrees/physicians: their proportion decreased from 41% to 17%, primarily between 1990 and 1994.
- Doctoral degrees: their proportion decreased from about 30% to 13%, primarily between 2002 and 2006.
- Masters degrees: their proportion increased from 23% to 53%, with the shift occurring steadily over time.

These shifts probably reflect the increase in day-to-day administrative responsibilities associated with both the increased number of CME activities (compare 1988-89 to 2000-01 in Table 5) and increases in administrative and documentation work associated with requirements for CME accreditation.

While the numbers are small, it is interesting to note that physicians are more likely to be "directors" in Canada than in the U.S. In Canada, two of the five (40%) "directors" are physicians; in the U.S. 8 of the 55 (15%) "directors" are physicians.

The distributions for eight other characteristics of "Directors of CME" are presented by education level in Table 16.

Section (a) of Table 16 presents the distribution on gender. In 2006 71% of the "Directors of CME" are women, up from 66% in 2002, 62% in 1998, and 45% in 1994. However, the distribution of gender differs appreciably by level of education. Women are more numerous among individuals with formal education at the high school, bachelors, and masters levels. Until this survey men were more numerous than women at the doctoral level; now they are equally represented at this

TABLE 16. Distribution of Medical Schools on Characteristics of "Director of CME" by Educational Training

	(a) Gender of "Director of CME"		Total	(b) Years of Work Experience				Total
	Male	Female	Schools	1-5	6-10	11-30	31-50	Schools
High School & Bachelor	1	9	10	0	0	9	1	10
Master	6	26	32	0	0	22	8	30
Doctorate	4	4	8	0	0	5	3	8
Physician	6	3	9	0	1	6	3	10
All Levels	17	42	59	0	1	42	15	58

	(c) Years of CME Work Experience					(d) Actual Title of "Director of CME"				
	1-5	6-10	11-20	21-30		Coor-dinator	Associate Director*	Director	Assistant or Assoc. Dean	
High School & Bachelor	3	2	3	1	9	0	3	7	0	10
Master	4	8	13	6	31	0	4	27	1	32
Doctorate	3	1	3	1	8	0	0	5	3	8
Physician	3	4	1	2	10	0	0	4	6	10
All Levels	13	15	20	10	58	0	7	43	10	60

	(e) Is Primary Work Responsibility "Director of CME"?			(f) Percent Time Spent on "Director of CME"					
	No	Yes		1%-20%	21%-40%	41%-60%	61%-80%	81%-100%	
High School & Bachelor	1	9	10	0	0	0	0	10	10
Master	0	30	30	0	0	1	0	30	31
Doctorate	2	6	8	0	0	2	2	4	8
Physician	5	4	9	1	3	6	0	0	10
All Levels	8	49	57	1	3	9	2	44	59

	(g) Number of Staff in the CME Unit						(h) Salaries Compared to Those in Other Regions					
	1-3	4-6	7-9	10-19	≥20		Very Low	Somewhat Low	About Average	Somewhat High	Very High	
H.S. & Bachelor	2	1	2	5	0	10	0	1	5	2	0	8
Master	6	9	5	8	4	32	3	11	7	2	0	23
Doctorate	1	3	0	3	1	8	0	3	4	0	0	7
Physician	2	3	1	1	2	9	0	2	6	1	0	9
All Levels	11	16	8	17	7	59	3	17	22	5	1	47

* Grouped under "Associate Director" are several related titles, e.g., Administrative Director, Executive Director, Manager.

education level. More male directors have medical degrees. This pattern has appeared in previous years, although the proportion of women at the doctoral and physician levels is increasing. Underlying the major change in gender representation over time is the shift in educational training of "directors" of CME to individuals with masters degrees, with a secondary effect of substantially increasing the proportion of "directors" of CME who are women.

Section (b) presents the distribution on years of work experience by educational training across all individuals. Across all individuals the median is 27 years of work experience, similar to the findings in previous years. Across educational levels the medians are: high school & bachelor, 22 years; master, 27 years; doctorate, 29 years; and physician, 25 years.

Section (c) presents the distributions on years of CME experience. Across all levels of training the median is 11 years of CME experience, similar to the findings in previous years. Across educational levels the medians are: high school & bachelor, 8 years; master, 12 years; doctorate, 9 years; and physician, 7 years.

Section (d) presents the actual title of the person identified as the "Director of CME." Most of the titles were classifiable as either an Associate Director of CME, a Director of CME, or an Assistant or Associate Dean for CME. A few titles were not easily classified and were omitted from this analysis. Individuals with high school or bachelor's degrees are associate directors or directors. Individuals with master's degrees are usually directors. Individuals with doctoral degrees are usually directors or deans. Physicians are usually deans or directors. This same general pattern of association between education level and job title has been found in previous years.

Another job characteristic is the extent to which the individual's primary work responsibility is "Director of CME." The responses to this item are presented in section (e) of Table 16. Across all individuals 86% have this assignment as their primary responsibility, almost identical to the findings since 1994. Most non-physicians have being "Director of CME" as their primary responsibility. The majority of physicians are likely not to have CME as their primary responsibility. This pattern was similar in previous years.

A closely related characteristic is the percent of the person's time allocated to being "Director." The distributions are presented in section (f) of Table 16. As expected, the results closely parallel those in the preceding paragraph regarding primary work responsibility. Across all individuals the mean is 84% of the time, which compares to generally increasing means of 67%, 79%, 82%, and 87% in 1990, 1994, 1998, and 2002, respectively. The means are: high school & bachelor, 100%; master, 97%; doctorate, 79%, and physician, 44%. This pattern is generally consistent with past years.

A characteristic of the "Director's" CME unit is the number of staff in it. The distributions on this characteristic are presented in section (g) of Table 16. Across all individuals the range is from 1 to 35 staff members, with a mean of 9.1 (median of 7). This continues incremental increases over the years, with mean number of staff members being 5.0, 5.5, and 6.2, and 8.0 in 1990, 1994, 1998, and 2002 respectively. As in most past years, differences in staff size were not associated with level of educational training.

The final characteristic concerns general differences in medical school salaries by geographic area. The distribution of responses comparing perceptions of those at the "Director's" medical school with those in other areas are presented in section (h) of Table 16. Across all individuals 83% responded either “somewhat low” or "about average". These results are very similar to those found previously. At all time periods the distributions does not differ by educational training of the "Director." (It appears that almost no one feels that her/his medical school's salaries are above average.)

Salary of the "Director." Two items were asked about remuneration: the annual full time salary of the "Director" and whether the "Director" could earn significant extra income through a bonus or a medical practice plan.

The range of salary levels is presented in Table 17. Looking at the 50th percentiles, the systematic difference in salary by education level is evident. Looking within education level, all of the median salaries had increases in the last four years except for those with doctoral degrees. The decrease at the middle and upper range of doctoral salaries likely reflects the substantial reduction in individuals with doctoral degrees, presumably with many of the more senior (and more highly paid) individuals retiring. For individuals with doctoral degrees, regarding years of work experience in CME, the median dropped from 12 years in 2002 to 9 years in 2006.

As shown in the last column, missing data are most likely for physicians. These omissions may not have serious practical implications. Section (e) in Table 16 showed that being "Director of CME" was the primary work responsibility of fewer than half of the physicians. Their salaries are more likely to be determined by job characteristics other than those associated with their CME responsibilities. The minimum value for physicians is also suspect, since the suspiciously low value may result from a physician responding to “annual full time salary” with the portion of salary associated with CME responsibilities. The results for physicians can be viewed as only a general indication concerning salary.

For all of the educational training categories a related cautionary statement should be made. The sample sizes are small and the results provide only a general indication of salaries and ranges and of factors related to salaries.

It was noted above that educational training was the characteristic most strongly associated with the salary of the "Director.” Educational training (and associated job responsibilities) by itself accounts for the substantial majority of the variance in salaries, with the physician component of education level accounting for much of this variance. A stepwise multiple regression was performed that included all of the characteristics as predictors of salary to see if other predictors could account for significant additional variance in salary. The statistically significant ($\geq .05$) predictors in order of variance accounted for are: physician (76% of variance), doctoral degree (+ 7%), years of total work experience (+ 2%), number persons supervised (+2%), and (5) masters degree (+ 1%). Together these variables accounted for 89% of the variance in salaries (N = 47).

The specific variables identified in the preceding stepwise regression analysis may obscure associations with related variables. When predictors are associated (i.e. confounded) with each other, the stronger predictor accounts for most of their shared relationship to the dependent variable. Several of the predictors were associated with each other: education level, job title, percent time being “Director of CME,” gender, and primary work responsibility. Therefore, the preceding analyses simply suggest factors most strongly associated with salary in this sample.

TABLE 17. Range of Salary of "Director of CME" by "Director's" Education Training

Educational Training of "Director"	Year	Salary					Data for this number of "Directors" [a]
		Min-imum	25th Percentile	50th Percentile	75th Percentile	Max-imum	
High School	1990	---	---	---	---	---	0
	1994	$26,500	$34,000	$34,000	$48,000	$52,000	6 of 6
	1998	$17,000	$32,000	$39,000	$63,000	$64,000	7 of 7
	2002	$38,000	$41,000	$52,000	$63,000	$75,000	5 of 5
	2006	(Only 1 person, combined with Bachelor)					
Bachelor	1990	$25,000	$29,000	$40,000	$46,000	$53,000	5 of 6
	1994	$30,000	$32,000	$38,000	$59,000	$80,000	7 of 7
	1998	$27,000	$35,000	$62,000	$67,000	$68,000	4 of 6
	2002	$50,000	--	--	--	$95,000	2 of 2
	2006	$64,000	$71,000	$78,000	$91,000	$111,000	10 of 10
Master	1990	$20,000	$33,000	$38,000	$48,000	$60,000	14 of 15
	1994	$28,000	$43,000	$50,000	$58,000	$84,000	19 of 21
	1998	$38,000	$48,000	$55,000	$60,000	$83,000	28 of 30
	2002	$39,000	$56,000	$65,000	$74,000	$104,000	33 of 33
	2006	$50,000	$65,000	$70,000	$80,000	$114,000	28 of 32
Doctorate	1990	$23,000	$45,000	$56,000	$65,000	$83,000	15 of 18
	1994	$40,000	$54,000	$63,000	$75,000	$106,000	21 of 23
	1998	$46,000	$60,000	$78,000	$100,000	$140,000	22 of 24
	2002	$51,000	$70,000	$100,000	$123,000	$135,000	19 of 19
	2006	$78,000	$85,000	$94,000	$117,000	$135,000	8 of 8
Physician	1990	$53,000	$95,000	$104,000	$127,000	$155,000	12 of 27
	1994	$83,000	$100,000	$117,000	$150,000	$175,000	9 of 15
	1998	$64,000	$120,000	$150,000	$154,000	$195,000	9 of 14
	2002	$72,000	$121,000	$175,000	$195,000	$280,000	10 of 12
	2006	$175,000	$175,000	$180,000	$195,000	$210,000	6 of 10

[a] The subset of institutions providing salary information of the number indicating the “Director’s” educational training is: 1990, 46 of 66; 1994, 62 of 73; 1998, 70 of 81; 2002, 69 of 71; 2006, 52 of 60.

TABLE 18. Distribution of "Director's of CME” on Possibility of Income beyond Salary by "Director's" Educational Training

Educational Training of "Director"	Possibility of Income Beyond Salary			Data for this number of "Directors"[a]
	None	Up to 25% of Salary	Over 25% of Salary	
High School & Bachelor	8	2	0	10 of 10
Master	30	0	0	30 of 32
Doctorate	8	0	0	8 of 8
Physician	3	0	3	6 of 10

[a] The subset of institutions providing salary information of the number indicating the “Director’s” educational training is 54 of 60.

The final information about salary concerns the potential for income beyond salary. The distribution on this aspect of salary is presented in Table 18 by educational training. This possibility occurs for 50% of physicians (presumably related to clinical work load and potential to share in surplus clinical revenue) and few others.

CME Unit Financing

In the past information on CME unit financing has been collected at an interval of 8 years because arrangements tend to change slowly across institutions. Although information was most recently collected 4 years ago, several SACME members are reviewing the financing of their CME units and requested that current information be obtained in this survey.

One of the more complex and confusing issues across medical school CME units is how they are financed. Institutions vary widely in the economic context and assumptions about CME activities and CME units. For example, a CME unit may be in a highly rated medical school and located in a major metropolitan area that is also a highly rated destination city. In this situation CME activities are likely to generate substantial revenue and this revenue will be used to pay for out-of-pocket course expenses, the operation of the CME unit, indirect costs for supporting services of the university, and other overhead and indirect expenses. In contrast, a CME unit may be in a small medical school located in a fairly sparsely settled area where most of the local community physicians have clinical appointments and attend courses without charge. In this situation CME activities are likely only to generate revenue sufficient to cover out-of-pocket expenses of the activity and the institution may pay for the CME unit and all indirect and overhead costs. Another important factor is whether CME activity production is centralized in the CME unit or decentralized to individual departments. The extent of centralized production can affect the charge structure for producing courses. In a decentralized system much of the revenue and expenses associated with CME activities may go through departmental accounts rather than the CME unit. The extent of centralized control of CME activities can also affect the extent to which the CME unit or the content department assumes risk for financial deficits or potentially benefits from financial surpluses.

The survey asked several questions about CME unit finances: CME unit revenue and expenses, the extent of internal subsidization, financial arrangements for individual courses, payments (revenue "taxes") to the institution and state, and the handling of annual net deficits and surpluses of the CME unit. Similar questions were asked in 1994 and 2002. This descriptive report presents information about each of these areas separately. To understand the financing arrangements for a CME unit at a specific institution, these characteristics, underlying factors, and their interrelationships at the institution would have to be jointly considered in what would effectively be a case study.

CME unit revenue and expenses. For the last fiscal year, CME units were asked how much revenue the unit received from specified sources and how much the CME unit's expenses were. The distribution of responses (in thousands of dollars) is presented in Table 19. The upper portion of the table shows the amount of revenue from sources external and internal to the institution. Almost all CME units receive course fees and funds from commercial companies. Those are the main two revenue sources, with a median of $450,000 in registration fees and a median of $851,000 in commercial support and exhibit fees. The medical school provides funds to 71% of CME units, with a median of $98,000. Other sources of revenue do not occur at the substantial majority of medical schools. However, at a few schools other sources may provide substantial revenue.

Looking at the differences in revenue across years, two trends are noteworthy. The amount of commercial support has increased eight-fold and is now the largest source of revenue for most medical schools. Revenue from registration fees has doubled, yet it has dropped from being the most important source of revenue to being second.

The last three lines of Table 19 summarize the overall revenue, expenses, and net balance for CME units. A tremendous range is evident. Specific interpretations must be made with caution because only the revenue and expenses handled by the CME unit are included. At some schools course revenue and expenses may be handled through departmental accounts rather than the CME unit. Also, as is shown in the next section, some institutions subsidize the CME unit without including these expenses in the financial accounts for the CME unit. The reported data show that CME units have median revenues of approximately $1,700,000, median expenses of approximately $1,300,000, and median a net balance of $88,000, i.e. 5% of gross revenue. (Note: Medians are not additive since different schools may have the median amount on different measures.)

Total revenue, total expense, and net balance have all increased over time. However, the proportions have remained about the same. In both 1994 and 2002 the net balance is 2% of the gross income.

Subsidization by internal sources. Other parts of the CME unit's institution (e.g., medical school, hospital, practice plan, university) may underwrite the CME unit's expenses. When the expenses are paid using internal funds, the funds may be transferred to the CME unit, appearing as revenue and expenses in Table 19. Alternatively, internal sources may pay for expenses directly, with no revenue or expense appearing on the financial accounts of the CME unit.

Information was collected concerning internal support for five types of operating expenses. The left column in Table 20 indicates the five types of expenses. The left half of the table presents the distribution of medical schools on the percent of the expense that was paid by internal funds. At less than half

TABLE 19. Distribution of Medical Schools on the CME Unit's
Annual Revenue (by source), Expenses, and Balance (in thousands of dollars)

	Year	Percent with $0 or Minimum $	25th Percentile	50th Percentile	75th Percentile	99th Percentile*	Total Schools
Revenue from External Sources:							
Registration Fees & Misc.	1994	1%	$89	$225	$541	$1,798	73
	2002	7%	$124	$484	$1,098	$5,715	68
	2006	$3	$178	$450	$1,100	$4,011	58
Commercial Support &	1994	5%	$20	$106	$260	$1,723	72
Exhibit Fees	2002	$6	$165	$534	$1,384	$4,377	67
	2006	2%	$190	$851	$1,789	$15,385	60
Enduring Materials	1994	78%	$0	$0	$0	$60	70
	2002	73%	$0	$0	$6	$150	67
	2006	72%	$0	$0	$0	$239	58
State Gvmt./Public Sources	1994	69%	$0	$0	$8	$227	74
	2002	85%	$0	$0	$0	$150	67
	2006	76%	$0	$0	$0	$634	59
Educational Research	1994	94%	$0	$0	$0	$70	74
	2002	96%	$0	$0	$0	$16	67
	2006	86%	$0	$0	$0	$437	59
Gifts and Other Grants	1994	78%	$0	$0	$0	$41	69
	2002	81%	$0	$0	$0	$100	67
	2006	67%	$0	$0	$5	$121	58
Other Sources	1994	74%	$0	$0	$1	$214	68
	2002	69%	$0	$0	$20	$476	67
	2006	64%	$0	$0	$34	$700	58
Revenue from within the Institution:							
Medical School	1994	26%	$0	$44	$97	$288	74
	2002	40%	$0	$45	$128	$368	68
	2006	29%	$0	$98	$208	$749	62
Affiliated Hospitals	1994	60%	$0	$0	$12	$220	74
	2002	70%	$0	$0	$0	$269	68
	2006	68%	$0	$0	$31	$349	60
Practice Plans	1994	82%	$0	$0	$0	$61	74
	2002	94%	$0	$0	$0	$329	67
	2006	95%	$0	$0	$0	$50	60
Other Instnl. Sources	1994	68%	$0	$0	$6	$137	74
	2002	82%	$0	$0	$0	$585	67
	2006	83%	$0	$0	$0	$800	60
Total Revenue	1994	$7	$283	$642	$1,042	$2,233	68
	2002	$215	$658	$1,474	$2,815	$15,411	68
	2006	$79	$739	$1,681	$3,675	$20,310	60
Total Expenses	1994	$10	$253	$540	$923	$2,183	69
	2002	$125	$529	$1,278	$2,813	$13,471	67
	2006	$50	$732	$1,406	$3,673	19,160	61
Net Bal. (Rev. - Expns.)	1994	-$200	$0	$11	$56	$405	66
	2002	-$250	$0	$28	$193	$2,081	66
	2006	-$282	$2	$88	$448	$2,000	60

Note: The columns do not add because they are percentiles. Schools may rank differently on the measures down the columns.
* In many instances the maximum value was an "outlier" far beyond the other values. For this reason the next-to-highest (99th percentile) value is reported rather than the maximum value.

TABLE 20. Distribution of Medical Schools on
(a) the Percent of Selected CME Unit Expenses That Are Paid by Internal Institutional Funds and
(b) Whether the Internal Funds are Counted in the CME Unit's Finances

Type of Expense	Year	(a) % of Expense Paid by Internal $ 0%	1%-20%	21%-80%	81%-99%	100%	Total Schools	(b) Intrnl. $ in Unit's Finances? No	Some	Yes	Total Schools w Intl. $
CME Personnel Salary & FB	1994	18%	12%	26%	4%	40%	68	9%	4%	87%	45
	2002	9%	8%	26%	7%	50%	54	26%	2%	72%	43
	2006	23%	12%	28%	2%	35%	57	11%	11%	78%	44
CME Unit Equipment	1994	35%	4%	13%	3%	45%	65	19%	9%	72%	32
	2002	16%	4%	18%	2%	60%	45	25%	8%	67%	40
	2006	41%	0%	14%	4%	41%	56	22%	7%	71%	45
CME Unit Office Space	1994	12%	5%	4%	0%	79%	62	55%	2%	43%	44
	2002	5%	2%	6%	2%	85%	61	61%	2%	37%	46
	2006	18%	0%	6%	0%	76%	55	50%	5%	45%	44
Central Services: payroll, time keeping, etc	1994	17%	2%	3%	2%	76%	62	60%	5%	35%	40
	2000	6%	2%	5%	5%	82%	60	73%	2%	25%	48
	2006	15%	4%	5%	0%	76%	54	50%	7%	43%	46
Course Meeting Space	1994	39%	5%	7%	0%	49%	59	68%	4%	28%	28
	2002	16%	4%	9%	4%	67%	51	68%	7%	25%	44
	2006	33%	6%	4%	4%	53%	49	52%	12%	36%	42

of medical schools (35% to 41%) internal funds pay for 100% of the expenses for: the salaries of CME unit personnel and the CME unit's equipment. At half of medical schools (53%) internal funds pay for 100% of the expense of meeting space at the institution for externally oriented courses. At the majority of medical schools (76%) internal funds pay for the expenses for the office space of the CME unit and for the central services (e.g., payroll, time keeping, personnel, purchasing) that the CME unit uses. The number of schools receiving internal funding for these costs increased by roughly 10 percentage points from 1994 to 2002, then from 2002 to 2006 decreased to roughly 1994 levels.

For the half or more of the CME units that are receiving internal funds for these various expenses, are these internal funds included in the finances of the CME unit reported in Table 19? This question is answered in the right half of Table 20. This section of the table concerns only those CME units receiving some internal funds for the specified expense. The majority (78%) of the CME units receiving internal funds for unit personnel are including all of these funds in the unit's finances. The majority (71%) include the institutional funds for unit equipment in their unit's finances. Less than one-half of CME units include institutional funds for office space, central services, and course meeting space in the unit's finances. It appears that for the majority of CME units, some appreciable institutional support was not included in the report of the unit's revenue and expenses in Table 19. From 1994 to 2002 a slightly smaller number of schools included internal funds in reporting the unit's finances. From 2002 to 2006 this trend reversed, with a slightly larger number of schools including internal funds in reporting the unit's finances.

Financial arrangements for individual courses. Across CME units the financial arrangements for individual courses vary tremendously. CME units that are totally subsidized by the institution may retain no funds from CME courses. In producing CME courses, the CME unit may charge a fixed fee per course, per course day, or per course registrant. Alternatively, the CME unit may retain ("charge") a percentage of the course's total revenue, of the course's expenses, or of each registration fee. The handling of net deficits and surpluses also varies greatly, from the CME unit being totally responsible, to the deficits and surpluses being split between the CME unit and a cosponsoring clinical department, to the cosponsoring department being totally responsible. With different combinations of these arrangements in place at various medical schools, a description of financial arrangements for courses is necessarily oversimplified.

Table 21 describes five general types of financial arrangements for courses and the percentage of medical school CME units following each type. Currently the most frequent arrangement (66%) is for a production fee to be paid to the CME unit and

TABLE 21. Distribution of Medical Schools on General Funding Arrangements for Individual Courses

Allocation Arrangement for Course Deficits and Surpluses	Percent of Medical Schools in: 1994	2002	2006
Go to cosponsoring department, with a production fee paid to the CME unit	38%	68%	66%
Split between CME unit and cosponsoring department. (CME unit may also charge a production fee.)	28%	16%	18%
Go to cosponsoring department, with a percentage of the course revenue retained by the CME unit	11%	7%	5%
Remain with CME unit	10%	4%	6%
Other allocation arrangements	13%	4%	5%
TOTAL SCHOOLS	71	69	63

TABLE 22. Distribution of Medical Schools on the Typical Production Fee Charged by the CME Unit, for Schools with CME Units That Charge a Production Fee

Course Length	Year	Minimum	25th Percentile	50th Percentile	75th Percentile	Maximum	Total Schools
One-half Day	1994	(Data not collected)					
	2002	$150	$500	$1,500	$2,500	$5,000	31
	2006	$750	$1,400	$3,000	$4,600	$9,500	26
One Day	1994	$150	$1,000	$1,750	$2,500	$4,000	33
	2002	$750	$1,400	$3,000	$6,000	$12,000	32
	2006	$1,000	$2,000	$3,900	$7,000	$10,000	24
Two Days	1994	$300	$1,200	$2,500	$3,500	$6,000	32
	2002	$1,000	$2,500	$4,000	8,000	$12,000	31
	2006	$1,500	$2,600	$4,700	$8,700	$12,000	25
Three Days	1994	$1,000	$2,000	$3,000	$4,500	$9,000	29
	2002	$1,000	$2,500	$5,500	$9,500	$18,000	29
	2006	$1,500	$3,900	$8,000	$12,000	$20,000	25

Note: These data are for schools where the CME unit charges a production fee and cosponsoring departments retain all course deficits and surpluses. Not included are CME units that only charge a small processing fee (e.g., $100) for all courses. Within a year the production fees have generally similar 25th, 50th, and 75th percentiles for schools where the CME unit charges a production fee and shares course deficits and surpluses with the cosponsoring department.

the cosponsoring department to retain course deficits and surpluses. Over the years the majority of CME units have shifted to this arrangement. These arrangements guarantee funding for the CME unit, removing both the risk of loss and the opportunity for profit that are included with other options.

For the 66% of schools that simply pay the CME unit a production fee (first row of Table 21), the survey asked for more detail about the production fee. At half of these schools the production fee is based on a standard schedule and at the other half the production fee is determined for each course. The specifics of schedules can vary widely, including being based on a fee per course day, a fee per course day plus a fee per registrant, or equal to a percentage (e.g., 20%) of the out-of-pocket course expense. These schools were asked what typical production fees are for mostly lecture courses ranging from 1/2 day to three days. The results are presented in Table 22. The fees range very widely across schools, probably due to differences in institutional revenue provided to the unit and in expenses for which the unit is responsible (see above). The median typical fees by course length are: 1/2 day, $3,000; 1 day, $3,900; 2 days, 4,700; and 3 days, $8,000. Across the 12 years from 1994 to 2006 the fees have approximately doubled.

As shown in the second row of Table 21, 18% of CME units split deficits and surpluses with the cosponsoring department. The survey asked for more detail about financial arrangements at these 11 schools. At eight of these schools the production

TABLE 23. Distribution of Medical Schools on the Percentage of Course Deficits and Surpluses Going to the CME Unit, for Schools that Split Them between the CME Unit and the Cosponsoring Department

	Year	Percentage Going to the CME Unit							Total Schools
		0%	1-20%	21-40%	41-60%	61-80%	81-99%	100%	
Course Deficit	1994	36%	7%	14%	36%	0%	0%	7%	14
	2002	20%	10%	10%	50%	0%	0%	10%	10
	2006	22%	22%	0%	34%	11%	0%	11%	9
Course Surplus	1994	0%	7%	43%	43%	7%	0%	0%	14
	2002	0%	18%	18%	55%	9%	0%	0%	11
	2006	0%	0%	33%	56%	11%	0%	0%	9

work of the CME unit was included as a cost. For those eight schools questions were asked about production fees. As in past surveys, the production fees at these schools were similar to those at schools that do not participate in course deficits and surpluses, which were discussed in the preceding paragraph. At four schools the production fee is based on a standard schedule and at five schools the fee is determined for each course. The survey asked all 11 schools about the percentage of deficits and of surpluses that were retained by the CME unit. The results are presented in Table 23. The most common arrangement is a 50% / 50% split of both deficits and surpluses. The percentage of deficits falling to the CME unit varies widely, from 0% to 100%. The percentage of surpluses retained by the CME unit ranges from 25% to 80%. When deficits and surpluses are shared, across years the general pattern is for the CME unit to receive 50% or less of deficits and profits.

The third line of Table 21 indicates that three CME units retain a percentage of the course revenue. The percent retained ranges from 10% to 15%, similar to the range of 5% to 15% found in 1994 and of 10% to 20% found in 2002. In addition to the percent of revenue, one school charges a $25 fee per registrant and one school charges $1,000 per course day.

The fourth line of Table 21 indicates that at four schools all course deficits and surpluses remain within the CME unit.

The fifth line of Table 21 notes that three schools have “other” allocation arrangements. Two of these schools report that each activity is handled individually regarding financial arrangements.

Other revenue sharing. The CME units were asked if a percentage of the gross revenue usually went to a unit (medical school, university, or state) other than the CME unit or cosponsoring department. Of the 61 responding CME units, 80% did not share revenue with these types of other units. Of the 12 CME units sharing revenue, six give a percentage to the medical school (median 10%) and three give a percentage to the university (median 5%), and one gave 75% to the state. The sharing arrangements are similar the past, e.g., in 1994 87% and in 2002 82% of CME units did not share revenue with these types of other units.

CME unit annual deficit or surplus. What is the disposition of the CME unit's net balance (deficit or surplus) at the end of its fiscal year? The results are presented in Table 24. For an annual deficit, half (54%) of the schools carry forward the deficit and most of the remaining schools transfer deficits to the institution. Most CME units responding in the "other" category were in the fortunate position of never having had a deficit and not knowing what would happen if one occurred. For an annual surplus, the majority (66%) retain and carry forward the surplus, while some transfer it to the institution. Most responses in the "other" category were from institutions that have accounting arrangements that allocate revenue and expenses in ways that do not let the CME unit’s accounts have a surplus. These results are very similar to those found in 1994 and 2002.

Some Fees Charged by the CME Unit

Internal credit designation and transcript fees. The survey updated information asked in 1996 and 2002 about fees for some services provided by CME units. The services and results are presented in Table 25.

Table 25 shows that 59% of schools charge a fee for credit designation for internal CME activities (e.g., grand rounds). Most schools that charge have a fixed annual fee per activity, with a median fee of $650. A few schools have fee schedules that vary with aspects of the activity including the number attending ($500 for credit designation + $10 per registrant for individual credit recording) or number of sessions ($25 per session). Both the number of schools charging a fee and the fee amount increased from 1996 over the years.

The majority (71%) of schools provide an annual transcript of CME credit to physicians internal to the institution. A minority (22%) of these schools charge a fee for the transcript. When charged, the median fee is $25. These results are not greatly changed over the years.

TABLE 24. Distribution of Medical Schools on the Disposition of the CME Unit's Annual Net Financial Deficit or Surplus

	Year	Carried Forward to Next Year	Net Balance Transferred to the Institution	Other	Total Schools
Deficit	1994	41%	45%	14% [a]	71
	2002	47%	46%	7%	70
	2006	54%	38%	8%	60
Surplus	1994	57%	36%	7% [b]	74
	2002	63%	32%	4%	71
	2006	66%	26%	8%	62

[a] For a deficit, most of the "other" responses were "Have not had a deficit" or “Fully funded, can’t have a deficit.”

[b] For a surplus, most of the "other" responses were "Have not had a surplus" or “Fully funded, can’t have surplus.”

TABLE 25. Distribution of Medical Schools on Some Internal Services and Fees of the CME Unit

		Performed?			If Yes, Fee?			If Fee, the Usual Amount			
		No	Yes	N	No	Yes	N	25th %tile	50th %tile	75th %tile	N
Designate credit for internal activities (e.g., grand rounds)	1996	5%	95%	87	76%	24%	84	$30	$150	$300	20
	2002	4%	96%	74	58%	42%	66	$140	$300	$650 [a]	25
	2006	3%	97%	63	41%	59%	59	$400	$650	$900	14
Provide an annual transcript of CME credit to physicians internal to your institution	1996	38%	62%	87	75%	25%	56	$12	$25	$30	13
	2002	28%	72%	72	84%	16%	49	$15	$25	$30	10
	2006	29%	71%	63	78%	22%	50	$15	$25	$40	4
Provide an annual transcript of CME credit to physicians external to your institution	1996	55%	45%	87	55%	45%	39	$10	$20	$30	19
	2002	48%	52%	74	62%	38%	37	$15	$25	$30	19
	2006	41%	59%	63	65%	35%	37	$10	$15	$25	10

[a] See text for description of fees that vary by factors that vary according to the specific activity.

The majority (59%) of schools provide an annual transcript of CME credit to physicians external to the institution. A minority (35%) of these schools charge a fee for the transcript, with a median fee of $15. While the number of schools providing this service has increased somewhat over the years, the schools providing this service are less likely to charge for it.

Fees when working with communication companies. The survey updated and expanded upon information asked previously about working with communication companies. The activities and results are presented in Table 26.

Currently 52% of medical schools designate credit for “satellite symposia” produced by a communications company and held in conjunction with a major medical society meeting. This percentage is fairly stable over time. Of the 30 schools providing information about their fee, 21 schools had a fixed fee to designate credit, with a median fee of $10,000 (see Table 26). The fees almost doubled between 2002 and 2006. Five schools had fees that were a percent of the budget, ranging from 5% to 20%. One school had a fixed charge of $10,000 plus $60 per registrant. The remaining schools indicated their fees varied. These other fee structures generally parallel findings from past years.

The majority (60%) of medical schools designate credit for an enduring material (i.e. CME self-study activity) developed by a communications company, a stable number over the years. Of the 30 schools that providing information about their fee, 19 charge fixed fees that are similar to those for satellite meetings (see Table 26) and showed a similar increase across time. Other schools have fees that parallel the other fees for satellite meetings, for example, 10% of the budget, $2,750 plus $30 per credit request.

TABLE 26. Distribution of Medical Schools on Credit Designation and Fees When Working with Communication Companies

	Year	Performed No	Performed Yes	N	If Fee, the Usual Fee 25th %tile	50th %tile	75th %tile	N
Designate credit for a "satellite symposium" held with a major society meeting?	2000	48%	52%	58	(not asked)			
	2002	41%	59%	73	$3,000	$5,000	$7,500 [a]	23
	2006	48%	52%	60	$5,000	$10,000	$12,000	21
Designate credit for an enduring material	2000 [b]	40%	60%	57	(not asked)			
	2002	33%	67%	70	$3,000	$5,000	$7,500 [a]	24
	2006	40%	60%	60	$5,000	$10,000	12,500	19
Also, if yes, do you typically ask participants to pay an individual credit recording fee?	2000 [b]	9%	91%	34	$10	$20	$20	31
	2002	45%	55%	47	$15	$20	$25	23
	2006	65%	35%	37	$20	$20	$25	10

[a] See text for description of fees that vary by the program budget or number of participants.
[b] Questions asked about commercially funded self-study activities in 2000 and about all self-study activities in 2002.

Rather than building a fee for recording credit into the charge for designating credit for an enduring material, some schools ask individual participants to pay a recording fee. Of those schools that produce enduring materials with communication companies, 35% charge participants a recording fee. Over the years the likelihood of charging a separate recording fee has greatly decreased. Presumably this reflects the transition from handling recording requests by mail or fax to the automation of record keeping that is possible for requests submitted over the Internet. When a fee is charged, the median continues to be $20 (see Table 26).

Financial Involvement of Commercial Companies

An ongoing topic of discussion is the extent to which pharmaceutical, instrument, and other companies provide financial support to CME activities. Over the years several guidelines for commercial support have been announced, including the American Medical Association's Ethical Opinion on Gifts to Physicians from Industry (1991), the Accreditation Council for CME expanded Standards for Commercial Support of Continuing Medical Education (1992), the code of the Pharmaceutical Research and Manufacturers of America (2002), the guidance for pharmaceutical manufacturers from the Office of Inspector General in the Department of Health and Human Services (2003) and the Accreditation Council for CME's updated Standards for Commercial Support (2004). Over the years these external changes have resulted in medical schools implementing a number of policy and operational changes regarding commercial support. Questions about commercial support for courses, conferences, and seminars oriented to external physicians have been asked in SACME surveys every four years starting in 1988. This information was most recently included in the 2004 survey (2002-03 programming year), before the guidance of the Office of Inspector General and the updated Standards affected financial relationships with commercial companies. Information was collected two years later in this survey to assess current status.

Commercial support for CME courses. The distribution of medical schools on (a) the annual number and (b) the percent of courses with financial support from commercial companies is presented in Table 27. Regarding the number of courses receiving support, all institutions received commercial support for several courses, with a wide variation in the number of courses that receive support (Table 27 part a.). Comparing the number of courses receiving support across the years, the trend across years is for medical schools to have a higher number of courses receive commercial support. This is more clearly evident in the first section of Table 31, which shows the 25th, 50th, and 75th percentiles on the number of courses receiving support across the 16 years. The median (50th percentile) number of courses went from 26 in 1994-95 to 45 in 2004-05.

The number of courses produced by an institution with commercial support should also be interpreted in relation to the total number of courses offered by the institution. The percent of an institution's courses with commercial support is presented in Table 27, part b. In 1998-99 more than half of the medical schools reported that 60% or more of their CME courses received commercial support. Comparing the number of courses receiving support across time periods, the trend is for a higher percentage of courses to receive commercial support. This is more clearly evident in the second section of Table 31. Across the 25th, 50th, and 75th percentiles, the 50th percentile (median) of courses receiving support increased from 50% to 70%, with the percentage fairly stable from 1998-99 to 2002-03 and a slight reduction from 2002-03 to 2004-05.

TABLE 27. Distribution of Medical Schools on Number and Percent of Courses with Financial Support from Commercial Companies

Reporting Year	a. Number of Courses with Commercial Support								Total Schools
	0	1-10	11-20	21-40	41-60	61-80	81-150	>150	
1986-87	4%	31%	31%	26%	4%	2%	2%	0%	51
1990-91	7%	14%	28%	29%	5%	10%	7%	0%	58
1994-95	0%	15%	22%	37%	16%	5%	5%	0%	86
1998-99	3%	7%	11%	33%	17%	8%	17%	4%	58
2002-03	0%	15%	13%	24%	20%	6%	18%	4%	67
2004-05	0%	11%	16%	21%	21%	5%	23%	3%	62
	b. Percent of Courses with Commercial Support								
		0%	1%-10%	11%-20%	21%-40%	41%-60%	61%-80%	81%-100%	
1986-87		2%	6%	14%	14%	25%	21%	18%	51
1990-91		6%	7%	10%	17%	17%	30%	13%	60
1994-95		0%	7%	10%	19%	18%	21%	25%	84
1998-99		0%	2%	5%	13%	15%	18%	37%	60
2002-03		0%	2%	8%	8%	22%	21%	39%	67
2004-05		0%	5%	7%	11%	15%	35%	27%	60

What is the magnitude of the financial support? Institutions were asked to take into account financial support paid both to the CME unit and directly to faculty for course expenses and report (a) the approximate total contributed by commercial companies to support courses oriented to external physicians and (b) the approximate percentage of the annual course revenue represented by this dollar amount.

The upper half (part a.) of Table 28 shows that medical schools vary widely on the total dollars received from commercial support. Comparing the dollars received across the time periods, an appreciable increase is evident across time. The magnitude of the change is clearer in the third section of Table 31, which shows the 25th, 50th, and 75th percentiles for the years. The reported total dollars approximately doubles between each four-year period. However, the circumstance underlying the reported increases may differ across the periods. The amount of commercial support going to CME was commonly recognized to be increasing substantially during the late 1980's and the increase from 1986-87 to 1990-91 probably reflects a substantial increase in real funds. In the early 1990's stricter standards for documenting all commercial support were implemented and a substantial amount of previously unreported support began to be documented. At the same time, the amount of commercial support was commonly recognized not to be increasing much. The increase in reported dollars from 1990-91 to 1994-95 is probably predominantly an increase in the amount of documented commercial support rather than an increase in the actual amount of commercial support received. The increases since 1994-95 are probably actual increases in support. Between 2002-03 and 2004-05 the total amount of commercial funding increased, but the increase in this two year period was less than the proportionate increase over the four years from 1998-99 to 2002-03.

Interestingly, the recent increase in reported total amount of commercial support in Table 31 is not consistent with the perceived decrease in commercial support that was reported in Table 3. In part the discrepancy may be due to annual 3% inflationary increases in the Consumer Price Index over years reducing the actual value of some of the increase, although some meaningful absolute increase remains. Another reason may be Table 3 reflected perceptions in August, 2006, almost a year after the data reported for the 2004-05 programming year.

The potential impact of commercial support on a medical school's CME program also depends on its proportion of overall CME income. The lower half (part b.) of Table 28 shows the distribution of medical schools on the percent of course revenue received from commercial support. Again a wide distribution is found across medical schools. Comparing the percent of course revenue from commercial support across the time periods, a meaningful recent increase is evident. The magnitude of change is clearer in the fourth section of Table 31, which shows the 25th, 50th, and 75th percentiles for the

TABLE 28. Distribution of Medical Schools on Total Dollars in Commercial Support of Courses and Percent of Revenue from Commercial Support

Reporting Year	a. Total Dollars from Commercial Support								Total Schools
	$0	$1 to $20,000	$20,001 to $60,000	$60,001 to $100,000	$100,001 to $300,000	$300,001 to $600,000	$600,001 to $1 million	>$1 million	
1986-87	5%	28%	43%	11%	13%	0%	0%	0%	44
1990-91	9%	8%	21%	11%	43%	9%	0%	0%	47
1994-95	0%	1%	12%	23%	29%	24%	8%	3%	81
1998-99	0%	3%	11%	3%	31%	14%	16%	22%	58
2002-03	0%	6%	4%	8%	19%	15%	14%	34%	67
2004-05	2%	7%	6%	5%	20%	11%	20%	29%	55

	b. Percent of Revenue from Commercial Support						
	0% to 10%	11% to 20%	21% to 40%	41% to 60%	61% to 80%	81% to 100%	
1986-87	35%	20%	30%	8%	5%	2%	40
1990-91	17%	36%	33%	5%	9%	0%	42
1994-95	19%	24%	33%	18%	6%	0%	72
1998-99	6%	11%	50%	22%	9%	2%	54
2002-03	14%	6%	26%	28%	18%	8%	66
2004-05	15%	5%	16%	28%	22%	14%	55

years. The 50th percentile (median) for percent of revenue from commercial support continued to increase and is now 49% of a school's CME revenue. [Note: These items concern revenue only for live courses. Revenue data in Table 19 include enduring materials and show a higher amount and percent of commercial support in total CME revenue.]

Course dependence on commercial support. What would happen if this commercial support were removed? Some courses depend on commercial support as the only meaningful source of revenue. For some courses commercial support may not be the biggest revenue component, but it is a necessary component for the course to be viable. For yet other courses, commercial support provides enhancements in quality (more guest faculty, more expensive promotional materials, more expensive food), but the course would still be viable without these enhancements.

The 1994-95 survey was the first to ask for the number of CME courses oriented to external physicians that were "solely" supported by one commercial company (i.e. all or most of the costs were paid by one company with participants paying either no fee or a token fee). The responses are presented in Table 29, part a, and show a wide distribution across schools. Table 31 presents the 25th, 50th, and 75th percentiles of the distribution. Over the years the trend appears to be an increase followed by a modest decreases (50th percentiles of 1, 6, 4, and 2 solely sponsored courses).

Again, it is important to interpret the numbers in the context of the size of the school's overall CME program. Part b. of Table 29 presents the percentage of the school's total number of courses oriented to external physicians that were "solely" supported. For over half of the schools, "solely" supported courses constitute 5% or less of their course offerings, with solely supported courses constituting the majority of CME courses at 7% of medical schools. The change in percent of courses that are solely supported is more clearly presented in Table 31, which shows the 25th, 50th, and 75th percentiles of the distribution. Over the past 10 years the pattern is an increase followed by modest decreases.

What if there were no commercial support? In addition to "solely" supported courses not having occurred, a number of other courses depend on commercial support as a vital component of revenue. A rough estimate of the impact of commercial support on CME programming was obtained by asking: "If no financial support from commercial companies had been available [last year], what is your estimate of (a) the number of courses oriented to external physicians that would not have been held and (b) their attendance?"

Responses to the number of courses that would not have been held are presented in the upper half (part a.) of Table 30. The change is clearer in the next-to-last section of Table 31, which presents the 25th, 50th, and 75th percentiles over time periods. The trend shows an overall increase in the number of courses that would not have been held,. The median of 11 for the most recent period is lower than the more recent previous periods.

TABLE 29. Distribution of Medical Schools on Number of Courses Supported "Solely" by One Commercial Company

Reporting Year	a. Number of "Solely" Supported Courses: 0	1-5	6-10	11-20	>20	Total Schools
1994-95	41%	32%	14%	9%	4%	84
1998-99	13%	36%	22%	14%	15%	61
2002-03	22%	38%	17%	6%	17%	65
2004-05	32%	32%	11%	10%	15%	59
	b. Percent of Courses that are "Solely" Supported					
	0%	1%-5%	6%-10%	10%-20%	21-50%	>50%	
1994-95	42%	28%	11%	8%	9%	2%	82
1998-99	14%	16%	24%	19%	16%	11%	56
2002-03	22%	27%	10%	18%	15%	8%	65
2004-05	32%	24%	14%	15%	8%	7%	59

TABLE 30. Distribution of Medical Schools on Number of Courses That Would Not Have Been Held (and External Attendance) If No Commercial Support

Reporting Year	a. Number of Courses Not Held 0 Schools	1-5	6-10	11-20	21-50	>50	Total
1986-87	27%	32%	22%	14%	5%	0%	37
1990-91	16%	14%	34%	20%	14%	2%	44
1994-95	12%	29%	18%	22%	18%	1%	77
1998-99	9%	11%	19%	22%	26%	13%	54
2002-03	12%	20%	12%	17%	25%	14%	57
2004-05	24%	17%	7%	19%	18%	15%	54
	b. Number of External Attendees						
	0	1 to 500	501 to 1,000	1,001 to 2,000	2,001 to 4,000	>4000	
1986-87	28%	42%	5%	22%	3%	0%	36
1990-91	10%	36%	34%	12%	8%	0%	40
1994-95	11%	35%	18%	24%	12%	0%	72
1998-99	2%	23%	13%	27%	18%	17%	48
2002-03	4%	30%	10%	18%	24%	14%	50
2004-05	11%	29%	16%	15%	13%	16%	45

The number of attendees at courses that would not have been held is presented in the lower half (part b.) of Table 30 and the last section of Table 31 presents the 25th, 50th, and 75th percentiles. The number of participants that would be affected has increased appreciably over the years, then decreased over the most recent period.

Support for "media delivered" CME activities. The number of "media delivered" CME activities was presented in Tables 6–8. The 1994-95 survey was the first to ask about the extent of commercial support for CME activities involving communication media or storage. While these questions were asked for 2004-05, responses were inconsistently provided and the data were not sufficiently reliable to be included in this report. Individuals interested in the incomplete data should contact the first author of this report

Processes for applying for and receiving commercial support. Over the past three years several pharmaceutical companies have introduced online systems on which to apply centrally for funding for CME activities. Also, many companies have revised their letters of agreement and

TABLE 31. Distribution (Quartiles) of Medical Schools on Extent of Commercial Support for Courses Oriented to External Physicians

	Reporting Year	25th Percentile	50th Percentile	75th Percentile	Total Schools
Number of Courses	1986-87	9	14	25	51
Receiving Support:	1990-91	12	23	46	58
	1994-95	16	26	44	86
	1998-99	21	38	76	58
	2002-03	18	39	73	67
	2004-05	19	45	81	63
Percent of Courses	1986-87	23%	50%	70%	51
Receiving Support:	1990-91	25%	50%	70%	60
	1994-95	25%	59%	81%	84
	1998-99	49%	70%	90%	60
	2002-03	47%	70%	88%	67
	2004-05	41%	69%	81%	60
Total Amount of	1986-87	$20,000	$41,000	$75,000	42
Commercial Support Funds:	1990-91	$53,000	$115,000	$198,000	43
	1994-95	$88,000	$186,000	$383,000	82
	1998-99	$147,000	$309,000	$984,000	58
	2002-03	$190,000	$500,000	$1,230,000	67
	2004-05	$147,000	$575,000	$1,316,000	55
Percent of Course Revenue	1986-87	8%	20%	30%	40
from Commercial Support:	1990-91	12%	20%	33%	42
	1994-95	10%	21%	35%	79
	1998-99	25%	35%	54%	54
	2002-03	28%	45%	60%	66
	2004-05	29%	49%	69%	55
Number of Courses	1986-87	(not collected)			
Supported "Solely"	1990-91	(not collected)			
by One Company:	1994-95	0	1	6	84
	1998-99	2	6	14	61
	2002-03	0	4	10	65
	2004-05	0	2	10	60
Percent of School's	1986-87	(not collected)			
Courses Supported "Solely"	1990-91	(not collected)			
by One Company:	1994-95	0%	2%	10%	82
	1998-99	4%	9%	23%	56
	2002-03	1%	5%	18%	65
	2004-05	0%	3%	13%	59

(Table 31 continues on next page)

TABLE 31 (continued). Distribution (Quartiles) of Medical Schools on Extent of Commercial Support for Courses Oriented to External Physicians

	Reporting Year	25th Percentile	50th Percentile	75th Percentile	Total Schools
If No Support, Number of Courses Not Held:	1986-87	0	3	8	37
	1990-91	4	10	15	44
	1994-95	2	8	18	77
	1998-99	6	17	38	54
	2002-03	3	15	35	57
	2004-05	1	11	37	54
Number of Attendees at Courses Not Held if No Support	1986-87	0	200	900	36
	1990-91	250	772	1,000	40
	1994-95	121	650	1,500	72
	1998-99	552	1,500	2,800	48
	2002-03	191	1,500	3,150	50
	2004-05	173	725	2,100	45

TABLE 32. Distribution of Medical Schools on Commercial Companies' Online Funding Request Processes During the Last Year

	How Often					Mean	Total
	Seldom [1]	Some-times[2]	Often [3]	Usually [4]	Always [5]	[1-5]	Schools
a. Easy to request funds	29%	44%	9%	18%	0%	2.2	55
b. Instruction wording unclear / non-specific	11%	44%	26%	19%	0%	2.5	54
c. Difficulty submitting requested budget info.	13%	42%	25%	14%	6%	2.6	55
d. Difficulty submitting attachments & other info.	11%	58%	20%	9%	2%	2.3	54
e. Company timely in signing letters of agreement	11%	46%	14%	22%	7%	2.7	55
f. Company paying funds in a timely manner	7%	49%	16%	22%	6%	2.7	55

stipulations in them. New to this survey were several questions regarding processes associated with applying for and receiving commercial support.

Table 32 presents information on six aspects of online funding systems. The substantial majority (73%) of respondents seldom or only sometimes find the systems easy to use. Almost half (45%) find the instructions often or usually unclear. Almost half (45%) have difficulty submitting requested budget information often, usually, or always. One-third (31%) have difficulty submitting attachments and other information often, usually, or always. Half (57%) have difficulties with companies seldom or only sometimes being timely in signing letters of agreement. Similarly half (56%) have difficulties with companies seldom or only sometimes paying funds in a timely manner. Overall the pattern is that about half of respondents have problems with online applications and half do not. This may depend on the online system of a specific company.

How long does it take to complete an online funding request? The responses are presented in Table 33. The distribution is fairly wide, with the 25th, 50th, and 75th percentiles respectively 45 minutes, 60 minutes, and 105 minutes.

When CME unit processes grants for commercial support, does the CME unit charge for processing? Of the 58 units responding, 22% charged for assembling the information and submitting a request for commercial funding. The most common charge was a percentage of the funding received (10 schools with charges ranging from 5% to 15%) or a fixed fee (two schools with charges of $50 or $300).

TABLE 33. Distribution of Medical Schools on How Long It Takes to Complete a Typical Online Grant Request

16 – 30 min.	31 – 45 min.	45 min – 1 hr	61 min – 1 1/2 hr	91 min – 2 hr	121 min – 3 hrs	4 hours
12%	12%	33%	16%	17%	6%	4%

N = 51 schools.

TABLE 34. Distribution of Medical Schools on Types of Clauses in Letters of Agreement that the CME Office Can Sign

Type of Clause	No	Yes	Uncertain	Total Schools
a. Litigation state of venue is not your institution's state	54%	20%	26%	50
b. Indemnification holding the company harmless	51%	27%	22%	49
c. Requirement for liability insurance	45%	31%	24%	49
d. Other type of clause	39%	15%	46%	50

TABLE 35. Distribution of Medical Schools on Number of Commercially Funded "Satellite" Meetings Held Last Year in Conjunction with Meetings of National Specialty Societies

Number of "satellite" meetings		0	1-5	6-10	> 10	Total Schools
Percent of medical schools	2000	48%	42%	5%	5%	58
	2004	50%	44%	4%	2%	66
	2006	59%	30%	6%	5%	56

All institutions generally allow CME unit to sign letters of agreement for grants from commercial companies (N = 61). Are their some types of clauses that the institution will not allow the CME unit to sign? The responses are presented in Table 34. At about half of the schools the respondents could not sign agreements with the litigation state of venue not being the institution's state, the institution indemnifying the company, or requiring liability insurance. Under "other," some respondents noted that they could not sign clauses concerning arbitration, subcontractor insurance, assurance of copyright compliance, or vague references. Perhaps the most noteworthy finding is that at about a quarter of schools the respondents were not sure whether they could sign agreements with the clauses listed.

"Satellite" meetings. A trend beginning in the mid-1990's was for commercial companies to fund the production of "satellite" meetings, i.e. short CME activities held in conjunction with the meetings of national specialty societies. (Note the section on fees charged by CME units addressed fees charged for these activities produced in conjunction with communication companies, with results presented in Table 26. The initial questions in this section did not limit satellite meetings to those produced in conjunction with communication companies.)

Table 35 shows that 41% of medical schools sponsored a "satellite" meeting last year, with most of these schools sponsoring only a few of these meetings. The distribution shows a recent modest decrease in the number of schools sponsoring "satellite" meetings. This is mostly due to some who did a few not doing any, with the percent sponsoring more than five of these meetings remaining relatively stable.

Table 36 presents information on some issues about "satellite" meetings provided by the schools that held them. Half believe that these meetings did not reduce funding for regional CME activities, with 30% reporting they did not know. The change in responses over time is largely due to adding the response option of "don't know" in the 2006 survey.

Next Table 36 shows that communication companies were involved in the management of the substantial majority of satellite meetings, typically handling most or all of the management. Half had no problem with the management of satellite meetings and most of the rest had only a little problem with management. Comparing the current responses on these two items with those in 2000 and 2004, overall patterns are similar.

TABLE 36. Distribution of Medical Schools on Issues about "Satellite" Meetings

Issue	Year	To What Extent?					Mean	Total
		Not at All [1]	A Little [2]	Some-what [3]	A Lot [4]	Don't Know [8]	[1-4]	Schools
a. The funding of satellite meetings reduced funding for regional CME activities.	2000	76%	9%	6%	9%	*	1.5	33
	2004	92%	4%	0%	4%	*	1.2	25
	2006	52%	15%	3%	0%	30%	1.3	27
b. Communications companies were responsible for the management of satellite meetings	2000	17%	25%	16%	42%	*	2.8	36
	2004	18%	0%	10%	72%	*	3.4	39
	2006	19%	11%	7%	63%	*	3.1	27
c. School had problems with the management of satellite meetings	2000	25%	56%	11%	8%	*	2.0	36
	2004	50%	40%	5%	5%	*	1.7	39
	2006	48%	37%	11%	4%	*	1.7	27

* Not available as a response option.

Company knowledge, adherence, and ease. The 2004 survey included items focusing on individual pharmaceutical companies, the segment of commercial company most likely to provide commercial support for CME activities. The current survey repeated the questions. Listed were the 20 pharmaceutical companies ranked highest on spending on research and development and on revenue from health care. Respondents used 5 point scales (ranging from "1 = low" to "5 = high") to score each company on: (a) knowledge of CME requirements and processes, (b) adherence to national guidelines, and (c) ease to work with.

The means for each score for each company are presented in Table 37. The number of schools responding differs by company, with a higher number of responses likely to reflect more interactions between companies and medical schools. To simplify comparisons, the companies are listed in descending order on their mean score on the first item, which concerns knowledge. Companies that had the same scores on the first item are listed in descending order on the second item.

All scores for the three items are above the midpoint ("3") on the scale. The means tend to have a modest range across one full point on the scale, i.e. from a low of 3.4 to a high of 4.4. A company's score on "knowledge" generally parallels its score on "adherence." The means for "ease" tend to less closely parallel scores on the other two measures and overall tend to have slightly lower values. This pattern of scores was similar on the items in 2004.

One interesting specific change from 2004 to 2006 concerns Merck. In 2004 Merck had has the greatest discrepancy in scores, with the highest scores on "knowledge" and "adherence," and the lowest score on "ease." Presumably the score on "ease" reflected respondents' views concerning a centralized system to apply for funds over the Internet, which Merck had recently pioneered. In 2006 respondents are much more familiar with online application systems, Merck has had the longest time to enhance the operation if its system, and respondents are likely to have had the longest experience with it. Merck now has the highest scores on all three items.

Research in CME Units

CME units vary in the extent to which research is part of the unit's activity. This section of the survey describes the extent to which research concerning CME is performed by CME units and by others at medical schools.

The survey included five interrelated items concerning CME units and research on CME – see Table 38. Of the schools, 26% have research projects based in the CME unit, 33% have CME unit personnel doing research based in other units on CME, 37% have CME unit personnel doing research based in other units on undergraduate/graduate medical education, 40% have non-CME unit personnel doing CME research, and 31% have CME unit personnel doing research in other units on other topics (e.g., physicians performing clinical research, quality of care improvements, clinical simulation). Over time the involvement in research has been fairly stable in all of these areas.

The accreditation of CME programs at medical schools in Canada requires that the programs have a research component. The information presented in Table 38 was further analyzed to see the extent to which the results were due to research at Canadian medical schools. All five (100%) of the Canadian schools answered "yes" (research being performed) to all of the questions in Table 38. For U.S. schools the percent of "yes" responses ranged from a low of 20% (research projects are based in the CME) to a high of 35% (non-CME unit personnel are doing CME research).

TABLE 37. Medical School's Ratings of 15 Pharmaceutical Companies on Three Characteristics Related to CME

Company	Knowledge of CME Requirements and Processes			Adherence to National Guidelines			Easy to Work With		
	Mean	SD	N Schools	Mean	SD	N Schools	Mean	SD	N Schools
Merck	4.4	0.8	46	4.4	0.8	45	4.2	1.2	48
Eli Lilly	4.2	0.8	40	4.1	0.8	39	3.6	1.1	42
Sanofi–Aventis	4.1	0.8	44	4.2	0.7	42	3.6	1.1	45
GlaxoSmithKline	4.1	0.9	45	4.0	0.9	44	3.6	1.0	47
AstraZeneca	4.1	0.8	46	4.0	0.8	44	3.3	1.2	48
Wyeth	4.0	0.8	43	3.9	0.8	41	3.6	1.0	44
Pfizer	4.0	1.0	45	3.9	0.9	43	3.4	1.1	47
Novartis	4.0	1.0	41	3.9	0.9	40	3.3	1.1	43
Roche	3.9	0.9	35	4.1	0.7	33	3.6	0.9	36
Boehringer Ingleheim	3.9	0.8	40	4.0	0.8	38	3.7	0.9	40
Amgen	3.9	0.8	33	4.0	0.8	32	3.6	1.0	34
Johnson & Johnson	3.9	0.7	31	3.9	0.6	29	3.6	0.8	33
Takeda	3.8	0.8	25	4.0	0.8	23	4.0	1.0	26
Astellas	3.8	1.1	16	3.9	1.2	14	3.9	1.2	15
Genentech	3.8	0.8	35	3.9	0.7	35	3.5	1.0	37
Bristol Myers Squibb	3.8	1.0	38	3.9	0.9	36	3.1	1.2	40
Bayer	3.7	1.0	18	3.5	1.0	19	3.2	1.1	19
Schering-Plough	3.6	0.8	30	3.7	0.8	29	3.5	0.9	31
Abbott	3.4	1.0	36	3.7	0.9	36	3.3	1.0	36
Schering AG	3.4	0.7	15	3.5	0.8	14	3.2	0.9	15

Note: Ratings are on 5 point scales from 1 = Low to 5 = High. SD = Standard Deviation.

Another item asked, "In roles and assignments in your CME unit, what is the approximate full time equivalent of senior personnel spent on research?" The results are presented in Table 39. Most (80%) CME units do not have senior personnel spending time on research. Of the remainder, it is most common for this to be a minor portion (0.1 to 0.3 FTE) of someone's role. Compared to previous years, the results are fairly stable.

The final question concerning research asked about the approximate annual research revenue of the CME unit by revenue source. The distribution of responses is presented in Table 40. Nineteen percent of CME units received research revenue. The principal sources of this revenue are both external grants and funding from "other" sources (e.g., pharmaceutical companies), both of which also provide the largest amounts of funding. In this survey no funds from the university were received for research. The CME units that receive funding from the remaining sources listed in Table 40 are usually also receiving external grant funds. The percentage of CME units with research funding and the funding amounts have been generally stable over time.

Scope of Educational Responsibilities

Respondents were asked to describe what educational responsibilities, in addition to CME are housed within the unit. They were also asked to identify their administrative reporting structure within their institution. These questions were included in the survey for the first time in 2006.

At two-thirds (66%) of responding medical schools the CME unit operates under the title of "Office of CME" or something very similar (Table 41). The remaining units have a variety of titles (e.g., Office of Continuing Education, Office of Continuing Professional Development), which suggest that they may have wider responsibilities than CME.

TABLE 38. Distribution of Medical Schools on Questions Regarding Research and CME

	Year	No	Yes	Total Schools
Research projects based within CME unit?	1990	81%	19%	72
	1994	82%	18%	74
	1998	78%	22%	81
	2000	69%	31%	61
	2004	76%	24%	70
	2006	74%	26%	61
CME unit personnel doing research based in other units on CME?	1990	67%	33%	69
	1994	76%	24%	72
	1998	*	*	*
	2000	59%	41%	56
	2004	66%	34%	68
	2006	67%	33%	60
CME unit personnel doing research based in other units on undergraduate/graduate medical education?	1990	67%	33%	63
	1994	70%	30%	71
	1998	*	*	*
	2000	56%	44%	50
	2004	65%	35%	60
	2006	64%	37%	52
Non-CME unit personnel doing CME research?	1990	69%	31%	68
	1994	63%	37%	70
	1998	*	*	*
	2000	59%	41% **	59
	2004	59%	41% **	69
	2006	65%	40% **	57
CME unit personnel doing research in other units on other topics?	2000	71%	29%	52
	2004	72%	28%	67
	2006	69%	31%	58

*Data not collected appropriately.

** 2000: with 24% of 59 schools having this research done in collaboration with CME unit.
2004: with 29% of 69 schools having this research done in collaboration with CME unit.
2006: with 30% of 57 schools having this research done in collaboration with CME unit.

TABLE 39. Distribution of Medical Schools on Full-Time Equivalents of Senior Research Personnel in CME Unit

	0	0.1-0.3	0.4-0.6	0.7-1.0	1.1-5.0	Total Schools
1990	81%	11%	7%	1%	0%	72
1994	82%	12%	2%	1%	3%	74
1998	79%	13%	6%	1%	1%	80
2000	71%	16%	5%	3%	5%	60
2004	78%	10%	0%	5%	7%	68
2006	80%	10%	3%	2%	5%	63

Note: For schools with research projects based within the CME unit.

TABLE 40. Distribution of Medical Schools on Amount and Source of Research Revenue to CME Unit

Revenue Source	Year	Revenue Amount					Total Schools
		$0	$1 to $5,000	$5,001 to $10,000	$10,001 to $50,000	$>50,001	
External grants	1990	89%	4%	0%	6%	1%	72
	1994	92%	0%	1%	4%	3%	73
	1998	88%	0%	0%	6%	6%	81
	2000	76%	5%	0%	10%	9%	58
	2004	85%	0%	2%	6%	7%	69
	2006	86%	5%	5%	2%	2%	55
Other	1990	99%	0%	1%	0%	0%	72
	1994	97%	0%	0%	3%	0%	73
	1998	100%	0%	0%	0%	0%	81
	2000	95%	3%	2%	0%	0%	57
	2004	96%	2%	2%	0%	0%	61
	2006	96%	0%	0%	2%	2%	55
Conference fees	1990	89%	7%	3%	1%	0%	72
	1994	99%	1%	0%	0%	0%	73
	1998	98%	0%	1%	0%	1%	81
	2000	93%	3%	0%	2%	2%	57
	2004	95%	0%	2%	0%	3%	69
	2006	94%	4%	4%	0%	0%	54
University	1990	97%	3%	0%	0%	0%	72
	1994	95%	3%	1%	1%	0%	73
	1998	96%	1%	0%	2%	1%	81
	2000	91%	2%	0%	7%	0%	58
	2004	98%	0%	0%	0%	2%	69
	2006	100%	0%	0%	0%	0%	54
Total of sources	1990	83%	6%	3%	7%	1%	72
	1994	86%	3%	0%	7%	4%	73
	1998	88%	0%	0%	6%	6%	81
	2000	75%	3%	2%	8%	12%	58
	2004	85%	0%	2%	4%	9%	70
	2006	81%	0%	0%	6%	13%	54

Note: This table treats missing data (i.e. blank response) as zero revenue from the source.

Table 42 presents information on the "upward" reporting structure of the unit responsible for CME. The great majority (83%) of units report only through a medical school dean and not through the head of a hospital.

Some of units responsible for CME are also responsible for other education programs (Table 43). The most common educational programs added to CME responsibilities included faculty development (28%), allied health CE (19%) and pharmacy CE (19%). Units responsible for CME and for other educational programs may be better positioned to develop a more interdisciplinary approach to educating health care professionals.

Relationship with Hospital QI and Staff Development

Respondents were asked what general relationships their medical schools have with teaching hospitals. About half (54%) of the responding institutions have a full affiliation with a hospital, or hospitals, not owned or operated by the university (Table 44). This is a reflection of a trend in independent hospital ownership/operation that has been seen over the past two decades. A quarter (29%) of the medical schools have a full affiliation in which the university owns both the school and the hospital. The remaining institutions have no or partial affiliation with a teaching hospital.

Table 41. Distribution of Medical Schools on Title of Administrative Unit Responsible for CME

Title of Unit	% Schools
Office of Continuing Medical Education *(includes CME Division, Department and Program)*	66%
Office of Continuing Education *(includes Center for Continuing Education, Center for Continuing Education in the Health Sciences or Health Services)*	17%
Office of Continuing Professional Development *(includes Office of CPD and evaluation studies, Office of Continuing Professional Education , and Office of CPD in Medicine and Public Health)*	7%
Office of Continuing Medical Education and Professional Development	2%
Professional Development and Conferencing Services	2%
College of Medicine	2%
School of CME, within the College of Medicine	2%
Vice Chancellor for Academic Affairs	2%

N = 63 medical schools

Table 42. Distribution of Medical Schools on the Person through Whom the CME Program Reports within the Larger Organization

Title of Person through Whom the CME Program Reports	% Schools
The Dean of a medical school and NOT the head of a hospital	83%
Both the Dean of the medical school AND the head of a hospital	10%
The head of an academic health center or the head of a hospital, but NOT the Dean	7%

N = 60 medical schools

Table 43. Distribution of Medical Schools on Other CE Programs within the Unit Responsible for CME

Other Educational Programs	Yes	Total Schools
Faculty Development	28%	60
Allied Health CE	19%	58
Pharmacy CE	19%	57
Nursing CE	13%	60
Compliance Education (HIPPA etc)	12%	60
Dental CE	9%	59
Patient Education Programs	8%	60
Other*	7%	60

* Other responses include: “CE for public health workers and Masters Degree programs for non-residential students” and “Teleconferences and telemedicine.”

Table 44. Distribution of Medical Schools on Extent to which the Medical School is Integrated with Teaching Hospital(s)

Extent of Medical School Integration with Teaching Hospital(s)	% Schools
No integration with a teaching hospital	9%
A partial affiliation involving only some specialties	5%
A full affiliation although the hospital(s) is (are) owned and operated separately	54%
A full integration with the University operating both the school and hospital(s)	29%
Other integration arrangement with teaching hospital(s)*	3%

N = 63 medical schools

* Other includes: "Medical director of CME serves on Performing Improvement Council of the Health System," and "Associate Dean for CME serves on Drug Events subcommittee and the Medical Education Program is owned [by the hospital system] but operated separately.

Table 45. Distribution of Medical Schools on Extent to Which the CME Unit is Linked to Relevant Hospital Programs

Hospital Program	None	A Little	Somewhat	A Lot	Total Schools
Quality Improvement Program	39%	30%	26%	5%	57
Staff Development Program	47%	22%	29%	2%	59
Other non-CME educational activities	44%	29%	18%	9%	56

Table 46. Distribution of Medical Schools on Number of CME Activities "Repurposed" from One Format to Another

Number of CME Activities Repurposed Last Year	% Schools
None	24%
One to five activities	46%
Six to twenty activities	22%
More than twenty activities	8%

N = 59 medical schools

To what extent are CME units linked to a hospital's programs for quality improvement and hospital staff development? Despite the substantial majority (83%) of medical schools having a full affiliation with teaching hospitals, only 31% of CME units are "somewhat" or "a lot" linked with various educational programs at a hospital (Table 45). About 70% of medical school CME units have little or no connection with the QI and staff development programs at hospitals

Considering the new ACCME criteria for accreditation, a close affiliation with teaching hospitals will help medical schools design and evaluate their CME programs. However, currently the medical school CME units do not have a significant involvement in the QI and educational programs at other hospitals.

CME Content "Repurposing"

A new question in the 2006 survey asked the number of times in the last year that the medical school used content from a CME activity in one format to develop the content of a CME activity in another format (e.g., record or transcribe content of a live activity to create an enduring material). Over 75% of the respondents indicated that they repurposed at least one activity in the past year (Table 46). This includes 30% that repurposed a substantial number (six or more) of activities.

As technology makes it easier to deliver education via several modes, medical schools are taking advantage of this opportunity to extend the reach of their educational content by repurposing it. Some "repurposing" results from commercially funded "satellite symposia" that are transformed into print and Internet-based formats, often in conjunction with communication companies (see Table 26).

Table 47. Distribution of Medical Schools on Number of Performance Improvements Activities Certified for CME

Number of Performance Improvement Activities	% Schools
None	76%
One to five activities	21%
Six to twenty activities	3%
More than twenty activities	0%

N = 58 medical schools

Table 48. Distribution of Medical Schools on Plans Next Year for Two New CME Formats

New CME Format	Extent of Plans			Total Schools
	No Plans	Discussing, No Specific Plans	Developing Activities	
Performance improvement activities	21%	49%	30%	57
Internet point of care learning	46%	35%	19%	57

New Formats Approved for CME Credit (U.S. schools)

Performance improvement. In 2004 the American Medical Association (AMA) and American Academy of Family Physicians (AAFP) approved "performance improvement" as a new format for CME credit. "Performance improvement" activities award up to 20 credits for developing learning opportunities that improve patient care by assessing current practice patterns, implementing improvements, and assessing the impact of the practice changes. Only 24% of the responding institutions have certified performance improvement activities in the last year (Table 47). Of those, almost all institutions (12 of 14) certified five or fewer activities.

When asked about plans for performance improvement activities next year (first line of Table 48), approximately half of the schools are currently discussing the development of performance improvement CME. The remaining schools are split between those already developing activities (30%) and those with no plans (21%).

Internet point of care learning. In 2004 the AMA and the AAFP also approved "Internet point of care learning" as a new format for CME credit. Internet point of care allows CME providers to certify credit for physicians who access an online body of knowledge, which could be accessed from exam rooms or the bedside. Providers must establish the integrity of the knowledge database, document whether the activity met the participant's learning objectives, and verify physician participation in order to award credit.

The vast majority of responding institutions (95%) have not awarded credit for point of care learning at the time of this survey. When asked about plans for point of care learning next year (last line of Table 48), almost half (46%) have no current plans to do so in the next year while the other half are discussing possibilities or developing activities.

Neither new type of format for credit has been widely adopted. However, institutions are moving more quickly to develop performance improvement activities than point of care learning activities.

ACCME's Updated Standards for Commercial Support (U.S. schools)

The Accreditation Council for Continuing Medical Education (ACCME) released its updated Standards of Commercial Support in 2004. Accredited providers in the United States were required to implement the new Standards by May 2005. Respondents from U.S. medical schools were asked to comment on their understanding, implementation, and consequences of the new standards in an effort to better understand their impact on CME programs.

Understanding and implementing new Standards. Respondents were asked to rate their understanding and the difficulty of implementing each of the six Standards. Ratings were requested for an entire Standard, but not for specific sub-areas of a Standard. Separate ratings of implementation difficulty were asked for single CME events and for regularly scheduled conferences (RSCs).

Table 49. Distribution of Medical Schools on Understanding & Implementing ACCME's Updated Standards for Commercial Support

Standard	Understand				Implement in Single Events				Implement in RSCs*			
	Not Well	Some-what	Well	Total Schools	Diffi-cult	Some Effort	Easy	Total Schools	Diffi-cult	Some Effort	Easy	Total Schools
Independence	2%	2%	96%	57	4%	34%	62%	55	9%	47%	44%	55
Resolution of conflicts of interest	0%	19%	81%	54	15%	80%	5%	54	35%	59%	5%	54
Appropriate use of commercial support	0%	2%	98%	55	2%	31%	67%	54	11%	46%	43%	54
Appropriate management of commercial promotion	0%	6%	95%	55	2%	38%	60%	52	10%	45%	45%	51
Content and format without commercial bias	2%	4%	94%	56	4%	49%	47%	55	7%	58%	35%	54
Disclosures relevant to potential commercial bias	2%	4%	94%	56	5%	32%	63%	56	18%	40%	42%	55

* Regularly scheduled conferences (e.g., grand round series)

Table 50. Distribution of Medical Schools on Changes Resulting from Implementing the Updated Standards of Commercial Support

Type of Change	Change in Single Events					Change in RSCs*				
	None	A Little	Some-what	A Lot	Total Schools	None	A Little	Some-what	A Lot	Total Schools
Reduction in commercial bias	52%	29%	17%	2%	54	52%	27%	17%	4%	52
Increase in cost for an activity	25%	30%	36%	9%	53	33%	31%	27%	9%	52
Decrease in number of activities	68%	22%	6%	4%	54	69%	15%	12%	4%	52

* Regularly scheduled conferences (e.g., grand round series)

Respondents rated their understanding of Standards on a three-point scale: "Not Well," "Somewhat," and "Well." In all but one of the six Standards, respondents overwhelmingly (over 90%) indicated that they understood the Standard well (Table 49). The only Standard for which some respondents had a lower level of understanding was "resolving conflicts of interest", where 81% indicated that they understood it well and the remaining 19% indicated that they understood it somewhat.

Responses were more varied regarding implementing the Standards for single events and RSCs (Table 49). For single events, about 60% of respondents reported that implementing four of the Standards was easy. The major exception is "Resolution of conflict of interest," which only 5% felt was easy. Just under half (47%) felt that "Content and format without commercial bias" was easy.

For regularly scheduled conferences, no Standard was identified by a majority of the respondents as easy to implement. About 45% of the respondents found that four of the Standards were easy to implement. The exceptions are "Resolution of conflicts of interest" (5% found easy) and "Content and format without bias" (35% found easy).

In general, while most respondents feel they have a good understanding of the Standards, they have some difficulties with implementation. The resolution of personal conflicts of interest (Standard 2) stands out as more difficult to implement than the other five Standards. Implementing all of the Standards is more difficult to accomplish for regularly scheduled conferences than for single events. Presumably, the typical diffusion of responsibility for managing RSCs and the number of sessions over time makes overseeing and documenting their compliance with the Standards more challenging for the CME office.

Changes resulting from the new Standards. Respondents were asked to indicate the effect of implementing the new Standards for Commercial Support on: commercial bias, cost to produce an activity, and the number of activities with credit. Results are presented in Table 50. The results are

Table 51. Distribution of Medical Schools on Perception of Conflict of Interest in Relationships between the ACCME and the AMA

Relationships	No	Yes	Uncertain	Total Schools
The ACCME collects information on behalf of the AMA. The AMA is responsible for AMA PRA Category 1 Credit™ and the AMA is also a nationally accredited CME provider. Is there any apparent conflict of interest in this system?	23%	49%	28%	57
Should ACCME provide PRA compliance information to the AMA?	18%	35%	47%	55
Should ACCME Board members nominated by the AMA and elected by the Board vote on the accreditation status of medical schools?	20%	31%	49%	57

similar for both single events and for regularly scheduled conferences. The new Standards are generally perceived to produce "little" or "no" decrease in bias (about 80%). About 60% of respondents indicated that costs for a CME activity increased "a little" to "somewhat" as a result of the new Standards. Two-thirds (about 68%) of the respondents reported that the new Standards had no impact on the number of activities.

The greatest impact of the new Standards appears to be on the cost to produce an activity. This applies to both single activities and RSCs. Interestingly, the least impact is on reduction in commercial bias in CME activities. The survey did not ask for further explanation of the limited effect on bias. One interpretation is that significant bias exists and the Standards had little impact on it. Another interpretation is that perceptions and measures of bias are not sensitive to levels of bias. Hopefully, the more likely explanation is that the initial level of perceived bias in CME activities of medical schools was low, so the Standards had little bias to affect. Given the increased cost associated with implementing the Standards and either interpretation of their limited effect on bias, consideration should be given to further evaluation of the cost-effectiveness of implementing the Standards at medical schools.

Policy Issues Regarding Accreditation and Credit (U.S. schools)

Two major policy issues concerning CME accreditation and CME Credit were explored for the first time in the 2006 survey.

Possible ACCME and AMA conflicts of interest. The first issue focuses on possible conflicts of interest in the relationship between the ACCME and the American Medical Association (AMA). While the AMA owns Physician Recognition Award (PRA) credit, the AMA is also an accredited CME provider and subject to the Essentials and Standards of ACCME. Furthermore, the AMA is a parent organization of the ACCME and two members of the ACCME Board are to be nominated by the AMA. These Board members vote on the accreditation status of CME providers.

Three questions were asked regarding potential conflict of interests in the relationship between the ACCME and the AMA. The questions and responses are presented in Table 51. During accreditation reviews the ACCME collects information on behalf of the AMA for the AMA to check the provider's compliance with AMA PRA requirements. The first question asked whether any apparent conflict of interest exists in this overall system. Almost half of the respondents (49%) feel there is an apparent conflict of interest. On the specific issue of whether the ACCME should provide the AMA with compliance information, about half (47%) of respondents were uncertain, one-third (35%) believed that the information should be provided, and 18% believed it should not be provided. The last question asked whether ACCME Board members nominated by the AMA should vote on the accreditation status of medical schools. The response was similar to the preceding question: almost half (49%) of the respondents were uncertain, one-third (31%) believed this is appropriate, and 20% believed it is not appropriate.

CME credit offered by medical schools and by other organizations. All entities accredited by ACCME offer the same AMA PRA Category 1 Credit™. We asked respondents whether medical schools should offer credit that is the same as the credit offered by other types of organizations that are accredited by ACCME. Table 52 lists the other types of organizations and the responses for each..

The results generally cluster into three groups. The majority of respondents (70% to 78%) felt that CME credit offered by medical schools should be the same as credit offered by medical professional societies (i.e. medical specialty societies, the AMA, and state medical societies). About half (46% to 53%) felt credit should be the same as that offered by intrastate CME providers accredited by state medical societies, voluntary health organizations, non-teaching hospitals, and government agencies. Only a minority (25% to 35%) felt credit should be the same as that offered by companies producing medical journals and textbooks, companies specializing in medical meetings, and insurance companies.

Table 52. Distribution of Medical Schools on Whether Medical Schools Should Offer the Same Credit as Other Organizations

Other Types of Organizations	Same	Different	Uncertain	Total Schools
Medical specialty societies	78%	11%	11%	57
The American Medical Association	77%	11%	12%	57
State medical societies	70%	19%	11%	57
Intrastate providers accredited by state medical societies	53%	33%	14%	57
Voluntary health organizations (e.g., Amer Heart Assn)	52%	32%	16%	57
Non-teaching hospitals	51%	33%	16%	57
Government agencies	46%	33%	21%	57
Companies producing medical journals and textbooks	35%	47%	18%	57
Companies specializing in meeting management	26%	60%	14%	57
Insurance companies	25%	59%	16%	56

The responses to this question do not support a proposal for medical schools having a type of credit that is different from all other types of providers. Rather, it seems to put providers into categories that are similar to, and different from, medical schools in terms of mission.

Concerns for Medical School CME Programs

Medical schools are facing many challenges to maintain and improve their overall CME program. The questionnaire listed 11 issues for CME programs and asked each school to rate the extent to which the issue is a concern. The issues are presented in Table 53 along with the distribution of responses and the mean across responses.

The results can be grouped into four levels of concern.

" A lot" of concern (mean = 4.1): the increased effort required to obtain (apply for and process) commercial support

"Somewhat" to "a lot" of concern (means = 3.5 to 3.6): emphasizing physician performance change and obtaining commercial support (i.e. support availability)

"Somewhat" of concern (means = 2.7 to 3.1): increasing the quality of CME activities, changing the professional expertise of CME personnel, increasing use of technology to deliver CME activities, maintaining attendance levels at CME activities, complying with CME accreditor's rules for commercial support, registration fees rising to levels that lower attendance, and increasing the amount of research done within the CME unit

"A little" to 'somewhat" of concern (mean = 2.5): recruiting faculty presenters for CME activities.

The concern that was most frequently added to the list (4 schools) is demonstrating the value of CME to the medical school.

These concerns and their level of importance provide guidance for SACME to develop programs to address the needs of its members, particularly those at medical schools. To the extent that the concerns are shared more broadly across all CME providers, this list suggests priorities for all organizations working to support CME providers.

CME Best Practices

The final item on the 2006 survey asked medical schools to describe: "one or more 'best Practices' in your CME programming. Best practices include initiatives, programs, and projects that reflect best educational principles, address quality improvement or patient safety issues, or other innovations in CME. They include unique or effective organizational structures."

Nineteen schools listed 34 "best practices" (one or more per school). The topics were grouped within the general categories of the overall CME program and of individual CME activities. Further subgrouping into related topics produced the list of "best practices" presented in Table 54. The topics relevant to the overall CME program focused on administration and program improvement: quality improvement, unit structure and process, faculty development, staff development, and procedures to address conflict of interest. The topics relevant to individual CME activities focused on method of delivery and on outcomes: Internet use, outreach education, clinical performance assessment and improvement, and outcome studies. The area of greatest reported activity is innovations in the use of the Internet to deliver CME content and testing (10 of 34 "best practices").

The "best practices" listed in Table 54 provide an overview of current innovations in CME. Awareness of these innovations may stimulate other innovations by medical schools and by other CME providers.

Table 53. Distribution of Medical Schools on Concerns for their CME Program

Issues of Possible Concern	How Much of a Concern?					Mean	Total
	Not [1]	A Little [2]	Some-what [3]	A lot [4]	A Great Deal [5]	[1-5]	Schools
a. Effort required to obtain commercial support	0%	5%	19%	38%	38%	4.1	61
b. Emphasizing physician performance change	2%	13%	26%	42%	17%	3.6	62
c. Obtaining commercial support (support availability)	0%	11%	39%	34%	16%	3.5	62
d. Increasing the quality of CME activities	10%	19%	34%	26%	11%	3.1	62
f. Changing the professional expertise of CME personnel	5%	21%	39%	28%	7%	3.1	61
e. Increasing the use of technology to deliver CME activities	3%	24%	40%	26%	7%	3.1	62
g. Maintaining attendance levels at CME activities	8%	18%	47%	21%	6%	3.0	62
h. Complying with CME accreditor's rules for commercial support	14%	24%	31%	21%	10%	2.9	62
i. Registration fees rising to levels that lower attendance	16%	18%	40%	19%	7%	2.8	62
j. Increasing the amount of research done within the CME unit	16%	31%	28%	16%	9%	2.7	61
k. Recruiting faculty presenters for CME activities	26%	29%	23%	19%	3%	2.5	62

Note: Under "other", schools wrote in 11 additional important concerns, including demonstrating value of CME to the medical school (4 responses) and linking CME to performance and outcomes (2 responses, similar to item b above),

Table 54. Summary of Areas of "Best Practices" in CME Programming Reported by Medical Schools

Overall CME Program: Administration and Improvement

Quality Improvement of Overall CME program

Strategic planning process built into all CME programming
Annual office retreat to evaluate CME program and plan for next year
Six Cycles of CME Program Improvement: documenting CME program improvement strategies
PI/QI initiative. CME unit will hire a QI consultant to assist practices in improving practices

CME Unit Structure and Process

Project management/grant management expertise located within CME unit
Matrix organizational structure
Credit request intake. Formal, comprehensive and systematic accreditation review process
Institutional database for CME to assist with registration, budgets, etc

Faculty Development

Course director/faculty training in CME accreditation. Consists of a self-learning module, to assure competencies in accreditation **
Junior Faculty development program addressing: COI, presentation skills, professionalism *
Presentations on COI to most departmental grand rounds

(Table 54 continues on next page. Table footnote are at bottom of that page.)

Table 54 (continued). Summary of Areas of "Best Practices" in CME Programming Reported by Medical Schools

Overall CME Program: Administration and Improvement (continued)

Staff Development

Professional development opportunities for all staff provided (2 responses)

Conflict of Interest – Procedures

On-site audit. Local accreditation review committee considers risk factors related to the standards for commercial support and bases site visits on this analysis.

Conflict of interest policy to quantify the risk of commercial support inherent in course proposals **

Individual CME Activities: Delivery and Outcomes

Internet Use in Delivering CME Content and Testing

Innovative use of technology, providing peer-review, in-time CME, *MedPage Today;* an online educational resource providing daily summaries of clinical advances ***

STATdx-Radiology Point of Care Internet Searching and Learning. Clinical decision support system

Telestroke. Web-based intervention to allow clinicians to prescribe thrombolytic agents safely *

State-wide practice-based CME network: updated CME sessions, online publication access, literature searchers, patient education materials, practice resource ***

Skills enhancement for health surveillance. Online training program for public health officials

Collaborations to produce web-based CME intervention. Several projects, e.g. post MI treatment, eye disease in children, depression.

Online learning resource initially aimed at rural physicians as a part of a Canadian-wide strategy to increase retention of rural and isolated physicians ***

Comprehensive Perioperative Educational Program: 150 hours of supervised exercises in ultrasonograpy. Involves live and on-line resources and activity

Development of web-based activities

Online testing system. Useful for developing individualized learning plan and traditional CME programs, self assessments. ***

Outreach Education

Medical students facilitate CME in preceptor's offices, search for issues, practicing EBM; [preceptor earns CME credit **

Diabetes Care Quality Improvement: a series of courses held at distant location throughout state

Wednesday at noon: ask the consultations done for rural and isolated physicians by teleconference

Fostering collaborative relationships through shared CPD. Outreach education and QI initiatives to encourage team-building

Clinical Performance Assessment and Improvement

Diabetes Quality of Care. Chart review and reporting resulting in comparative reports **

Osteoporosis Performance Improvement Project: educational sessions to be based on chart reviews and summaries in the diagnosis and management of osteoporosis.

CME interventions in colorectal cancer screening. RCT of an intervention using educational and administrative techniques to increase screening

Integrating education and the development and implementation of evidence-based practice guidelines, the latter using opinion leaders, audit/feedback, reminders, administrative changes *

CME Outcomes – Other

Conscious development of outcome studies to assess impact of CME activities

Note: Of the 63 schools that returned questionnaires, 19 schools listed 34 "best practices" (one or more per school).

* Published in a professional journal or newsletter

** Presented at a professional meeting

*** Available by Internet

Suggestions for the Next Survey

The Survey Subcommittee extends our appreciation to the CME directors and personnel who completed and returned this year's survey. Their willingness to provide information makes this report possible.

We invite members to submit suggestions to be included in the next survey. The work that goes into developing the survey, responding to it, and assembling the results is worthwhile only if the information is useful to the membership. We welcome your suggestions.

APPENDIX

Live Courses: Definitions Used for Audiences, Programs, and Locations

Program information. This section requests an annual summary of the programs you have offered for the past year. The terminology is explained below to clarify the question (and your responses). (A page of definitions may appear to be overkill. However, with the diversity among CME units the possibilities for confusion are enormous - - a lot more than you are thinking right now. You have to be on the receiving end of the completed surveys to begin to appreciate the variety -- and creativity -- our unguided energies can produce.)

Target audience. Physician oriented programs -- programs planned with physicians as an important portion of the audience, i.e., at least 25% of the expected audience and typically the majority of the audience.

External participants -- individuals attending your CME programs who are not closely associated with your institution; they typically do not have an appointment with the medical college/school, usually do not attend "internal" meetings such as department meetings, and usually are expected to pay registration fees for your CME programs. (A few schools have decided for local reasons to extend "courtesy" appointments to a large number of "community" physicians and even offer them CME at no charge. However, if they are not functionally part of the medical school/college, they should be classified as "external.")

Internal participants -- individuals attending your CME programs who are employed by your institution; they typically have an appointment with the medical college/school, they are invited to and usually attend "internal" meetings such as department meetings, and usually do not pay registration fees for your CME programs.

Types of educational programs. Live, in-person courses, conferences, and seminars -- the usual multiple hour and often multiple day programming for CME. Individual promotional efforts are usually associated with each of these meetings.

Presentations at county medical societies and local hospitals -- usually of limited length, routinely scheduled, and involving little, if any promotional activity, and a limited and defined set of individuals that are invited to attend.

Live conferences broadcast by telephone, television, or internet -- media transmission of events occurring elsewhere or previously.

Individual tutorials and traineeships -- participant usually comes to the designated training location.

Self-study courses (written, audio, video or computer based disk or via Internet) -- participant does independently, usually at home.

Internal meetings -- grand rounds, medical conferences, and other meetings primarily for members of the faculty and staff of the medical college/school.

Locations. Primary site -- the usual location for your programs. For most medical colleges/schools, this location is at or near the medical college/school.

Pleasure locations -- resorts and cities that are often visited by tourists and vacationers.

THANK YOU!

The following medical schools completed and returned the 2006 SACME questionnaire. The medical schools followed by an asterisk (*) returned it by August 28, 2006, a noteworthy accomplishment. The Survey Subcommittee extends a special thanks to the institutions below on behalf of the membership.

ALABAMA
University of Alabama School of Medicine

CALIFORNIA
University of California – Los Angeles*
University of California- San Francisco
University of California –San Diego*
University of Southern California – Keck School of Medicine

DISTRICT OF COLUMBIA
Howard University College of Medicine*

FLORIDA
University of Miami School of Medicine
University of South Florida College of Medicine*

GEORGIA
Medical College of Georgia

ILLINOIS
Northwestern University Feinberg School of Medicine*
Rush University Medical College*
Southern Illinois University School of Medicine*
University of Illinois at Chicago*

INDIANA
Indiana University School of Medicine

IOWA
Carver College of Medicine, University of Iowa *

KENTUCKY
University of Louisville

LOUISIANA
Tulane University Health Sciences Center*

MARYLAND
Johns Hopkins University School of Medicine
Uniformed Services University of the Health Sciences*

MASSACHUSETTS
Boston University School of Medicine*
Tufts University School of Medicine*
University of Massachusetts Medical School*

MICHIGAN
University of Michigan Medical School*
Wayne State University School of Medicine*

MINNESOTA
Mayo Clinic College of Medicine*
University of Minnesota

MISSOURI
Washington University School of Medicine

NEBRASKA
Creighton University*
University of Nebraska

NEW HAMPSHIRE
Dartmouth Medical School

NEW JERSEY
University of Medicine & Dentistry of New Jersey

NEW YORK
New York Medical College*
SUNY at Buffalo*
SUNY at Stony Brook*
University of Rochester*
Weill Medical College of Cornell University

NORTH CAROLINA
Brody School of Medicine, E Carolina University
Duke University Medical Center
University of North Carolina at Chapel Hill*
Wake Forest University School of Medicine*

OHIO
Case Western Reserve University School of Medicine*
Northeastern Ohio University College of Medicine*
University of Cincinnati

OKLAHOMA
University of Oklahoma College of Medicine

OREGON
Oregon Health & Science University*

PENNSYLVANIA
Penn State College of Medicine
University of Pennsylvania School of Medicine
University of Pittsburgh*

SOUTH CAROLINA
Medical University of South Carolina
University of South Carolina

TENNESSEE
East Tennessee State University, Quillen College of Medicine*

TEXAS
Texas Tech University Health Sciences Center*
University of Texas Southwestern Medical Center at Dallas

UTAH
University of Utah School of Medicine

VERMONT
University of Vermont College of Medicine

VIRGINIA
Eastern Virginia Medical School*
University of Virginia School of Medicine
Virginia Commonwealth University*

WISCONSIN
University of Wisconsin Medical School*

CANADA
Dalhousie University Faculty of Medicine*
Memorial University of Newfoundland
University of Calgary*
University of Manitoba
University of Toronto Faculty of Medicine