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A Report on the Family Practice Clerkship Funding Program Compliance and Effectiveness Audit

May 1997

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Key Points of Report

A Report on the Family Practice Clerkship Funding Program Compliance and Effectiveness Audit

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Overall Conclusion

The Family Practice Clerkship Funding Program (Clerkship Program) produces benefits and should be continued, though it is difficult to specify the Clerkship Program's precise effect on medical education, medical practice, and physician supply in Texas. A better system for tracking medical students, clerks, residents, practicing physicians, and medical market conditions would simplify determining the effect of the Clerkship Program and other medical education programs. Opportunities exist to improve the efficiency and effectiveness of the audit process. All medical schools are in compliance with all statutory provisions on the levels and uses of funds, clerkship curricula, and required examinations.

Summary of Recommendations

Medical schools could enhance the clerkship experience by lengthening the clerkship, requiring electives and/or rotations in rural or underserved areas, strengthening market research links with clerkship communities, bolstering clerkship evaluation, increasing Family Practitioner representation on admissions committees, and expanding efforts to recruit students and faculty from rural and underserved areas.

The Legislature might consider continuing the Clerkship Program as a separately appropriated strategy, expanding incentives to attract Family Practitioners to rural and underserved areas, using Clerkship Program funds used to improve interfaces between clerkship sites and medical schools, exploring how managed care entities might contribute to the clerkship, and routinely assessing the reasonableness of the goal that 25 percent of all residencies be filled in Family Practice.

The State's ability to track medical students, residents, physicians, and medical market trends could benefit from expanding contact between the various entities involved in the tracking system, finding ways to support the estimated \$60,000 annual cost of resources needed by the Texas State Board of Medical Examiners to improve the data stream, standardizing key definitions and data elements, using regular surveys and questionnaires, developing better indices of physician supply adequacy, and interfacing with other data systems.

The audit process could better align with established low risk of noncompliance and low materiality by eliminating the audit, combining the audit with the Texas Higher Education Coordinating Board's annual audit of the Family Practice Residency Program, using performance measures to certify accountability, and/or auditing less often or less regularly.

With a few minor exceptions, the medical schools generally agree with the recommendations in the report.

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This financial compliance and effectiveness audit was conducted in accordance with the General Appropriations Act, Article III, Section 30 (III-249).

Overall Conclusion

The Family Practice Clerkship Funding Program (Clerkship Program) produces benefits and should be continued; however, specifying the Clerkship Program's precise effect on medical education, medical practice, and physician supply in Texas is difficult. A more comprehensive and better integrated system for gathering and reporting basic information on medical students, clerks, residents, practicing physicians, and medical market conditions would simplify determining the effect of the Clerkship Program and other medical education programs.

Opportunities also exist to improve the efficiency and effectiveness of the process used to audit the Clerkship Program. Clerkship Program expenditures at each school are sufficient to meet minimum legislative requirements. Each school has adequate systems in place to ensure that Clerkship Program expenditures are properly accounted for and do not reduce funds available for other Family Medicine Department activities. Each school also has established and uses both a Clerkship Program curriculum and examination, as required by the rider (see Appendix 2).

Section 1:

The Clerkship Program Produces Benefits and Should Be Continued, Though Specifying Its Precise Effect Is Difficult

Multiple indicators suggest that the Clerkship Program benefits the State of Texas and should be continued. However, several factors complicate specifying the Clerkship Program's exact contribution to medical education, medical practice, and Texas' supply of Family Practice residents and physicians. Primary among these factors are the presence of numerous interrelated variables, including market forces, and inconsistencies in the methods used to gather and report data on medical students, clerks, residents, practicing physicians, and conditions in the medical marketplace.

Representatives of Texas' medical schools, the Texas Higher Education Coordinating Board, Center for Rural Health Initiatives at the Texas Department of Health, Texas Medical Association, and the Texas Academy of Family Physicians generally concur that the Clerkship Program is beneficial. Though some stakeholders voiced concern that the Clerkship Program is an unfunded mandate, a consensus nonetheless exists that it positively affects medical education and physician supply and should therefore continue. Among specific benefits noted are that the Clerkship Program:

- Increases the supply of Family Practice residents and physicians and demonstrates the benefits of both Family Medicine and work outside an urban area
- Expands the length, depth, and quality of medical student exposure to Family Practice

- Enhances both medical education and the development of Family Medicine programs
- Elevates the prestige and income potential of Family Practice
- Expresses the State's commitment to Family Practice
- Highlights the need to monitor physician supply in Texas
- Contributes to medical school accreditation and grant application processes

While the above evidence is largely qualitative or indirect, quantitative data from residency program match statistics also indicate some success, even in light of generally flat medical school graduates since 1988 (see Figure 1). For example:

- The overall number of medical school graduates entering Family Practice residency in Texas rose from 93 (8 percent of graduates) in 1992 to 157 (14 percent of graduates) in 1996 (see Figure 2).
- The overall percentage of medical school graduates entering Family Practice residency rose from 13 percent in 1992 to 21 percent in 1996 (see Figure 3).
- Since the Clerkship Program's inception, an average of 35 (17 percent) more medical school graduates enter Family Practice residency each year, as compared to pre-Clerkship Program years.
- An average of 27 (20 percent) more medical school graduates enter Family Practice residency in Texas each year than in pre-Clerkship Program years.
- The average annual percentage of Family Practice residents doing residency in Texas has risen 2 percent, an overall increase of 4 percent, over pre-Clerkship Program years.
- Six of eight schools increased their number of Family Practice graduates between 1995 and 1996.

However, one should not infer that the Clerkship Program alone has produced the above increases since numerous other factors contribute to the decision to enter Family Practice as an area of study, residency choice, and profession. Isolating the effect of the Clerkship Program, especially on physician supply, is generally impossible because:

- While an 89.2 percent correlation exists between completing a Family Practice residency in Texas and then entering such practice in Texas, residency data are only proxies for changes in physician supply and do not fully account for all categories of individuals who study medicine and then practice in Texas (see flow chart at Appendix 3).

Figure 1

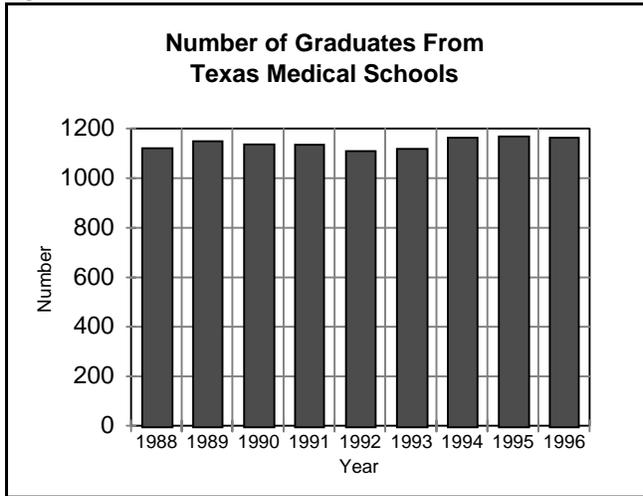


Figure 2

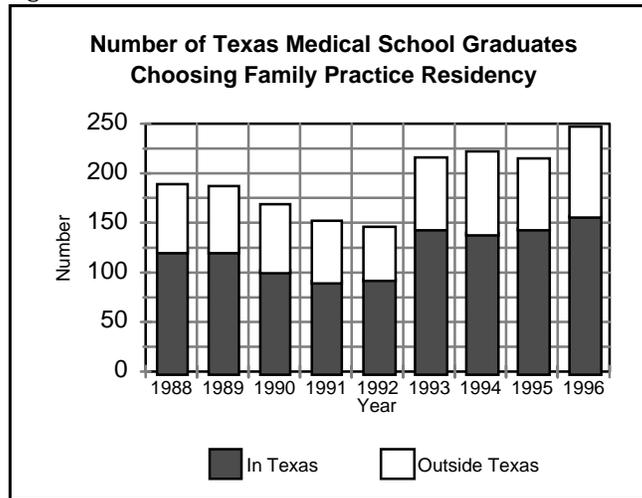
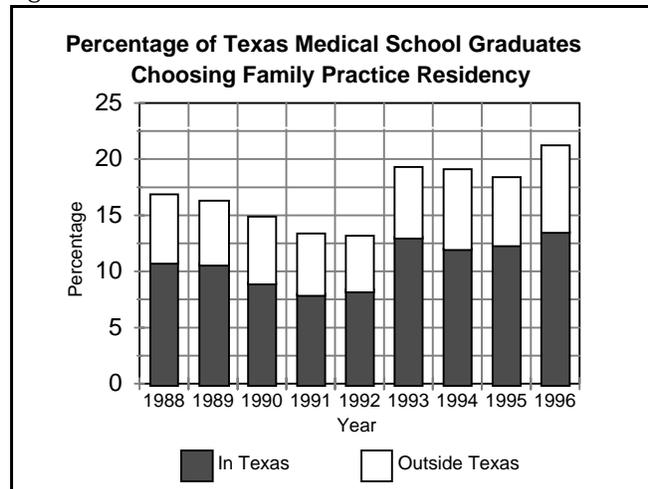


Figure 3



- Available residency data tend to come from secondary sources and are often self-reported and unaudited, particularly in pre-Clerkship Program years. Some data used in prior years are no longer collected.
- Since seven years typically elapse between entering medical school and practicing medicine, exploring program effectiveness now may be premature.
- Only 93.8 percent of Texas' licensed Family Practitioners provide direct patient care. The other 6.2 percent are in either administrative, academic, or research positions. Thus, tracking the number of licensed Family Practitioners, also self-reported data, does not fully indicate Texas' supply of practicing family doctors. This loss of 6.2 percent is also ignored when using residency data to predict Family Practitioner supply. The effect can be material. For example, a 6.2 percent reduction in the number of Family Practice residents lowers the 157 noted above to 147 as a predictor of future physician supply.

Of further concern is that the following prioritized factors known to enhance the probability of pursuing Family Practice as an academic major, residency preference, and professional choice have not been systematically or routinely studied in Texas since 1990 (see questionnaire at Appendix 4):

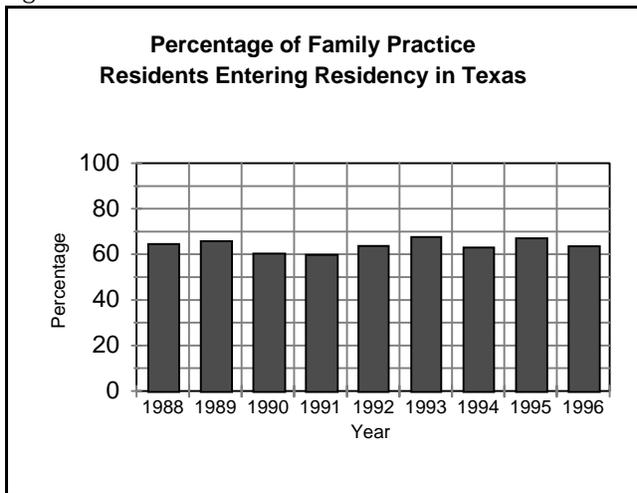
- Adequacy of practice support, including hospitals, physician backup, and links with the medical schools and the profession
- Preference for, background in, and exposure to rural and underserved areas, factors that appear to quintuple the probability of entering Family Practice and double the probability of practicing in a rural or underserved area
- Residency location, noting that nearly half of Primary Care physicians practice within ten miles of their residency site, 70 to 80 percent practice within 60 miles, and some 90 percent practice within 100 miles
- Differences between the incomes of rural and urban physicians
- Composition and practices of medical school admissions committees, noting that favoring candidates from rural and underserved areas makes their practicing Family Medicine in such areas seven to ten times more likely
- Depth, length, and timing of exposure to Family Practice during medical study, clerkship, and residency and faculty role modeling during such exposure
- Background of and employment opportunities for the physician's spouse
- Post-graduate debt, now averaging \$60,000 in Texas, even though 90 percent of respondents to the 1990 study ranked debt as a trivial factor

- Availability of loan forgiveness and other incentives for those agreeing to practice in underserved areas

The expansion of managed care also introduces market forces that further complicate assessing Clerkship Program effectiveness, particularly its influence on practice location. The demand of Texas' managed care systems for Family Practice physicians, the gatekeepers of managed care, outstrips the supply of medical school graduates. And, since managed care organizations generally locate near where consumers reside, this supply gravitates to Texas' urban centers where graduates can easily find work, avoid being on call nights and weekends, and earn higher salaries with which to elevate both quality of life and medical school debt service. Recent data indicate that 85 percent of both Family Practice and Primary Care doctors practice in areas of 10,000 or more inhabitants and that Family Practitioners are retiring faster than they are being replaced.

This urban drain of physician supply joins with both the metropolitan location of most Family Practice Clerkship Program and residency sites and the tendency of residents to practice near their residency site to leave much of Texas without physician coverage under either the clerkship, residency, or medical practice. Such maldistribution is evidenced by the generally persistent shortage of physicians in Texas' non-urban areas particularly in the Panhandle, South Texas, and West Texas between 1990 and 1996. Managed care expansion also limits physician coverage by reducing the number of Clerkship Program and residency training sites, noting that managed care entities may view time spent on physician education as a lost opportunity for profit generation.

Figure 4



Texas may lack the resources needed to substantially redirect physician supply in a marketplace like that just described. The State may also have problems realizing its goal that 25 percent of all first-year residencies be filled in Family Practice (Texas Education Code, Section 51.918[d][1]). This is true since:

- Fewer than 25 percent of all Texas' first-year medical residencies are in Family Practice. In 1996, this percentage was only 21 percent (247 of all residencies), up from 17 percent during 1993 and 1994.

- Clerkship Program funding and Family Practice graduates and residents are projected to remain flat through 1997.
- In 1996, only 22 percent of medical graduates selected residency in Family Practice, and only 64 percent of these graduates plan residency in Texas, a figure showing little change since 1988 (Figure 4). Note that the product of these numbers, 14 percent, represents the joint probability of both entering

Family Practice residency and doing so in Texas. This percentage is well below the 25 percent goal and still does not account for changes in academic major or residency program, migration outside the State, or other factors which might further lower this figure.

- Historically, only 12 percent of Texas' currently licensed Family Practitioners graduated from a Texas medical school.

Recommendations:

Despite these complexities in the medical marketplace and analytical environment, the Clerkship Program should continue. Texas is better off with the Clerkship Program than without it, although separately appropriating, rather than earmarking Clerkship Program funds may be preferable. Other refinements to the Clerkship Program and related activities would also help it more fully reflect and influence factors known to encourage entry into Family Practice, particularly in underserved areas. The refinements listed below should be applied as the circumstances, market conditions, and capabilities of each medical school warrant:

- Expand medical school involvement in and student exposure to rural and underserved medical and educational experiences. Possible steps include earmarking Clerkship Program funds for rural or underserved rotations, expanding rural or underserved rotations and residencies, and mandating a rural or underserved elective and/or rural or underserved rotation. Such electives and rotations are mandatory in some states, such as Colorado, Nevada, and Mississippi. However, they are optional in Texas.
- Lengthen the clerkship to the fullest practical extent, and expose students to Family Medicine at the earliest appropriate time in the medical curriculum.
- Strengthen links with communities, particularly in underserved areas, to enhance student and physician recruitment, residency, and retention. Stronger links would help monitor local market conditions, target clerkship and residency activities to such conditions, and more fully inform clerkship, residency, and physician supply planning.
- Coordinate clerkship and residency rotations to maximize both clerkship training opportunities and Family Practitioner coverage, especially in rural and underserved areas. Place clerkships and residencies in such areas far enough away from existing hospitals to ensure good patient flows yet close enough to hospitals to facilitate adequate training. Further, ensure that new clerkships do not duplicate existing preceptorships.
- Bolster evaluation of clerkships, and base funding on educational quality and the consistency with which each clerkship contributes to supplies of Family Practice residents and/or practitioners.

- Expand both Family Practitioner representation on medical school admissions committees and efforts to recruit students and faculty from rural and underserved areas who possess the characteristics and aptitudes sought in Family Practitioners.
- Ensure that each Clerkship Program’s supervisors and students are fully informed about and regularly coordinate with the various programs currently supporting the clerkship, residencies, and medical practice in rural and underserved areas. At least ten such programs already exist in Texas’ state government apparatus.
- Finally, work with the Texas Legislature to:
 - Establish a trust fund or grant pool to which medical schools could apply if they establish clerkships in and/or send residents to underserved areas.
 - Expand flexibility in Clerkship Program fund use, while taking care to ensure that such flexibility directly benefits medical education. Possible uses include funding faculty, resident, and clerk travel to and from the more remote clerkship sites and the main campus for continuing education and consultation; and enhancing computer systems and Internet links at such remote sites.
 - Develop means through which managed care organizations, often the ultimate beneficiaries of medical education, contribute to Clerkship Program expenditures and operations.
 - Add loan deferment, loan guarantees, salary guarantees, interest forgiveness, signing bonuses, and/or tax breaks to the incentives available to students who complete a clerkship and residency in a rural or underserved area and then return to such areas to practice. Consider offering preferential loan repayment options as well.
 - In light of changes in both medical school operating environments and Texas’ medical marketplace, routinely assess the reasonableness of the goal that 25 percent of all residencies be filled in Family Practice.

Section 2:

Better Data Systems Would Help Determine the Effect of the Clerkship Program and Other Medical School Programs

The data required to more precisely determine the marginal impact of Clerkship Program investments on resident and physician supply generally exist. However, current data gathering and reporting methods are not consistently well coordinated, and gaps in the data stream have existed for many years. At least ten entities are

involved, but no single entity or group of entities fully tracks students from their entry into medical school, through the clerkship and residency, and into medical practice (see Appendix 3).

A more comprehensive and better integrated tracking system would help assess the marginal returns on investments in the Clerkship Program and other medical education programs, and better determine the extent to which the intent of the Clerkship Program rider and other medical education legislation is actually serviced. The last study found during the audit that tracked a single year's graduates from each Texas medical school to Family Practice in Texas was done in 1988.

The present system within state entities does not routinely gather basic data on student, graduate, and practitioner demographics, professional activity, location, and migration (25 percent of Family Practitioners move at least once, according to the 1990 study of factors known to enhance the probability of pursuing family practice). Specific problems include:

- Medical schools could track individual students, graduates, clerkship participants, and residents. However, interfaces between alumni offices and medical schools are often weak; alumni offices may lack needed data; and variation exists in the depth, scope, and regularity of tracking methods used.
- The Texas Higher Education Coordinating Board (Coordinating Board) provides aggregate data on individuals completing Family Practice residencies since 1979. However, the data are overwritten each year, thus complicating trend and longitudinal analysis.
- The Texas State Board of Medical Examiners (Medical Examiners Board) provides cumulative data on the number of graduates from a given school licensed as Family Practitioners in Texas but cannot separate these data by year of graduation. The Medical Examiners Board also aggregates residency match data at the state level, but these data do not track individual schools or specialities. Moreover, the Medical Examiners Board can neither provide historical data nor track when and in which direction specialty changes occur since such data are also overwritten each year.
- The American Medical Association can provide individual data on state of licensure, medical school(s) attended, and residency location(s), but these data must be purchased.

Also lacking is a system for tracking those factors and preferences which both drive students' residency and practice decisions and enhance institutional targeting of curricula to current and projected market conditions. Key factors and information not regularly tracked include:

- Expectations, impressions, and benefits of the clerkship or a rotation in a rural or underserved area

- Clerkship contributions to future decisions about specialty choice and practice location
- Personal and professional motivations for selecting a rotation in a rural or underserved area
- Effects of a student's background in rural or underserved areas
- Size of the community in which students intend to practice
- Adequacy of communications between the clerkship and rotation sites and the medical school
- Primary data on the market within which medical school programs operate

Thus, while the Texas Medical Association (Medical Association) notes that “correlating personal characteristics and medical training experiences with reported career plans allows making assumptions about the predictive value of such characteristics on practice selection,” the feedback needed for thorough understanding of students, the medical education process, and career choices is missing. While the existing system may not have been designed initially for such purposes, concerns over both physician supply and investment efficiency require that it now provide better information on students, clerks, residents, practitioners, and market conditions.

Inconsistencies are also noted in the definitions and data elements used in existing data schemes. Definitions are neither standardized nor consistently used across entities. For example, the definition of and data on “Primary Care” used by different entities can either include or exclude Obstetrics and Gynecology. Moreover, no protocol was noted on whether or how to track and report Family Practice as a secondary specialty, data that may raise practitioner numbers by 3 to 5 percent.

More broadly, a good definition of supply adequacy is lacking, such that entities tend to base decisions only on medical need and not on consumer demand when (re)deploying physician, financial, or Clerkship Program resources. However, as noted in a study done by the School of Public Health at The University of Texas Health Science Center at Houston, “need is rarely a factor in a physician’s practice location decision,” an assertion borne out by the absence of medical need among the factors listed as influencing student, resident, and physician decisions noted above.

This study also notes that “numerical ratios of physicians to population have very limited utility as a criterion of (supply) adequacy” and that typical approaches to physician manpower issues must include a marketing approach. Thus, physician supply management systems must differentiate and jointly assess both need and demand. Without demand information, one cannot specify which communities can and cannot support one doctor, much less the two physicians needed to share practice and avoid burnout.

Consensus exists among all entities involved that a better data gathering and reporting system is needed. The medical schools have agreed to work with the Medical Association, the Coordinating Board and Medical Examiners Board to improve the system. The Medical Association and Medical Examiners Board have worked over the last six years to address this issue, and the Medical Association has established a task force to explore data system refinement. However, lack of funds and dedicated staff have consistently constrained the effort to yield only incremental results.

The Medical Examiners Board has agreed to provide space for such dedicated staff and estimates that the cost of a full-time equivalent employee (FTE), benefits, computer, software, and data purchase needed to develop a better data system is \$60,000. However, adding such a person to the Texas State Board of Medical Examiners' full-time staff would require revision of its FTE cap.

Recommendations:

A more integrated and detailed system for tracking and reporting basic information on students, graduates, residents, and physicians would benefit not only the Clerkship Program but other areas of medical education and physician practice in Texas. The following suggest general steps toward this end:

- Support and enhance past efforts to establish a better data system, ensuring that representatives of all relevant entities participate, including:
 - All Texas medical schools
 - Texas State Board of Medical Examiners
 - Texas Higher Education Coordinating Board
 - Texas Department of Health
 - Center for Rural Health Initiatives
 - Texas Medical Association
 - Texas Osteopathic Medical Association
 - Texas Academy of Family Practitioners
 - Legislative Committee on Public Health
 - State Auditor's Office
 - Other agents deemed appropriate by these entities
- Under interagency contract, intern acquisition, cost sharing, or other suitable means, fund the estimated \$60,000 cost of dedicated support for this effort. Consider funding this effort from an appropriate combination of Clerkship Program funds, residency funds, other medical school or state agency funds, professional association support, or other sources.
- House the function at the Medical Examiners Board since the Medical Examiners Board already gathers and reports statewide data on numerous types of medical professionals and does so at the output of the entire medical education process.

- Ensure that the revised data system:
 - Surveys process participants and end users to specify information needs
 - Defines and deploys standard data elements and standard definitions of terms for initial critique and ultimate use by all
 - Maintains and uses annual data to facilitate comparative, trend, and longitudinal analyses
 - Standardizes and reports on indices of both medical need and consumer demand, particularly for rural and underserved areas, and uses such reports to inform decisions on curriculum change, program (re)design, and physician supply, working with managed care organizations as sources of demand data as appropriate
 - Reports data which consistently differentiate medical professionals who practice from those who teach, administer, or perform other services beyond direct patient care
- Remove barriers to data flow created by excessive claims of confidentiality, based on, if needed, decisions of the Attorney General's Office.
- Gather and report specific data on the demographics, preferences, choice factors, location, migration, and medical activities of students, clerks, graduates, residents, and practitioners either by enhancing current data instruments (including surveys, questionnaires, and licensure forms) or by developing new techniques.
- Develop alumni offices as sources of additional information on data elements of interest.
- Consider possible interfaces with other related systems. A possible candidate is the HINET system at The University of Texas Health Science Center at San Antonio, which purports to track data for 1,200 data items on citizens in each of Texas' 254 counties. Categories tracked include education, socioeconomic, housing, health and human resources, health status, and demographics.
- Pilot test and fully critique the revised process, evaluate the usefulness of data generated, and alter the system accordingly.

Opportunities Exist to Improve the Efficiency and Effectiveness of the Current Audit Process

The current audit process is neither an efficient nor effective investment of the resources of Texas medical schools or the State Auditor's Office. Various facts support this assertion:

- Risk of noncompliance with the rider is very low given that Texas' medical schools have generally overcomplied with Clerkship Program expenditure requirements, implemented adequate accounting controls to ensure that Clerkship Program funds do not supplant funds in other areas of family medicine departments, and institutionalized both the curriculum and student examination required in the rider.
- Since demand for Family Practitioners is rising, medical schools will continue to increase investments in producing such physicians in the foreseeable future.
- The \$3.66 million Clerkship Program investment comprises only .4 of 1 percent of all education expenditures in Texas' public medical schools. It accounts for only .6 of 1 percent of all General Revenue funds used to support public medical education. Moreover, the average per-school Clerkship Program investment required by the rider is only \$458,000.
- Stakeholders interviewed during the audit, including medical school internal auditors, stated that both risk and materiality were low and that, as a result, the present process encourages over-auditing.
- Key representatives of several medical schools stated that measuring performance under the rider, rather than compliance with it, would be a better accountability mechanism and would better align with the rider's ultimate intent to increase Texas' supply of Family Practitioners.

Recommendations:

Several options for improving the current audit process are discussed below. These options may be considered singly or in combination:

- Eliminate the audit altogether. This option would:
 - Align well with established low compliance risk
 - Recognize low dollar materiality
 - Liberate audit resources for use in more substantive areas of stakeholder concern

- In the case of Texas' public medical schools, combine the audit with another related routine audit, such as the required audit of the Family Practice Residency Program already conducted each year by the Texas Higher Education Coordinating Board. The Coordinating Board and the public medical schools are generally amenable to this approach, particularly since the Clerkship Program audit resembles the Coordinating Board audit in nature and scope. This approach would:
 - Coordinate currently separate audit processes to avoid duplication of effort.
 - Restore an annual (rather than biennial) review of the Clerkship Program.
 - Place the Clerkship Program review in a context of higher materiality.
 - Enhance the participation of medical school internal auditors in Clerkship Program reviews, thereby enhancing the timeliness and thoroughness of responses to requests for audit information.
- Use performance measure certification by the State Auditor's Office, Texas Higher Education Coordinating Board, and/or medical school internal auditors to assess progress toward the goal of increasing Texas' supply of Family Practitioners. This method would consume fewer audit and medical school resources.

One approach is to focus audit work on certifying existing measures. Note that all of Texas' medical schools already use measures that track the number of graduates entering Family Practice or Primary Care residencies. Another alternative is to revise existing performance measures to better align with the goal of enhancing Family Practitioner supply. Several increasingly strict revisions are possible:

- Track the number or percentage of each medical school's graduates who enter Family Practice residencies in Texas.
- Track the number or percentage of each medical school's graduates who enter Family Practice residencies in medically underserved areas of Texas, as "medically underserved" might be consensually defined by all relevant stakeholders. This approach would tighten the existing relationship between the Clerkship Program rider and Section 51.918 of the Education Code, which addresses the supply of family practitioners in often underserved rural areas.
- Track the number or percentage of each medical school's Family Practice residency graduates practicing in Texas. This measure is tracked in the aggregate by the Coordinating Board but is not tracked at the level of the individual medical school.

- Track the number or percentage of each medical school's Family Practice residency graduates practicing in medically underserved areas of Texas, again as "medically underserved" might be consensually defined. This method would also further the relationship between the Clerkship Program rider and Section 51.918 of the Education Code.

While any or all of the above options could be taken, performance measures should, where possible:

- Be customized to respond to the local conditions and realistic capabilities of each medical school and to the Family Practice Residency Programs with which the medical schools work.
- Facilitate interschool comparisons and trend analyses by employing either raw numbers or percentages across all schools and avoiding the use of a "Family Practice" measure at one school and a "Primary Care" measure at another.

Other possible refinements exist, regardless of the options taken from those listed above:

- Automate the audit response process to the fullest extent possible, perhaps through the use of a standardized spreadsheet template. This would accelerate both response time and data analysis.
- Standardize data-gathering instruments, and use identical instruments over time to facilitate longitudinal studies of measures of interest.
- Based on ongoing assessment of risk, materiality, and market conditions, determine when desk reviews, certification of selected performance measures, and/or spot checks of information constitute adequate assessments of compliance, performance, and program controls.
- Determine if historically low compliance risk warrants auditing less often or at less regular time intervals.

Section 4:

Each Medical School's Clerkship Program Expenditures Meet Minimum Legislative Requirements

In both fiscal years 1995 and 1996, all eight medical schools expended more money on their Clerkship Programs than required by the rider. Per-student expenditures ranged from \$2,610 to \$22,601 in fiscal year 1996 and from \$2,601 to \$22,452 in fiscal year 1995. The range of these expenditures can be attributed to the nature, scope, and focus of the Clerkship Program curriculum, per capita administrative costs of Clerkship

Program operation, differences in institutional and in-kind support, and variation in medical school enrollments.

The statute does not stipulate how Clerkship Program funds must be spent. Schools generally expended or allocated Clerkship Program funds for faculty salaries and benefits, travel and housing for students at clerkship sites, computer software and equipment, and administrative support. In testing for the reasonableness of such expenditures in fiscal year 1996, sample transactions were traced to source documents to ensure proper accounting treatment. No exceptions were noted. Because no issues or concerns arose regarding the reasonableness of expenditures for 1996, no testing was performed on expenditure data for fiscal year 1995.

In addition to actual expenditures of funds, seven of the eight schools received voluntary in-kind support from their respective medical communities. Most of this support came from local physicians providing clerkship students various types of clinical and patient interactive experiences. The level of voluntary support was significant at several schools and was at times valued at a level above the Clerkship Program expenditures required by the rider. In general, schools with lower Clerkship Program expenditures tend to have higher levels of voluntary support.

Section 5:

All Medical Schools Have Accounting Systems In Place to Ensure That Clerkship Program Expenditures Are Adequately Accounted for and do Not Reduce Funds for Other Family Medicine Department Activities

Receipt and expenditure of Clerkship Program funds at all eight Texas medical schools are properly accounted for. Accounting information was obtained on the sources and uses of funds. This information was reviewed for reasonableness and traced back to the general ledger. All expenses examined, except those for faculty salaries, appeared to be actual expenses rather than allocated expenses.

The allocation of faculty salaries was separately reviewed in more detail and was determined to be based on reasonable, reliable, and materially accurate methodologies. The allocations were based on the actual time spent by each faculty member assigned to the Clerkship Program. The allocated salaries of a sample of faculty members at each school were traced to the general ledger and agreed without exception.

Though not required by the rider, seven of the eight schools integrate Clerkship Program accounting with their family medicine departments' general ledger system. Such specific tracking of Clerkship Program expenditures enhances accountability by increasing the monitoring and control of such expenditures.

Medical school expenditures for both the Clerkship Program and Family Medicine Departments generally increased from 1995 to 1996. This indicates that funds

available for such departments have not been reduced because of Clerkship Program activities and related expenditures.

Section 6:

Each Medical School Has Established and Uses Both a Clerkship Program Curriculum and Clerkship Program Examination

The Clerkship Program rider stipulates that all schools establish a curriculum for the Clerkship Program during the third core clinical year of medical school training. Each school has formalized such a curriculum, though its length varies from 4 to 16 weeks, depending on the specific school. A copy of the curriculum was obtained from each school and compared favorably both to the curriculum reported independently to the Coordinating Board and to the course descriptions presented by the schools.

All schools are also required to administer an examination to all students participating in the Clerkship Program. Since the rider does not specify the nature of this examination, its format, content, and scope differ between medical schools. The purpose of including the requirement for an examination was to differentiate the Clerkship Program from previous voluntary and non-compulsory preceptorships.

Where possible, a copy of the examination was obtained from each medical school. Several of the schools use a standardized National Board examination, copies of which were not available owing to a desire to maintain the security of the document. A sample of students was selected and their test scores were traced to applicable source documents. No exceptions were noted.

Managements' Responses

The University of Texas Southwestern Medical Center at Dallas

We are in agreement with your recommendations from this audit and would like to comment on the following areas.

- *Many students report to us in their course evaluations that the clerkship is too brief. Lengthening the rotation is a desirable goal, but would require the department to develop additional resources for that purpose. When this is consistent with institutional curriculum plans, the department is prepared to do so.*
- *We believe that exploring means through which HMO's might contribute to clerkship funding is a great idea. HMO leadership would have to be convinced of the value or need for this program.*
- *Combining the Clerkship Program audit with other external or internal audits or by increasing the time between audits would save State resources.*
- *Mandating clerkship experiences in rural and underserved sites raises significant concerns related to funding and other resources. Elective and selective preceptorships in such sites are already offered statewide with funding support from THECB. The required clerkship is a structured educational experience with written objectives, well-defined curriculum materials, specified clinical content, written examination, and detailed course evaluation. The preceptorships are more viable, depending on the practice circumstances of the preceptor, and require a lower level of commitment of resources by the department and by the supervising preceptors. If new sites are developed for clerkship rotations, they must be comparable to the existing clerkship sites, rather than duplicating the preceptorships.*
- *We agree that the Legislature should allow more flexibility in the use of the clerkship funds for enhancing Internet linkages to remote sites, especially to community faculty offices.*
- *Data reflecting direct patient care effort is potentially misleading, and is derived mainly from self-reporting survey methods. Even physicians in traditional private practice settings spend time in activities other than direct patient care, such as hospital and clinic committees, continuing education courses, completing administrative duties, volunteer teaching, and community activities. At the other end of the spectrum, physicians in teaching or administrative roles may still spend most of their time providing direct patient care. The 93.8% figure probably reflects self-reporting descriptive categories but does not account for the direct services provided by the remaining 6.2%.*

The University of Texas Medical Branch at Galveston

UTMB agrees that the current audit process does not align well with the established low compliance risk and does not recognize the low dollar materiality of clerkship funding on medical school campuses. It is not clear how combining the clerkship audit with the Family Practice Residency Program audit would improve such alignment.

We would support any of the other approaches mentioned in the recommendations as long as the measurement criteria are clearly and uniformly defined and the nature of the certification or audit process is communicated in a timely and effective manner.

If the decision as to the timing and scope of the audit activities were delegated to the medical school level, it would be our estimation that current clerkship funding levels and the relatively low risk of non-compliance would result in audit activity approximately every fifth year at UTMB.

Interim Chairman's Response

Thank you for the opportunity to review the "Response Draft of the Family Practice Clerkship Funding Audit Report" from Mr. Bruce Truitt. While I was secondarily involved in the process in past months, my staff had the opportunity to complete the review. They have provided me further insight to the audit process and the draft report.

We offer our general support of the audit report with particular emphasis on the following areas.

The legislative directives concerning medical school curriculum is sometimes perceived to be overstepping the bounds of their expertise. However, the Family Medicine Department has a philosophical agreement with the directive.

The current length of our Family Medicine Clerkship is four weeks. Further exposure through the Multidisciplinary Ambulatory Clerkship (MAC) provides our students with a solid base of primary care training. We believe this to be the appropriate structure and recommend continuation of the required Family Medicine Clerkship as a separate experience from the MAC.

The outcomes of this funded clerkship on physician practice choices are more difficult to evaluate. We support further efforts to track within the state the effect of the curriculum structure on career choices. A coordination at the state level of all efforts to track practitioners would provide better data to support the effort to place more family doctors in underserved areas of the state.

Efforts to support rural Family Practice may further be pursued by the other financial incentives, to go along with those of the clerkship requirements and early exposure to rural practice.

The audit process itself could be coordinated with other state reporting requirements. This may provide consistency in reporting and ease of the audit saving resources to focus on other areas of interest by the auditor's office.

Vice President for Academic Affairs and Dean of Medicine's Response

I agree with the auditors that the funding of the clerkships represents a low compliance risk, and I would accept their recommendation that the audit be discontinued.

It is also clear that additional funding of family medicine programs in such areas as family medicine residency training and augmentation of clerkship experiences could be materially supported by additional appropriated funds.

The University of Texas Health Science Center at San Antonio

Thank you for the opportunity to review and comment on the "Response Draft of Family Practice Clerkship Funding Audit Report."

We believe the audit was conducted in a most professional manner with considerable opportunity for rich discussion about many aspects of medical education and Family Practice in particular.

With one minor exception, I have restricted my comments to the recommendations because I have no major disagreements with the factual content of the report. The following comments refer to the Recommendations.

Summary of Recommendations for Audit Process Enhancement [Section 3]:

Under the first bullet in this section: Of the options listed, I favor the first, "eliminating the audit." Such a decision would in no way affect this School's commitment to Family Practice or the third year clerkship. The second option, "combining the audit..." may be favored by Family Practice departments that are concerned about diminishing funds absent an audit. Option three, "using performance measures certification..." is not practical because too many factors influence career choice besides the clerkship itself.

Despite these complexities in the medical marketplace and analytical environment, the clerkship program should continue.... [Section 1]

Under the first bullet in this section: Expanding medical school involvement in and student exposure to rural and underserved medical and educational experiences is a good idea. Mandating such programs should proceed with caution and certainly not without appropriate funding with new monies. Someone must bear the cost to relocate the students, provide travel, housing, etc. To shift clerkship funds from the existing program would be disastrous for those programs.

[Regarding the definition of] *What Constitutes Primary Care* [Section 2]

There is controversy within medicine regarding whether or not Obstetrics/Gynecology should be included as a primary care discipline. Until there is agreement, statistical data for Texas might identify the specific components, thus permitting one to compare primary care data from multiple national, regional, or state perspectives. Also note that when physicians report Family Practice as a secondary specialty, it usually means they have trained or certified in Family Practice, but are now involved with another specialty. It probably is not appropriate to count these physicians as practicing primary care or Family Practice, any more than it makes sense to count a Cardiologist as providing primary care because of prior training in Internal Medicine.

Texas A&M University Health Science Center

Thank you for the opportunity to respond to the draft report on the Family Practice Clerkship Funding and Compliance Audit. Being relatively new in my position and coming from out of state, I am impressed with the State's commitment to primary care and, in particular, Family Practice. Texas A&M University College of Medicine has, since its inception, emphasized primary care by providing its students with early exposure to family medicine as well as other primary care specialties. Please be assured that I am fully committed to continue this emphasis as part of the mission of TAMU College of Medicine in serving the needs of the citizens of the State of Texas with an additional focus on rural health and health education issues. In addition, plans are underway to initiate a unique program to attract high quality students from rural Texas by offering early assurance of admittance and pre-clinical experiences during formative years of higher education.

Responses to the recommendations for Medical School Action:

1. *Lengthen the clerkship to the fullest practical extent, and expose students to Family Medicine as early as feasible in the medical education curriculum.*

In contrast to the other Texas medical schools that have a basic four week clerkship in the third year, Texas A&M University College of Medicine has always had a six week clerkship. In fact, there have been initial discussions to consider the feasibility of expanding this experience. The Family Practice literature does support an eight week clerkship since it gives the best continuity for medical students and, as a consequence, has the highest impact on the medical student attitude toward Family Practice. However, the literature also supports the fact that six weeks is a reasonable compromise.

*Medical students at TAMU College of Medicine, since its inception, have been provided the earliest possible exposure to primary care and, in particular, family medicine and family physician role models through required first and second year courses. A constellation of courses, *Becoming a Clinician*, are offered in years one and two. This collection of courses includes: *Introduction**

to Patients and Introduction to Physical Diagnosis as well as the year-long second-year Family Practice preceptorship program. Additionally, we have always had an impressive number of students participate in the State-wide Family Practice Pre-Clinical Preceptorship Program.

2. *Consider mandating a rural/underserved elective and/or rural/underserved rotation.*

TAMU College of Medicine now utilizes five rural sites for its Family Practice Clerkship. Moreover, planned, programed TAMU rural health care initiatives will expand opportunities for additional family practice clerkship rotations in rural Texas. These programs are planned to begin in 1997-98.

3. *Establish stronger market research linkages with communities, particularly those in rural and underserved areas.*

Research into the needs of rural Texas is a major emphasis of Texas A&M University Health Science Center's School of Rural Public Health. Recent efforts by the Department of Family and Community Medicine compliments the emphasis on research and outreach of the School of Rural Public Health. These efforts would then be linked with the already well established rural delivery system that TAMU's clinical partner, Scott & White, has been able to implement over the past fifteen years.

TAMUHSC has multiple community outreach and research initiatives in progress through its newly established School of Rural Public Health. These initiatives will provide the linkages throughout the State which will enhance research opportunities for both the College of Medicine and the School of Rural Public Health. In collaboration with the Texas Agricultural Extension Service, the Blacklands Research Center in Temple and other Texas A&M University System components, the College of Medicine is well positioned to further enhance its major research emphasis on issues relating to medical and rural public health problems which is central to the mission of the college in serving the needs of the State of Texas and its citizens.

4. *More aggressively target clerkships to rural and underserved areas through better monitoring of market conditions and changes.*

Same as above.

5. *Bolster evaluation of clerkships, and base funding on educational quality and each clerkship's contribution to Family Practice resident and/or physician supply.*

The supply of family physicians to the State of Texas is a very high priority for TAMU College of Medicine. The College recognizes that demographic studies have shown that family physicians are more likely to establish practices in rural Texas than other specialties. TAMU College of Medicine is currently in

the midst of a national search to fill a newly created position of Associate Dean for Medical Education. A primary responsibility of this new post will be to further develop and implement the curriculum evaluation model and, at the same time, put in place mechanisms to examine the effects and efficiencies of TAMU College of Medicine's educational offerings and related impact as to TAMU College of Medicine goals of meeting the needs of the State.

It is worth noting here, that TAMU College of Medicine has enjoyed an impressive record of students entering family medicine as a percentage of class size. This record of accomplishment is well documented and has certainly been bolstered since the implementation of the third year clerkship.

6. Expand both Family Practitioners' representation on admissions committees and efforts to identify and enroll candidates and faculty from rural and underserved areas.

TAMU College of Medicine, in its re-organization of the Admissions Committee, added a number of family physicians to the committee in 1994. In addition, TAMU College of Medicine's innovative rural health education initiative will create new opportunities for students in rural areas of Texas to enter the medical professions. Planning is already underway to implement this unique program. This program will enable students from rural areas to obtain early acceptance to the College of Medicine and to receive substantial components of their total education in rural and underserved areas of Texas.

Responses to the recommendations for consideration by the Legislature:

1. Continue the clerkship program, preferably as a separately appropriated strategy.

It is not necessary to provide for this program as a separate funded strategy within the institution's appropriation pattern. Continuation of the mandate to include the clerkship in the curriculum could be built into the institution's performance "contracts" with the State. A separate rider is also no longer necessary. However, program enhancement and/or incentives should be considered for excellence.

2. Expand incentives designed to attract Family Practitioners to rural and underserved areas to include loan deferments, loan and salary guarantees, interest forgiveness, signing bonuses, and/or tax breaks.

TAMU College of Medicine will support any programs designed to improve access to quality health care for the citizens of Texas.

3. Develop greater flexibility in the usage of clerkship funds, particularly to develop better interfaces between clerkship sites and the sponsoring medical school.

TAMU College of Medicine has, since the inception of the mandated clerkship program, expended more funds than required to fulfill its goals and objectives regarding Primary Care and Family Practice.

4. Explore means through which managed care organizations might contribute to clerkship funding and operations.

TAMU College of Medicine has the extreme good fortune to have as its primary affiliate, Scott and White, an organization who itself has been involved with managed care health care delivery for well over a decade. Scott and White contributes in numerous ways to compliment this program as well as all of the educational programs at TAMU College of Medicine.

5. Reassess the reasonableness of the goal stating that 25 % of all residencies should be filled in Family Medicine.

TAMU College of Medicine and its affiliate are very comfortable with the current goal of at least 25 % of all resident slots being Family Practice. However, adequate funding needs to be provided to realize the benefits of the goal on a continuing basis.

Responses to recommendations for data system enhancement:

1. Encourage and support more routine contact and coordination between the numerous entities involved in gathering and reporting data on medical students, graduates, residents, physicians, and the conditions and trends in the marketplace for services.

TAMU College of Medicine wholeheartedly supports any efforts to coordinate data collection efforts resulting in reliable and accessible data for internal as well as external use.

2. Through interagency agreements, intern acquisition, cost sharing, or other appropriate means, fund the estimated \$60,000 annual cost of dedicating resources to the improvement of the medical school-medical profession data stream.

TAMU College of Medicine would support efforts and, in particular, dedicated funding to the improvement or medical professions database development.

3. Develop, deploy, monitor, and report on the use of standard definitions and data elements, regular surveys and questionnaires, and better indices of physician supply adequacy.

TAMU College of Medicine agrees.

4. Explore interfaces to and resource sharing with other existing data systems.

TAMU College of Medicine agrees with this recommendation.

Responses to recommendations for audit process enhancement:

1. *Align the audit process with historically established low risk of non-compliance and low materiality by exercising one of more of the following options:*

- *eliminating the audit*
- *combining the audit with the annual audit of the Family Practice Residency Program already done by the Texas Higher Education Coordinating Board or other appropriate review*
- *using performance measures and focusing such performance measures on physician supply outcomes*

The position of the TAMU College of Medicine is to eliminate the audit and using performance measures which focus on enhancements for meeting, and incentives for exceeding institutional performance “contracts” with the State. These measures should focus on physician supply “inputs” rather than physician supply outcomes. Medical schools have very little influence on their graduates after they enter their respective training programs.

2. *Enhance the efficiency of audit resource use by tailoring the audit to the conditions and capabilities of each medical school, ensuring uniformity in the performance indices used, standardizing and automating more of the audit response process, performing desk reviews in lieu of full audits, and/or auditing less often or at less regular time intervals.*

See response above.

University of North Texas Health Science Center

We appreciate the opportunity to respond to your draft report of the Family Practice Clerkship Funding Compliance and Effectiveness Audit. The report provides a well-organized and comprehensive overview of the history and expansion, development, implementation and the variety of problems of coordinating a state-wide program. The auditors need to be commended for their insight and keen observations.

The University of North Texas Health Science Center has long recognized the need for family medicine, specifically, preventive primary care and has directed significant resources toward the clerkship program. In addition, the number of retiring general and family practitioners may surpass the current graduates from Texas Family Practice residency programs necessary to replace them. This supports the wisdom of the Texas Legislature and the Texas Higher Education Coordinating Board to monitor and nurture methods such as the third year clerkships to reverse these trends.

We do have a few specific comments for your consideration ensuing from our review of the report draft.

1. *We disagree with the recommendation that the reasonableness of the goal stating that 25% of all residencies should be filled in Family Practice needs to be reassessed. The key data suggest that substantial progress has been made toward the goal: for 1996, 21 % of all first-year medical residents in Texas were in Family Practice, representing an increase from 17% in 1993-94. To abolish or lower the goal may not be useful to the state in increasing the supply of Family Practice physicians in Texas. Also, there has been a steady expansion in the size and number of Family Practice residency programs from 1992 to 1996 reflecting a greater total number of Family Practice graduates in Texas. This number is expected to increase through continued funding and expanding of the Family Practice and Primary Care Advisory Committees of the THECB. The 25% goal is attainable. Additionally, there has been no assessment of the annual attrition rate of retiring Family Practitioners. We believe the attrition rate is high enough to necessitate the 25% goal.*

2. *The recommendation to establish a better data system is an admirable one, recognizing an often overlooked need throughout the state.*

Our Director of Institutional Research is a member of the state task force to explore data system refinement. We believe the scope of the position identified by the Texas State Board of Medical Examiners is substantially narrower than that necessitated by the State Auditors Office recommendations. If so, it will cost the TSBME more than \$60,000 per year.

Also, to develop a more integrated and detailed data system for tracking and reporting basic information on students, graduates, residents and physicians may require additional staffing at each medical school; probably in the area of medical education as opposed to alumni affairs, or possibly both.

3. *Performance Measure Certification would be the best accountability mechanism to substitute for the current audit process*

The problem with existing performance measures is that they only track plans to enter Family Practice residency programs. If the goal is to track Family Practitioner supply as it relates to Texas medical schools, then other performance measures must be added. In particular, we should measure the practice type and location for all graduates of Texas medical schools five years after graduation. This would more accurately identify those specialists in Internal Medicine, Pediatrics, Obstetrics, and Family Practice who remain in primary care versus those physicians in other subspecialties during the fourth or fifth postgraduate year.

Regarding the other performance measures suggested: We should not require alternative measures that are difficult to measure. At present, it is very difficult to track graduates entering residencies and practicing in medically

under-served areas. First, a few residencies are predominantly located in medically under-served areas; a higher number have at least a few rotations in these areas. Second, it is difficult to tell whether a given practice location is located in a medically underserved area, especially for hundreds or thousands of graduates. At present, the two primary types of designations of medically under-served areas are Health Professional Shortage Areas (or Populations; HPSAS) and Medically Under-Served Areas (or Populations; MUA or MUP). Both of these types are defined in terms of census tracts. Geocoding software is necessary to translate street addresses into census tracts. To create any kind of uniformity, there would need to be a central provider of an electronic form of the accepted list of medically underserved areas for the State of Texas each year. An alternative that has been discussed would be for the State of Texas to define medically under-served areas for itself and track changes in these accordingly.

4. *Despite the number of graduates of Texas medical schools entering Family Practice, in 1996 33% of Family Practice graduates (7% of 21%) left Texas for residency training because there was an insufficient number of Family Practice training positions. It is for this reason that continued support for expanding both the number and size of Family Practice residency programs should continue. Additionally, data from the TSBME should be collected annually and used to identify the number graduating Family Practice residents returning to Texas. This data combined with the attrition rate may be helpful in assessing the true needs for primary care practitioners.*

Texas Tech University Health Sciences Center

Thank you for the opportunity to respond to the Family Practice Clerkship Funding Audit Report. Texas Tech University Health Sciences Center is proud to have had a required Family Practice Clerkship since the School of Medicine began in 1972, and is supportive of efforts to enhance this educational experience.

The overall recommendations contained in the report seem appropriate and beneficial. As you know, Texas Tech University Health Sciences Center is a leading institution in rural health care delivery, and we applaud the State's effort to place an emphasis on rural and primary care programs. We offer comments on a few of the recommendations for your further consideration.

Concerning the "recommendations for medical school action," we would like to suggest that "mandating a rural/underserved elective and/or rotation" may create considerable difficulties, especially in the large geographical area of West Texas. (Currently TTUHSC offers a rural opportunity as an elective in areas close to Lubbock, in the barrios of El Paso, and in Alpine for interested students.) Logistically, it seems that mandating such an experience for all medical students in Texas schools would precipitate scheduling problems throughout the state, creating a

competition among the medical schools of the state to place their students with qualified physicians in rural and underserved areas.

Also under the “recommendation for medical school action” the item regarding “evaluation of the clerkships being based on each clerkship’s contribution to Family Practice resident and/or physician supply” is an attractive idea. However, the educational goal of the clerkship is to impart a body of knowledge, attitudes and skills that will be useful to any physician, regardless of future specialization. Patients are better served and care delivered more efficiently and humanely if the surgeon understands what a family physician does and is capable of doing. A student's choice of a specialty may not reflect the quality of the clerkship. It may be more reflective of where the student was raised, the age and marital status of the student, the admission process, or any number of other unknown variables.

Under the detailed recommendations for medical school action, the item which contains the statement “strive to place clerkships and residencies in underserved areas far enough away from existing hospitals to ensure good patient flows” causes some problems as residency training programs must be placed close enough to a hospital in order to provide the necessary training for care of hospitalized patients thus compromising the accreditation of the residency program by the Resident Review Committee (RRC). However, some Family Practice Clerkships are totally ambulatory in nature and could take place in an area away from an existing hospital.

In closing, and in the interest of the most effective use of State resources, we agree with your recommendation to either eliminate the audit or combine it with the annual audit of the Family Practice Residency Programs conducted by the Texas Higher Education Coordinating Board.

Baylor College of Medicine

Dean of Medical Education’s Response

Thank you for providing a draft copy of your audit report on the Third Year Clerkship for our review. We appreciate your invitation to offer comments on information contained in the report draft.

The report describes one option to enhance the audit process by combining the Third Year Clerkship audit with the annual audit of the Family Practice Residency Program. Baylor College of Medicine engages an independent public accounting firm to perform the annual audit of its Family Practice Residency Program. We estimate that combining an audit of the Third Year Clerkship could increase Baylor's audit cost by as much as \$6,000. This increased audit cost seems unnecessary for a program you have concluded has low risk of non-compliance and low materiality.

Baylor College of Medicine has had a third year clerkship for over twenty years. We believe this clerkship enhances undergraduate medical education. Our motivation to continue this experience is based primarily on its academic benefits.

Chairman's Response

While rural Texas needs primary care physicians, and exposing medical students to rural Family Practice may be a way of enticing them to careers in rural family practice, the logistics of a mandated rural/underserved elective or required rotation would be challenging. Furthermore, requiring such an experience of medical students might "turn them off" from Family Practice instead of encouraging them towards the specialty.

Objectives, Scope, and Methodology

Objectives

The objectives of this audit were to:

- Determine compliance by the eight medical schools with Article III, Section 30 of the General Appropriations Act, 74th Legislature, with regard to the establishment and implementation of a Family Practice Clerkship Program in the third core clinical year of medical school training.
- Broadly determine the effectiveness of the Family Practice Clerkship Program Funding Program.
- Determine the appropriateness of the process used to audit the Clerkship Program.

Scope

The scope of this audit included consideration of:

- The soundness of processes, systems, controls, and data used by each medical school to ensure compliance with the Clerkship Program rider
- The nature, depth, scope, and reports of existing processes to monitor and establish program effectiveness as used at each medical school and/or related entities
- The extent to which the current audit process is appropriately aligned with previous and existing compliance, inherent, and audit risk

Consideration of the means used by medical schools to ensure rider compliance included a review of:

- Each medical school's response to our survey regarding their activities in support of the Clerkship Program
- General ledger and allocation detail for Clerkship Program expenditures
- Source documents and data associated with expenditures, funding, curricula, and examinations

Consideration of the effectiveness of the Clerkship Program included a review of:

- The reasonableness and extent of processes used by medical schools and related entities to gather, report, and use data on the costs and benefits of the Clerkship Program
- The extent to which medical schools and related entities gather, report, and use data on factors which might reasonably influence medical student, graduate, resident, and professional decisions; medical market conditions; and physician supply and demand, particularly as such issues relate to rural and medically underserved areas of Texas
- The nature, scope, participation, coordination, and reliability of data systems used to gather and the above types of data

Consideration of the appropriateness of the current audit process included a review of:

- Current and historical compliance, audit, and inherent risk
- The materiality of expenditures on the Family Practice Clerkship Funding Program
- The efficiency of the audit process and its alignment with established materiality and risk

Methodology

The audit methodology consisted of collecting and analyzing information, performing audit procedures and tests, and evaluating the results of such procedures and tests against established criteria.

Information was collected from the following sources:

- Interviews with medical school faculty, staff, and internal auditors, key stakeholders, representatives of state agencies and medical professional associations, subject matter experts, and other sources
- Review and analysis of documents obtained from medical school faculty, staff, and internal auditors, representatives of state agencies and medical professional associations, subject matter experts, and other sources
- Review and analysis of documentation and other information pertaining to the sources, uses, and accounting of Clerkship Program funds
- Comparison of information provided by the medical schools regarding students, graduates, residents, and physicians with data supplied by the Texas Higher Education Coordinating Board and Texas State Board of Medical Examiners

- Review and analysis of information from prior audit reports, management studies, and other sources

The following criteria were used to evaluate compliance, program effectiveness, and appropriateness of the audit process:

- Statutory requirements
- *State Auditor's Office Project Manual System*
- Other standards and criteria developed from secondary research sources both prior to and during fieldwork. (See Appendix 6.)

Fieldwork was conducted from December 1996 through March 1997. The audit was conducted in accordance with generally accepted government auditing standards and program evaluation (Red Book) standards.

The audit work was performed by the following members of the State Auditor's Office staff:

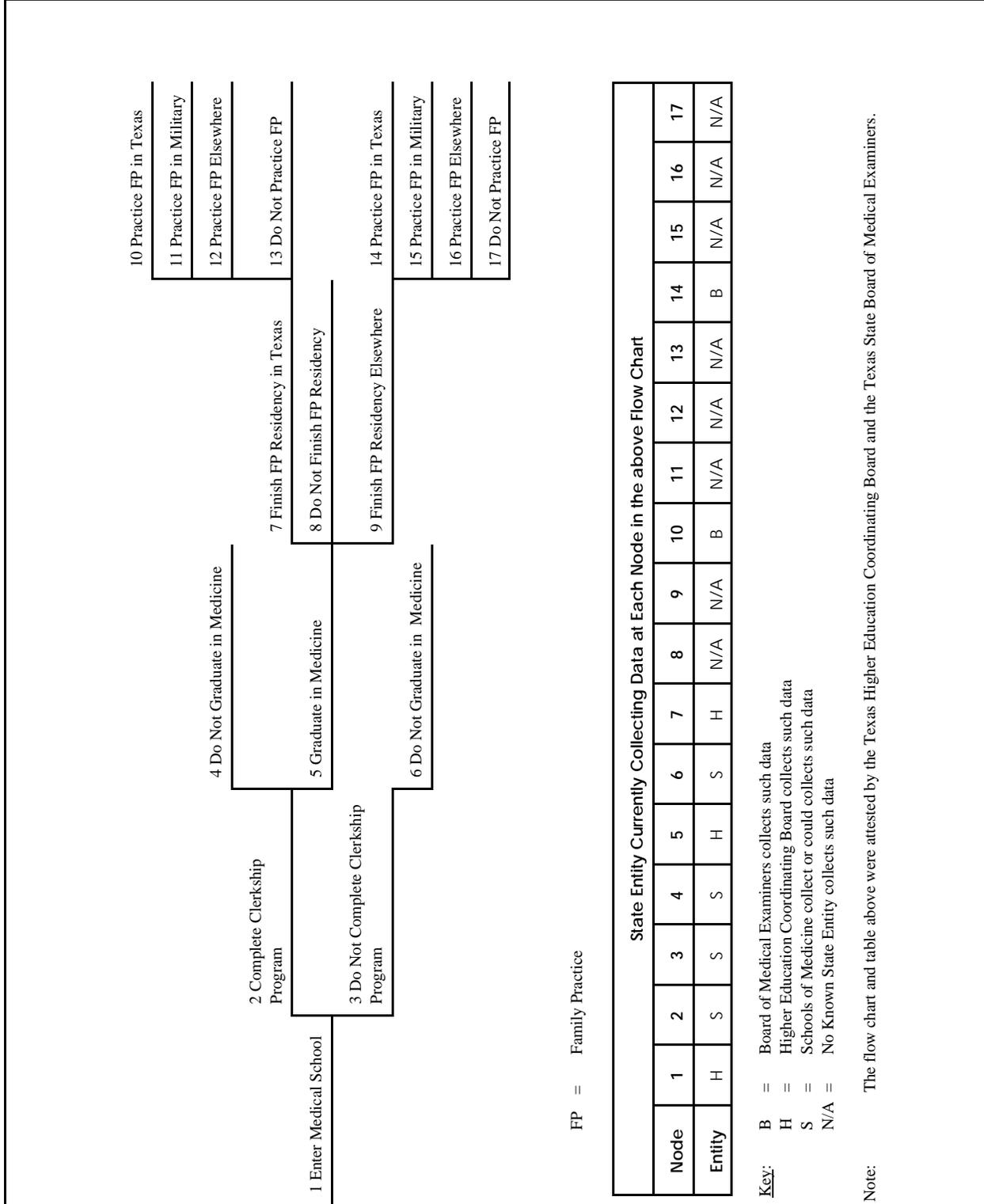
- Bruce E. Truitt, MPAff (Project Manager)
- Abayomi A. Owolabi, MBA, MBA HCM
- Tom E. Valentine (Audit Manager)
- Deborah L. Kerr, Ph.D. (Audit Director)

Text of Article III, Section 30 of the General Appropriations Act, 74th Legislature

Each medical school or college shall expend the following amounts for the purpose of providing a clerkship in family practice during the third core clinical year pursuant to V.T.C.A., Education Code Section 51.918 (d)(1). Funding for these clerkships may include appropriated funds, institutional funds or restricted grant funds. These amounts may not be used to supplant allocations made for other purposes to family practice departments and affiliated family practice residency programs. The required third year family practice clerkship must have a set curriculum and the student must take an exam during the clerkship. The compliance of each medical school or college with the provisions of this rider shall be reviewed annually by the state auditor in conjunction with the Family Practice Advisory Committee of the Texas Higher Education Coordinating Board. The state auditor shall report the findings of the review to the Legislature.

	<u>FY 1994</u>	<u>FY 1995</u>
The University of Texas Southwestern Medical Center at Dallas School of Medicine	\$764,000	\$764,000
The University of Texas Medical Branch at Galveston School of Medicine	\$563,624	\$563,624
The University of Texas Health Science Center at Houston School of Medicine	\$705,584	\$705,584
The University of Texas Health Science Center at San Antonio School of Medicine	\$680,360	\$680,360
Texas A&M University Health Science Center	\$192,400	\$192,400
University of North Texas Health Science Center	\$337,620	\$337,620
Texas Tech University Health Sciences Center School of Medicine	\$286,302	\$286,302
Baylor College of Medicine	\$133,000	\$133,000

Flow Chart From Student Entry Into Medical School Through Medical Practice in Family Practice



Questionnaire From 1990 Statewide Study of Factors Influencing Family Practitioners' Decisions

The following survey was accompanied by a cover letter, the text of which appears below:

Dear Physician:

What factors motivated you to practice medicine in a particular geographic area? Did you consider practicing in a rural area? A medically underserved area? The Texas Higher Education Coordinating Board would like to know what incentives have influenced your practice location decision(s) since completing your residency training.

The Coordinating Board will use your responses to the enclosed questionnaire to develop incentive medical education programs that will help encourage physicians to locate in medically underserved areas of Texas. This information will also be used to write a report for the Lyndon B. Johnson School of Public Affairs at the University of Texas at Austin.

Enclosed you will find a questionnaire on factors influencing your choice of practice location. I know your time is valuable, and I have attempted to make the questionnaire as brief as possible. The questionnaire should only take you an average of seven minutes to complete. Please complete the questionnaire and return it by November 25, 1990. Your reply will be greatly appreciated.

ORIGINAL PRACTICE LOCATION

Please give the following information about the original community in which you established your medical practice.

19. Town/city and state of original practice location _____

20. Year you established practice in this location _____

21. Type of community when practice established (please check one)

urban center (>500,000) city (100,000-500,000) suburban community

small city (25,000-99,999) rural area (<25,000)

22. When did you decide on this practice location?

Before medical school

During medical school

During internship

During residency

During military service

Other (Please specify _____)

23. (A) Please indicate which of the following factors affected your choice of original practice location (1 = very important, 2 = important, 3 = not important).

income potential 1 2 3

climate or geographic features of area 1 2 3

similarity of area to hometown community 1 2 3

state or federal loan repayment programs or other
incentive programs 1 2 3

influence of and employment opportunities for spouse 1 2 3

influence of family or friends 1 2 3

high medical need in area 1 2 3

medical school experience in area 1 2 3

residency experience in area 1 2 3

advice of other physician 1 2 3

organized efforts of community to recruit physicians 1 2 3

opportunities for social life and recreational activities 1 2 3

economic conditions of community	1 2 3
preference for urban living	1 2 3
preference for rural living	1 2 3
availability of clinical facilities and personnel	1 2 3
availability of hospital in area	1 2 3
availability of continuing education activities	1 2 3
opportunity to join desirable partnership or group practice	1 2 3
opportunity to start a solo practice	1 2 3
good school system	1 2 3
military obligation	1 2 3
change in malpractice liability premiums	1 2 3
other (please list) _____	

(B) Of the factors listed above, please list the five most influential in rank order. (If an important factor is not listed, please list it)

1. _____
2. _____
3. _____
4. _____
5. _____

24. Was there a hospital in the community? Yes No
25. Did you have staff privileges at this hospital? Yes No
26. Are you still practicing in your original community? Yes No
27. If answer to (26) is affirmative, go to question (38). If answer to (26) is no, please go to question (28).

CURRENT PRACTICE LOCATION

28. How many times have you moved your practice to a different community?
- _____

29. If you have moved from the first community you chose to practice in, please provide the following information:

Practice Location (City, State)

of years

30. How many years do you anticipate practicing in your current location?

31. Town/city and state of current practice location

32. County _____

33. Year you established practice in this location _____

34. Type of community (please check one)

urban center (>500,000) city (100,000 - 500,000) suburban community

small city (25,000-99,999) rural area (<25,000)

35. What is the most important reason you moved to your current practice location?

36. Is there a hospital in the community? Yes No

37. Did you have staff privileges at this hospital? Yes No

38. If you have any comments about programs that would encourage more physicians to locate in medically underserved areas of Texas, please write them below.

THANK YOU FOR YOUR HELP
PLEASE RETURN IN ADDRESSED STAMPED ENVELOPE BY FEBRUARY 4, 1991

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