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Management Practices In Family Practice Residency Programs

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MANAGEMENT PRACTICES
IN
FAMILY PRACTICE RESIDENCY PROGRAMS

by

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An Independent Study

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APPROVAL

This independent study submitted by Carol L. Schwan in partial fulfillment of the requirements for the Degree of Master of Business Administration from the University of North Dakota is hereby approved by the Faculty Advisor under whom the work has been done. This independent study meets the standards for appearance and conforms to the style and format requirements of the Graduate School of the University of North Dakota.

Faculty Advisor

PERMISSION

Title: Fee Setting in Family Practice Residency Programs

Department: School of Business and Public Administration

Degree: Master of Business Administration

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Signature: Carol L. Schwan

Date: May 1, 1989

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CHAPTER I

INTRODUCTION

Statement of the Research Topic

Each industry has its own particular set of competitive characteristics and "rules of the game." Residency training programs for physicians serve not only as "educational programs" but also as "medical providers." When government intervention in the delivery of health care is added to the mix, the dilemma of setting prices is almost overwhelming.

Straight-forward fee setting information is not readily available, and reference materials vary widely in relevancy and usefulness. When setting fees, a "seat-of-the-pants" approach is thus sometimes taken and critical factors affecting financial stability may be overlooked. Once set, fees may not be reviewed and updated on a timely basis because the process is so ambiguous and time-consuming. Additionally, because patient revenue is often supplemented with other kinds of financial support, less than optimal management attention may be given to formulating and controlling residency program fee schedules.

Objectives of the Study

The purpose of this study was to find possible answers to the following questions:

1. When are fee schedules revised?
2. What causes managers to evaluate fee schedules?
3. What considerations and reference materials are utilized in the process of reviewing fees?
4. What recommendations based on the findings of the study can be made to improve the methods of establishing and controlling fee schedules?

Hypotheses

The general prediction for this study was that the decision to evaluate fees is randomly determined, and that an analytical framework for price decisions and control is virtually nonexistent. It was hypothesized that within Family Practice Residency training programs:

1. Null hypothesis: The decision to evaluate fee schedules is not randomly determined.

   Alternative hypothesis: The decision to evaluate fee schedules is randomly determined.

2. Null hypothesis: A usable formula or analytical framework for fee schedule pricing and control is virtually non-existent.

   Alternative hypothesis: A usable formula or analytical framework for fee schedule pricing and control does exist.

Methodology

Current literature on medical practice fee setting was reviewed. In addition, a questionnaire was developed to survey all listings in the 1988 Directory of Family Practice Residency Programs. Questions involved the timing of fee reviews, motivating factors for fee reviews, and references utilized in the review process. The analysis used a null hypothesis of a uniform distribution of responses. Included were questions about the general level of fees as well as sources of program support. (See Appendix D)

Limitations

As with any similar analysis, the literature review was limited to available relevant data. A questionnaire was mailed to the entire population of 379 Family Practice Residencies, but fifteen military programs which charge no fees were later eliminated from the study. Of the remaining 364 programs, responses were received from 146 or 40.1 percent. While no sample is a perfect replication of its population, for purposes of this study the assumption has been made that this sample is representative of the population from which it was drawn.

CHAPTER II

BACKGROUND

Pricing Theory

In normal business situations, the process of price setting involves six major steps: clarify the pricing objective, determine demand, estimate costs, analyze the market, select a pricing method, and set the price.

The pricing objective is primarily based on what is to be accomplished with the product. Within a residency program, the major "product" of training the resident physician is achieved while providing medical services as a component of that training effort. Within these confines, "survival" might also be considered an additional objective, since various factors such as decreased supplemental funding, excess capacity, or intense competition may directly affect the very existence of a residency program.

In most businesses, price and demand are inversely related. In residency situations, an accurate estimate of medical services and of patient needs is essential prior to pricing decisions. Management must evaluate the manner in which users of medical services respond

to pricing. Strong physician-patient relationships may impact the response, and patient inexperience or inability may make it difficult for them to compare prices. People may actually be less concerned with, or even unaware of, price as a means of comparison. Personal recommendations, office location, and hospital affiliation may take precedence over fees in the selection of a medical service provider.

While demand sets the ceiling on what can be charged, costs set the floor in the usual business situation. Residency costs, however, include not only medical but also educational expenses. Since these frequently overlap, it is difficult to fairly allocate patient care costs for pricing, and the maximum amount of available patient revenues would be exceeded if all residency program expenses were included in the cost basis. Other sources of program support might include state funding, grants, foundations, and community support which all vary widely from one fiscal period to another, and thus are not a dependable source of funds. Pricing efforts therefore cannot be based on the differences between costs and demand.

Market assumptions must be made about reactions other medical care providers may have,to given price levels -- their prices may be different at each level a residency uses, or they may remain constant regardless of the price. Pricing may be additionally complic-

ated within residency programs which depend on competing community physicians who teach. Pricing residency program services too low may not only cause the teaching community physician to curtail resident teaching efforts, but it may also cause direct financial losses to his or her practice if the low residency fees result in a decline in area Medicare prevailing figures or Blue Shield customary rates.[1]

Residency pricing methods thus eliminate "cost plus" and "target profit" choices since patient care cost elements cannot be pinpointed, and there is no possibility of a profit if all costs are considered. The most valid pricing method is, therefore, the "going rate" wherein fees are based on prices used by competing medical providers within the area. This method reflects the collective wisdom of the industry as to prices which yield a fair return, and it preserves the health care industry's harmony. Effort is given then to changing fees when competitors do so, preserving the price difference (over or under) at each level. Adjustments to fees must be made independently within the residency, however, to avoid the appearance of price fixing, which is illegal.

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[1] To determine the "prevailing" rate, Medicare reviews all fees charged for a service by all physicians in a specialty during the prior year within the area, and selects the rate that is seventy-five percent between highest and lowest. Blue Cross and Blue Shield has a similar rate which they call the "customary."

Selecting the final fee involves the psychology of pricing as well as basic knowledge of economics, finance, accounting, marketing, and law. Prices must be consistent with program objectives, yet fall within financial needs--and still meet changing third party and government mandated requirements.[2]

Establishment and Control of Medical Fees

Fees are probably the most closely scrutinized element of a medical practice, with the government, insurance companies, and patients closely watching them.[3]

Most medical services and procedures are assigned standardized five-digit code numbers which are used to communicate with government agencies and third-party payers when medical services have been provided. The physician reimbursement is then based on these procedure codes. Initially developed by the American Medical Association in 1966, the Current Procedural Terminology book (CPT) lists assigned codes and corresponding procedures, and is updated annually to reflect changes in services and medical technology.

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[2] Patients obtain services from medical providers, but the costs of these services are often paid by a third party, such as an insurance agency or another organization like Medicare or Medicaid.

[3] Constantine A. Solomus, "Guidelines for Setting the Proper Fees," Physician's Management, September 1985, p 121

To further complicate procedure coding, the Health Care Financing Administration (HCFA) developed an even more specific coding system called Common Procedure Coding System (HCPCS). These codes are required when filing claims with Medicare, Medicaid, and other medical coverage programs involving government funds.

HCPCS is comprised of three levels of codes, the first level being the CPT codes previously described. The second level are HCFA-designated, and are mostly nationwide non-physician services such as durable equipment and supplies. The third level contains codes assigned by the individual local Medicare carrier, and are not found in the first two levels. The latter two levels are alpha-numeric, while the CPT codes in level one are numeric.

The medical problem, complaint, diagnosis, or reason for medical attention is also classified into a numerical code in the ICD-9-CM book (International Classification of Disease, Ninth Revision Clinical Modification). These codes, generally referred to as diagnosis codes, provide statistical and clinical data, as well as reimbursement guidelines when used in conjunction with procedure codes. Medicare and many third parties will not process a claim unless it gives both the ICD-9-CM and the CPT codes. Payment

denial and/or down-coding by the third party payor may occur when the two codes appear dissimilar.[4]

When developing a fee schedule, many providers utilize a relative value scale, which is a cardinal ordering of physician services, normally based on CPT codes. A unit value is assigned to each service indicating its worth relative to other services in the scale. Multiplying the relative values by a monetary conversion factor produces the fee schedule. If the provider later chooses to increase fees, the conversion factor is easily changed and the entire schedule is proportionately adjusted.

Fees vary widely from one geographic location to another. When initially establishing residency relative values and fees, a survey may be made to determine the general level of charges within the community. Using a few specific CPT codes, those providing medical services within the area may be contacted to ascertain the general level of prices. Following an analysis, a monetary conversion factor may be calculated so that the level of other fees may be estimated.

Setting fees at a minimal level to attract more patients implies that cost is the only factor patients

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[4] Thomas A. Andrus and A. Thomas Rank, "Getting Reimbursed Means Playing by the Numbers," Practice Economics, October 1987, p. 12.

consider. Pricing services too low not only limits the opportunity for a competitive fee schedule, but it may also have a reverse effect, since the perception of the patient may be that the fee is lower because the quality of the service is less. Fees that are too high may also create problems, since patients soon detect over-priced services, and established physicians may be resentful of the higher fees and avoid patient referrals to that provider.

Any decision which affects the ratio of value received versus value provided is considered to be a pricing decision--and extensions of credit, professional courtesy, and cash and/or quantity discounts affect this ratio. Special attention must be given to situations which may ultimately affect fee profiles, such as cash discounts or group rates. Insurance companies maintain control over the amounts they pay medical providers by using "profiles" which are created from information relating to the doctor's charging patterns, the specialty involved, the geographic location, and other pertinent factors.

A general review of the fee schedule might occur annually during times of single-digit inflation, and twice a year during double-digit inflation. While a review does not require changes to be made, this is a logical time for adjustments. Office staff find it less difficult to make changes once or twice a year, and

third party payers prefer infrequent revisions. Reviews should be planned near the times that Medicare and third party payers update reimbursement schedules, so that revisions occur early in the new period. Fee schedule changes thus made at an early date will be more promptly reflected in later year updates by these major agencies.

Significant increases in expenses such as the malpractice insurance or rent should be anticipated, and fees adjusted to spread the cost proportionately over the largest number of patients. While some consultants suggest that each fee be examined separately, others suggest that this is too complicated unless fees are out of balance at the onset. When faced with an unanticipated cost increase which greatly affects a specific service, the adjustment is best done immediately if the cost is significant.

Volume of procedures and services is a key factor when increasing fees. A small increase in a frequent service will generate more revenue than a large increase in a seldom-done but high-priced procedure. Fees charged by competing medical providers must also be considered at the time of fee adjustments.

Effort should be made to identify residency patients and evaluate those factors which affect them. If the majority of the patient population consists of poor patients covered by medical assistance, raising

fees may have little effect since Medicaid reimbursements are locked into a limited schedule and providers are required to accept that reimbursement as payment in full. If there are a great many elderly patients and the residency "participates" in accepting Medicare assignment, payments are restricted to the limited rate which Medicare considers "reasonable and customary."[5] Increases in fees will therefore not garner additional revenue until the Medicare reimbursement schedule is updated, generally many months later. Medicare patients pay an annual deductible and twenty-percent co-insurance on all services, with added financial responsibility possible if the provider does not accept assignment.

Another consideration is whether the patient or an insurance is paying for the medical services. With a largely uninsured or self-pay patient base, increases in fees may inflate service charges but generate little added revenue. Since there may be limited opportunity to secure additional revenue from current patients, a change in patient base may be indicated.

Maintaining current fees for established patients while increasing fees for new patients is not only unfair but also unwise in a competitive market.

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[5] By "participating" the provider agrees to accept what Medicare decides is due as payment in full except for the portion which the patient is required to pay.

Patients accept modest fee increases, realizing that costs of other goods and services also continue to rise. Announcing fee increases to patients is neither advisable nor necessary.

These basic guidelines relative to setting and controlling fees must additionally be weighed against constantly changing government regulations and requirements of third party payers.

Impact of Government and Third Party Payers

By 1985, third party reimbursements accounted for an average of seventy percent of physician's practice income. Providers of medical services must therefore be knowledgeable not only in the setting of appropriate fees to meet specific guidelines of these organizations but also in the claims processes.[6] The era in which insurance companies passively paid all claims for care provided has ended, and price negotiations and utilization controls are being put in place.

The federal government is, by far, the largest third-party payer, picking up approximately forty percent of the total tab. Private insurers pick up twenty-five to twenty-eight percent, and the states

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[6] Paul C. Gerber, "How to Get Maximum Third-Party Reimbursement," Physician's Management, April 1986, p. 55

(through Medicaid) and individual consumers, pay the rest. Because insurance costs have continued to increase and employer-paid coverage has declined, the proportion of uninsured patients will most likely increase.[7] The consumer will then be more vulnerable--and it will be even more important to assure that fees remain within the limits of what patients are willing and able to pay. For those employees who are covered by employers' plans, out-of-pocket expenses are increasing, with stiff deductibles and co-insurance requirements.

Third party payers and government agencies are becoming increasingly more demanding for processing reimbursement information, focusing on accurate reporting of exactly what was done and the reason for each service. Two of the major organizations impacting the economics of health care providers are Medicare and Blue Shield.

Medicare

Medicare was started in 1966 to cover the elderly and disabled, with Part A covering institutional costs and Part B covering physician fees.

Medicare uses a confusing method of calculating physician reimbursements. The physician provider

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[7] Paul C. Gerber, "Third-Party Payers: Will They 'Own' You in 5 Years?", Physician's Management, January 1986, p. 228

establishes a "customary" charge, which is the amount normally billed for a procedure. If a provider's charges vary, the "customary" is the median or mid-point figure.

The Medicare carrier calculates the "prevailing" charge by looking at all the fees charged for a service by all physicians in a specialty during the prior year within the locality, and selecting the rate that is seventy-five percent between the highest and lowest. To assure that this area "prevailing" can only reflect the amount of inflation, Medicare may limit any increases using an economic index adjustment factor called the Medicare Economic Index, or MEI.

The lower of the "customary" and the "prevailing" charge is the provider's fee profile. Medicare will compare the "customary" and "prevailing" profiles (which are based on services provided more than a year ago) with the actual charge filed on the current claim, and pays eighty percent of the amount which is lowest, minus any of the seventy-five dollar deductible which the patient owes for the year. If assignment is being accepted, the provider is paid directly by Medicare and then bills the patient for the balance of the deductible and for the twenty percent co-insurance. However, if the provider has chosen not to accept assignment, the patient receives the Medicare payment and the provider bills the patient for the total amount due (but not

exceeding the provider's specific "maximum allowable actual charge" or MAAC.)

Providers who "participate" have agreed to accept assignment on all Medicare patient claims, while "non-participating" providers can accept or reject assignment on a case-by-case basis. Non-participating providers can bill patients for more than the Medicare-approved amount, but only up to the MAAC, which is determined individually for each provider, based on the physician's charges from the early 1980's.

Non-participating providers generally maintain two separate fee schedules--one for Medicare beneficiaries and another for non-Medicare patients. While Medicare patients may be charged less than other patients, the reverse is illegal. Additionally, there is nothing to prevent providers from raising fees to non-Medicare patients.

When establishing fee schedules for nonparticipating providers, special effort must be made to obtain MAAC information from the Medicare carrier because billings in excess of this amount are punishable by law. No special attention is required if the provider is participating, since Medicare will pay only the profile or the actual charge, no matter what amount is billed.

During fee schedule reviews, Medicare "prevailing" fees should be compared. If the provider's customary

fee is below the "prevailing", an increase should be considered. If the provider is aware that charges are below the "prevailing", but does not desire to raise fees, there is no benefit from not participating. If fees are higher than the "prevailing", non-participation will allow the provider to charge more.

There is little incentive to participate if Medicare patients are less than twenty-five percent of the total practice. If Medicare patients exceed that percentage and constitute a collections problem, consideration should be given to accepting assignment so that reimbursement will be received directly from Medicare on at least a portion of the services given.

The "Blues"

Blue Shield has been marketed as "the doctor's plan for doctors" who agree to accept allowances directly from the plan as payment for subscribers, with the patient only paying the co-insurances and deductibles dictated in the policy purchased. Historically, few services that did not involve hospitalization were paid, and routine examinations or other office visits were rarely covered.

Harry T. Paxton, "Medicare Made Relatively Simple," Medical Economics, June 6, 1988, p. 172.

Providers who participate in Blue Cross/Blue Shield are paid the lower of the "usual" and "customary" or reasonable fee for services rendered. "Usual" (which is analogous to the Medicare "customary" indicates the fee normally charged for a service. "Customary" (similar to the Medicare "prevailing") is a range of fees based on average fees charged by certain groups of physicians and specialties in different geographic areas. "Reasonable" is the average fee, which is determined from profile data, again received from provider fees in a given area and specialty. [9]

Since the "Blues" are often one of the major third-party payers, their reimbursement mechanisms and schedules should be closely compared at the time of each review of fee schedules.

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9 Constantine A. Solomus, "Guidelines for Setting the Proper Fees," Physician's Management, September 1985, p. 127.

CHAPTER III

METHODOLOGY

Population

The population chosen for inclusion in this study consisted of all the Family Practice Residency Programs currently functioning within the United States. These are listed in the 1988 Directory of Family Practice Residency Programs, which provides a two-page detailed description of each program. (See sample in Appendix B)

Approval

A completed Project Review Card was submitted to the Institutional Review Board of the University of North Dakota to secure approval prior to conducting the survey. (See Appendix A)

Data Collection Methods

A mail questionnaire was utilized to collect data from the population. This survey and cover letter were mailed on November 14, 1988. (See Appendices C and D)

Additional supporting information was collected through a review of current literature pertinent to

pricing in general, and to medical provider fee setting in particular.

Supporting Information

When the mailing label was affixed to the envelope, each survey was assigned a code which would later identify the respondent. The code used for this purpose was the number of the page on which each residency was shown in the 1988 Directory of Family Practice Residency Programs. The main reason to code the survey to the directory was to tie the questionnaire data to the published residency program information. Each questionnaire returned was identified to the corresponding directory page. (See Appendix B).

The Respondents

Of the total 379 residency programs, fifteen military programs which charge no fees were eliminated. Of the remaining 364 to which questionnaires were sent, 146 or 40.1 percent returned a usable instrument.

Instrument

The mail survey utilized for the study contained eight questions, with numbers four and five of particular interest. (See survey in Appendix D) These two sections inquired about the events which cause the manager to review the fee schedule, and the reference

materials to which the manager refers in the fee setting process. The information was obtained by use of a Likert-type scale, with coding values as shown below:

ALWAYS	OFTEN	SOMETIMES	SELDOM	NEVER
(1)	(2)	(3)	(4)	(5)

The balance of the survey questions were included to provide additional support to the basic questions. An open-ended final question was utilized to elicit additional information from respondents on their opinions and perceptions of fee setting and control.

Data Analysis Methods

Although all known members of the population were queried, the partial response necessitated treating the survey as a sample. Appendix E provides details of the statistical background and processes utilized in analyzing the survey, as well as specific values relative to questions four and five.

CHAPTER IV

RESULTS

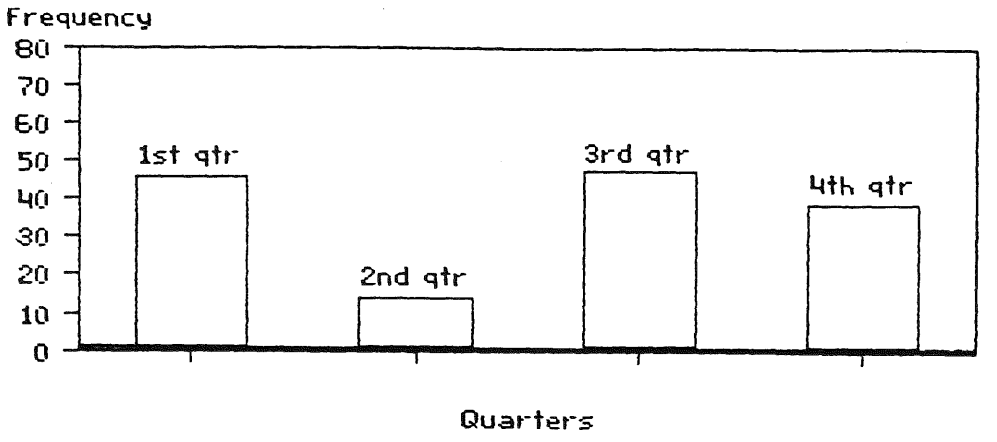
Questions One Through Three

Information from all usable surveys was input to the TWIN spreadsheet. Using "frequency" to reflect the actual number of responses, bar graphs were generated. On questions where no answer was provided, "NA" was designated and graphed.

Questions one, two, and three of the survey concerned actual fee schedule revisions, their frequency, and the relative comparison of residency fees to those used by other medical service providers within each community.

The first question inquired "When was your last fee schedule revision?", with space provided for the respondent to insert the actual month and year. Figure 1 shows those responses according to the quarter of the year in which the last revision was done. Nearly equal responses were submitted for the first and third quarters, with fourth quarter revisions just a few less.

Figure 1: Quarter of last revision



Approximately twenty-two percent of the returned surveys reported that fees had not been revised in the most recent twelve-month period, with the oldest revision date given as 1980.

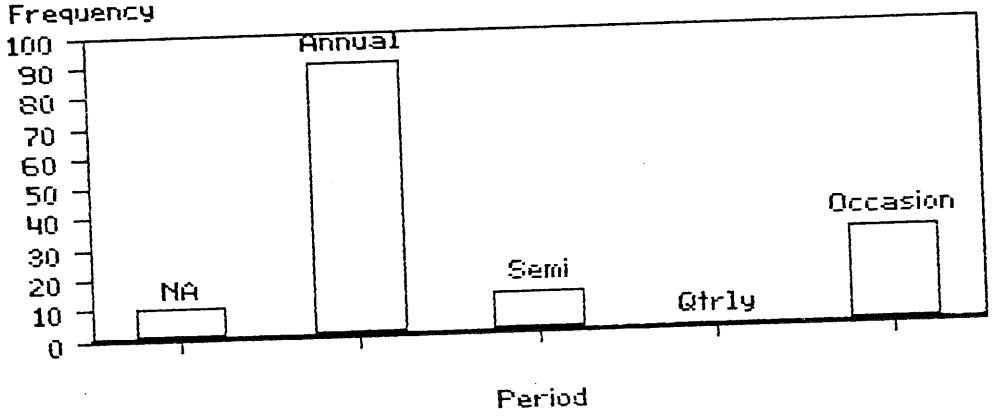
Valid assumptions regarding timing reasons cannot be made from the available data. Consideration appears to be given to implementing revisions at the beginning of either the calendar or fiscal year. Outside factors which likely influence the timing of revisions include updates in the profiles utilized by Medicare, Medicaid, and third parties such as the "Blues". Since many of these updates occur at the start of the calendar year, providers frequently attempt to review their schedules at year-end, or as quickly as possible in the new period so that any changes are promptly reflected in later updates.

Question two asked "Which one best describes how often your fee schedules are revised?" In addition to

specific choices of annual, semi-annual, and quarterly, a choice of "occasionally, as the need is perceived" and "other" were listed. As illustrated in Figure 2, most programs with planned revisions scheduled them on an annual basis.

Twenty two percent, or thirty two of the surveys showed that revisions were done only on an occasional basis. It is observed that the percentage of those doing "occasional" revisions is nearly identical to those with fee schedules which have not been revised in over a year.

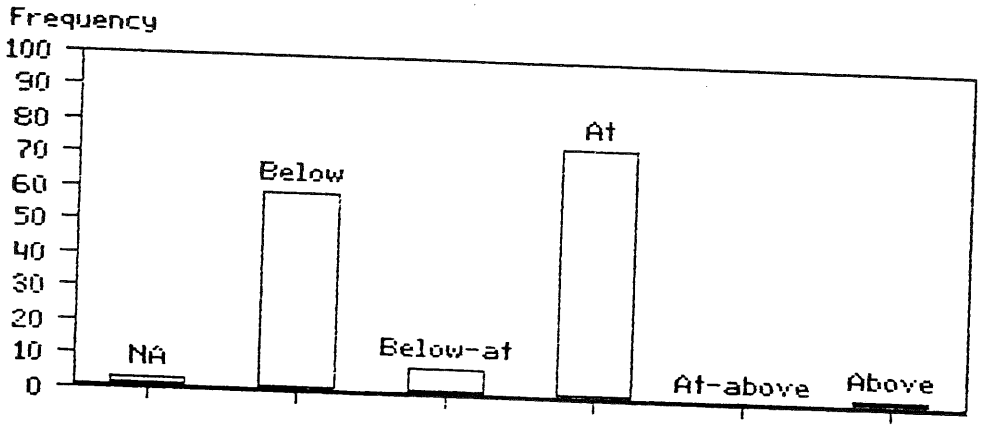
Figure 2: Period of review



The third question asked "Which one best describes how your fees compare within your community?" Choices were given for fee levels below, at, or above the community norm. As shown in Figure 3, most respondents reported their fees to be "at" community levels, with "below" the second most common choice. Several circled two choices, such as "at" and "below". A number of

additional comments were noted to further describe residency fees. For example, while one indicated that office services were below the community norm and procedures were at the norm, another stated exactly the opposite within that program.

Figure 3: Community comparison



Question Four

The fourth question asked "What events cause you to review fee schedules of your residency?" An attempt was made to list common reasons why a review would be done, and the respondent was to select one of the five choices (always, often, sometimes, seldom, never) for each.

In order to assess uniformity of response, an analysis of the standard deviations was carried out. Descriptive significance levels were obtained using a null hypothesis of uniformly distributed responses. These are listed in Appendix E. Only three were

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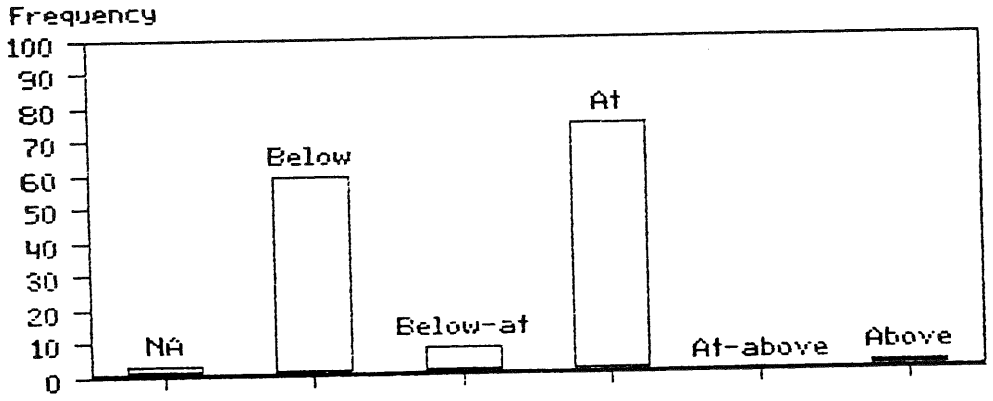

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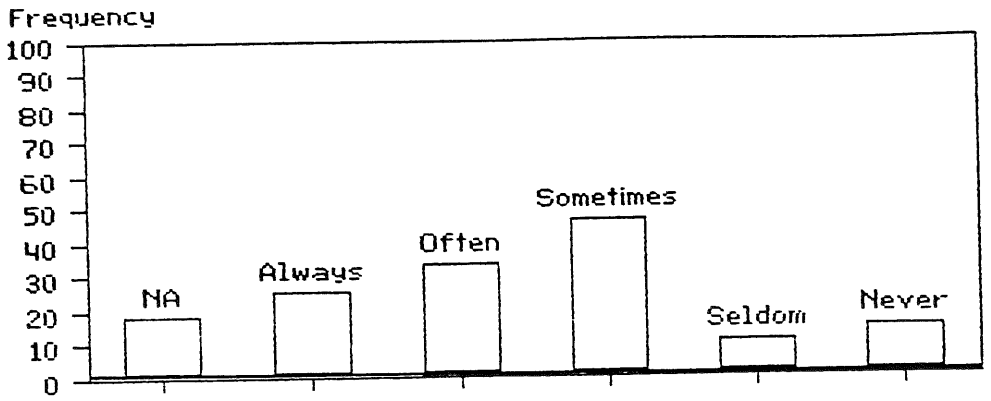
significant at the one percent level: decreased patient count, unfilled resident positions, and "other". Declines in state/federal funding was significant at the five percent level.

Figure 4 is a graphical presentation showing the frequency of fee schedule reviews "when needed to maintain financial integrity." The largest response was in the "sometimes" category, which was checked by forty-six. Approximately ten percent of the returned surveys reported that fees were "never" reviewed when needed to maintain financial integrity!

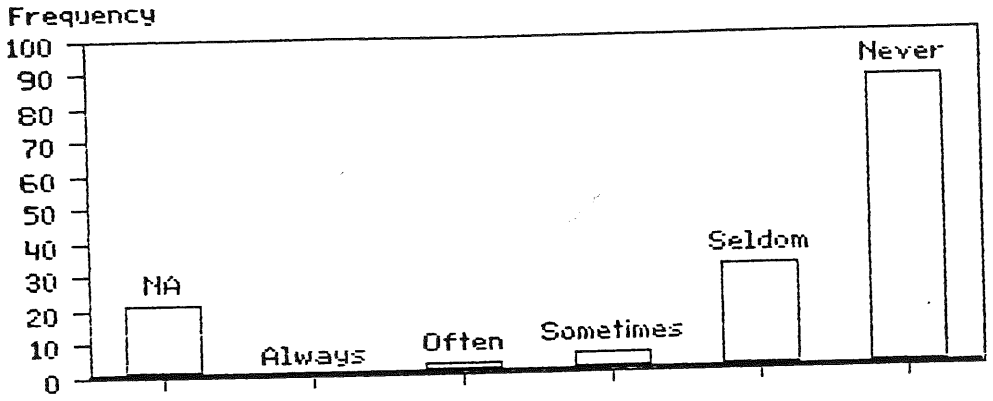
Figure 4: When needed to maintain financial integrity



Reviews are rarely implemented as a result of decreases in the patient count, as shown in Figure 5. This review reason would fall outside the given range for consideration by management even at a significance level of one percent. While twenty-one did not respond,

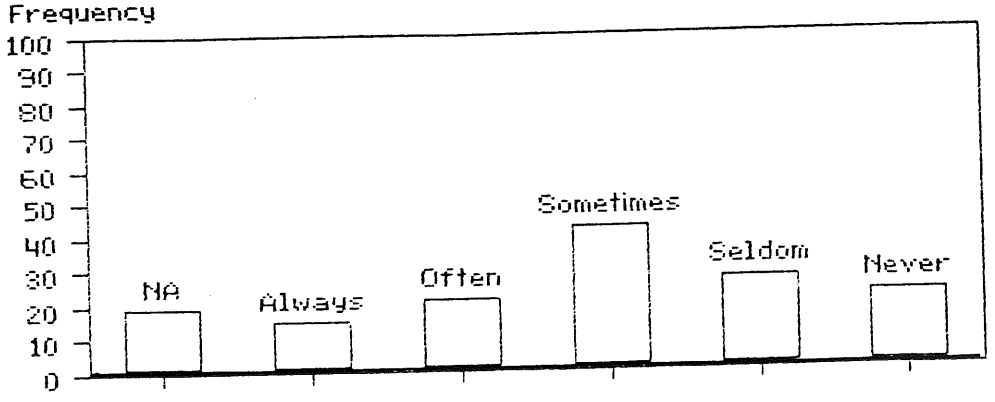
the "seldom" and "never" categories contained nearly all others.

Figure 5: When patient count decreases



There appears to be no consistent approach to fee schedule reviews when Medicare regulations change, as illustrated in Figure 6. Participation status likely impacts the selection of this response category.

Figure 6: When Medicare regulations change



Fee reviews following decreases in state/federal funding would fall outside of the range at a five

percent significance level, giving evidence of some managerial consistency on this question. Figure 7 shows that decreases in these funding sources will not likely trigger fee reviews.

Figure 7: When state/federal funding decreases

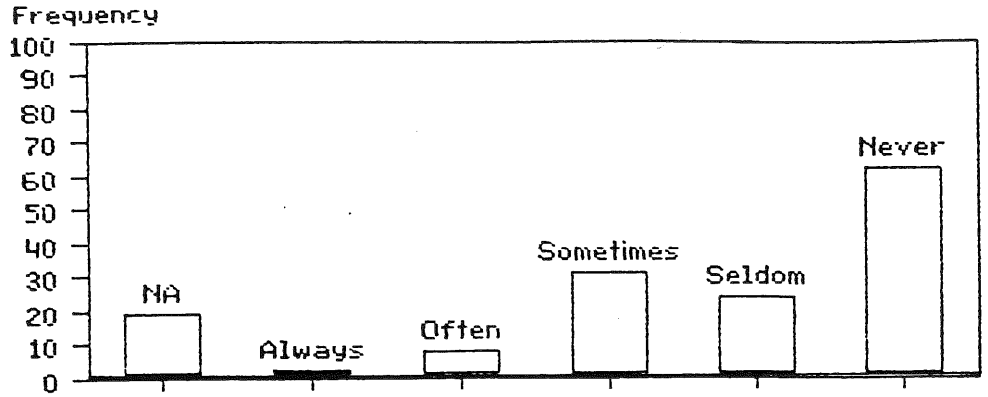
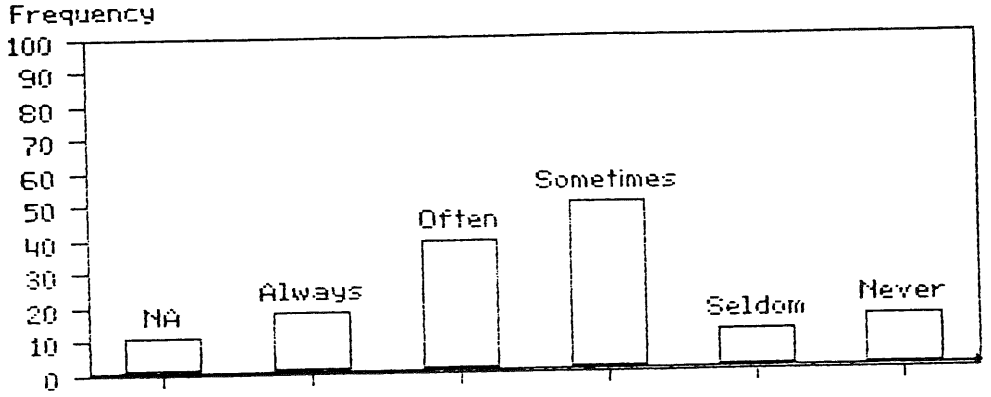


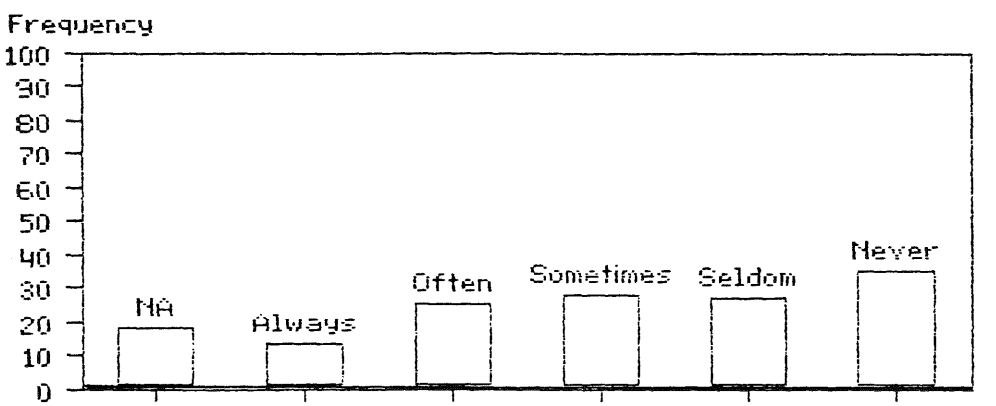
Figure 8 shows skewing in the opposite direction to reflect that fee reviews are likely to occur after increases in operating expense. Slightly more than ten percent of the survey forms reported that operating cost increases "never" trigger such activity.

Figure 8: When operating expense increases



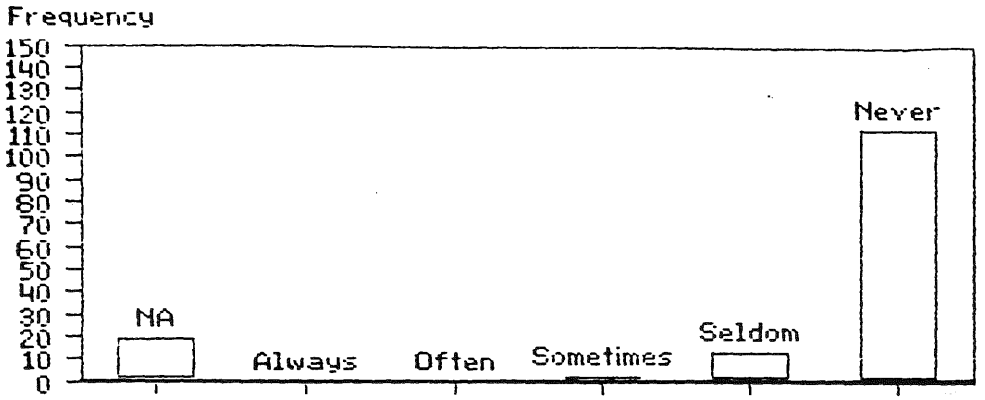
Of the components in question four, perhaps the largest disagreement among respondents is illustrated in Figure 9. Bars on this graph easily show that responses in all categories are very similar, and that there is total inconsistency among respondents regarding the issue of fee schedule reviews following publication of new CPT codes or modifiers.

Figure 9: When new CPT codes/modifiers published



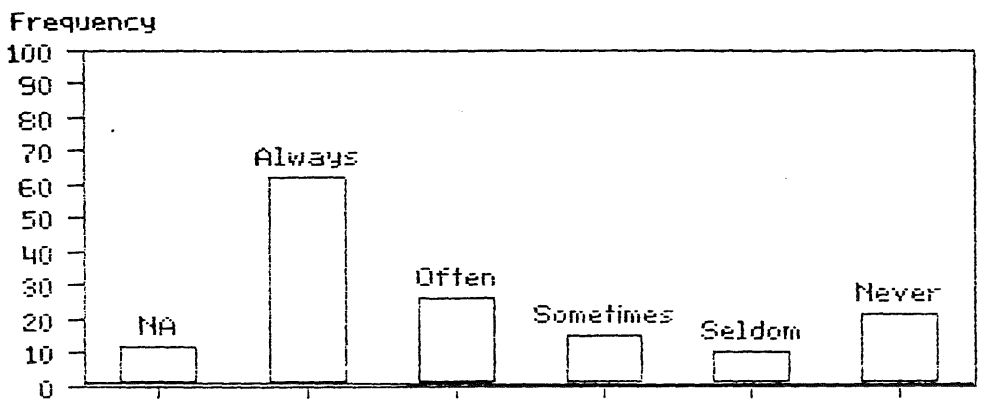
The largest single response to any of the statements in question four was the choice of "never" with respect to fee schedule reviews "when resident positions are unfilled." This agreement was reflected in the statistical analysis which placed a significance level showing only one percent outside the range. Figure 10 illustrates that 112, or approximately three-fourths of those who returned a survey indicated charges are never reviewed if less than a full compliment of residents is available.

Figure 10: When resident positions are unfilled



Most programs reported that fee schedules were usually reviewed when planned on an annual basis, but many responses were also seen in other categories. Twenty-one noted that review activities "never" occur when regular reviews are scheduled! Figure 11 shows the inconsistency of management response within this component.

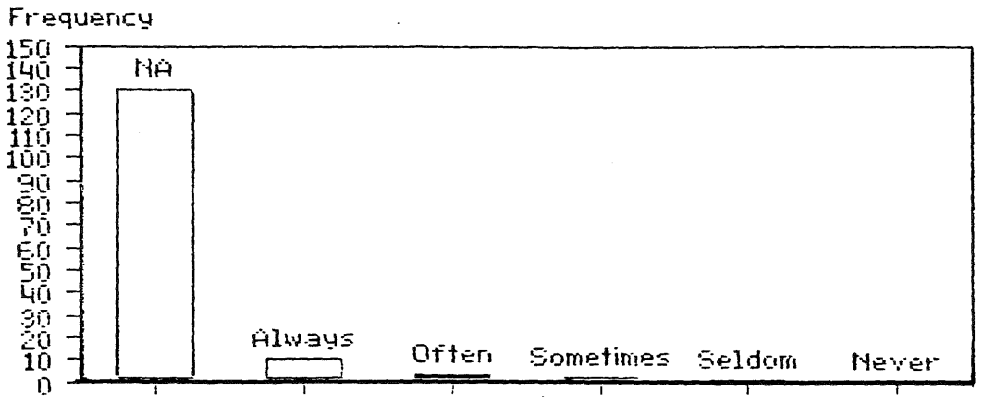
Figure 11: When regular reviews are scheduled



A final category labeled "other" was provided so that respondents would have an opportunity to give any

additional reason why a fee schedule review might occur within a residency program. The "no answer" category predominated as shown in Figure 12, although a few other reasons for review were given by respondents.

Figure 12: When other events occur



Question Five

Sixteen components were given in question five, which stated "Please indicate how often you consider each of the following when setting fees for patient services." The mean and standard deviations were calculated as given in Appendix E. Significance levels of one percent and five percent were utilized, with three falling outside the range at one percent and an additional three at five percent.

For the first two queries, the p-values of the standard deviations imply significance at the five percent level. Figure 13 shows that there appeared to

be some consistency in utilizing similar CPT codes/fees already in use within the residency when setting fees. Figure 14 also illustrates some management agreement that blind consumer surveys within the community are not widely used.

Figure 13: Similar codes/fees already in use

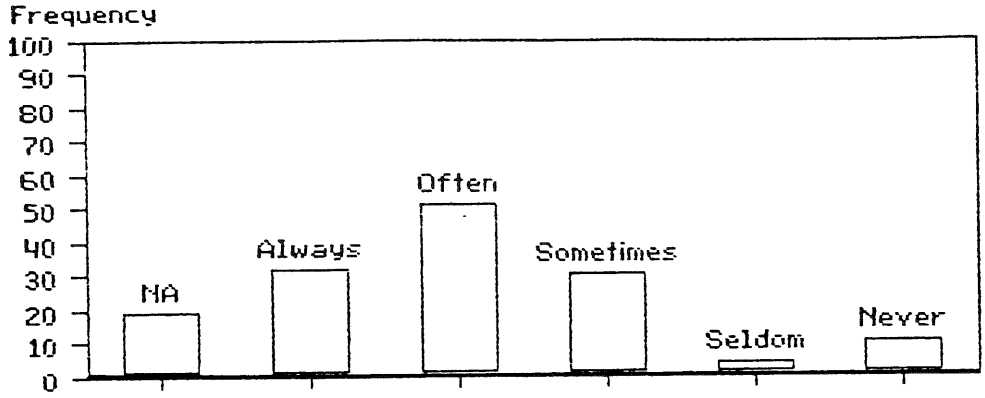
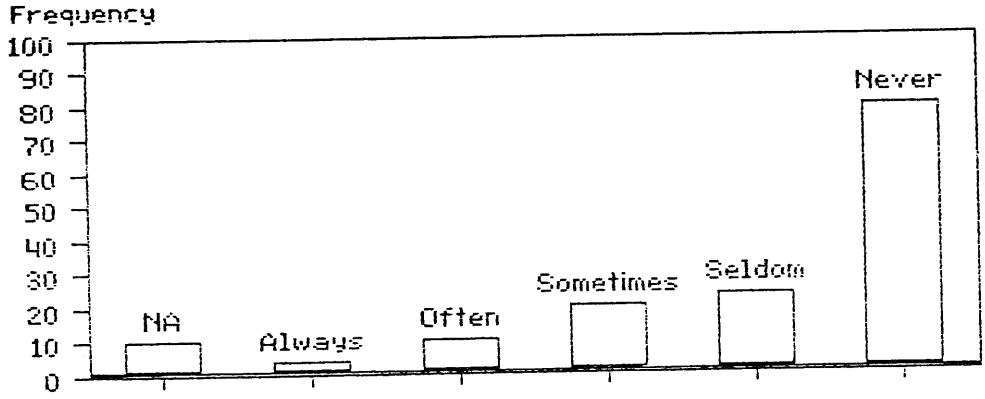


Figure 14: Blind consumer surveys

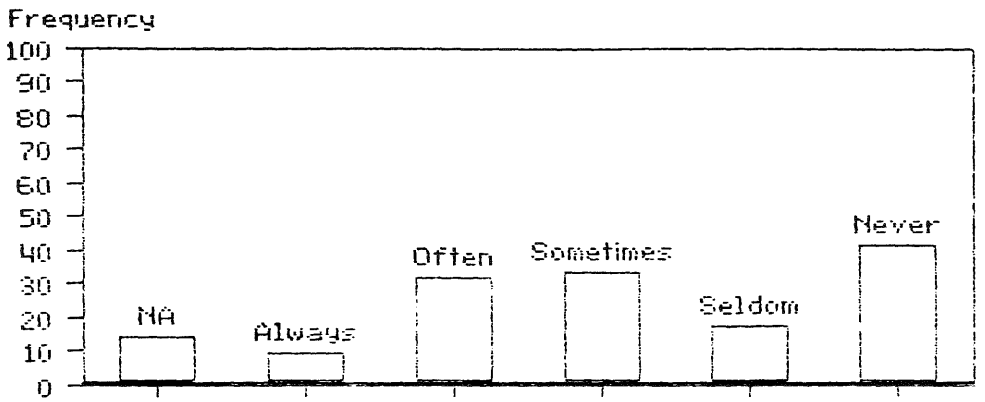


Management consideration of the next five items was extremely inconsistent in the process of fee setting. This is demonstrated on Figures 15 through 19.

None of the available choices (always, often, sometimes, seldom, and never) predominated, as there were similar responses in each category.

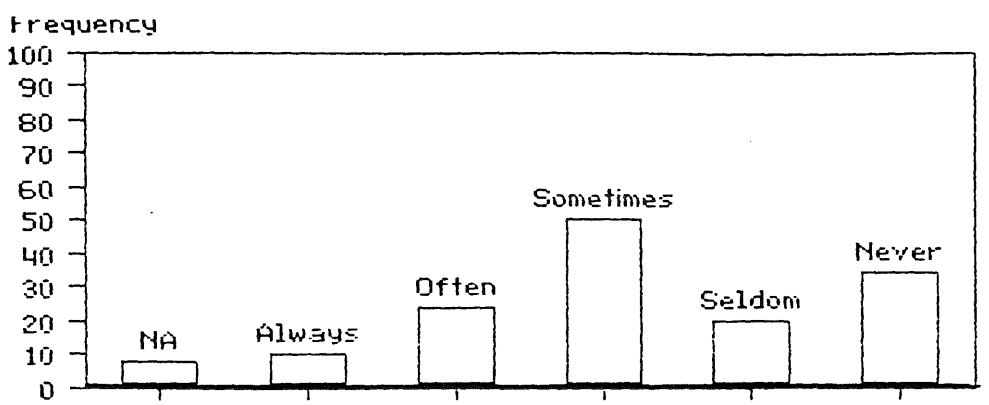
Figure 15 reflects the use of relative value guides when setting fees. Forty-one respondents noted that they never utilize such references.

Figure 15: Relative value guides



As shown in Figure 16, "demands of finance people for revenue increases" appear to be generally ignored by management, with twenty saying they "seldom" consider these demands and thirty-four stating they "never" do.

Figure 16: Demands for revenue increases



Use of the "experience of teaching faculty within the residency" to help set fees varies widely, as shown in Figure 17. In Figure 18, managers noted that a "cash flow deficit" may be considered when setting fees, but there was complete disagreement with respect to how often. About one third reported that this factor would never be a part of their pricing decision.

Figure 17: Experience of teaching faculty

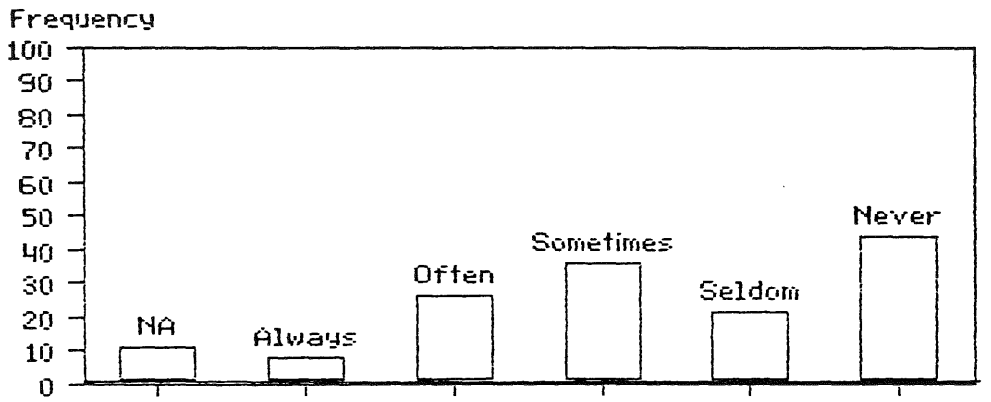
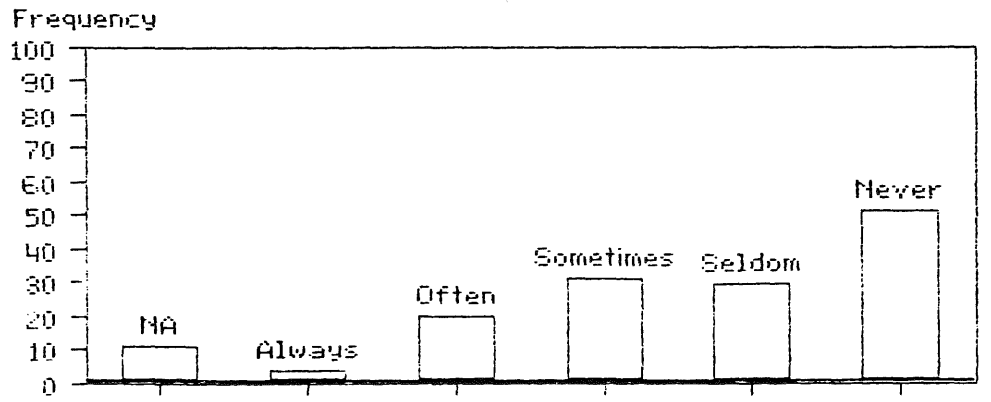
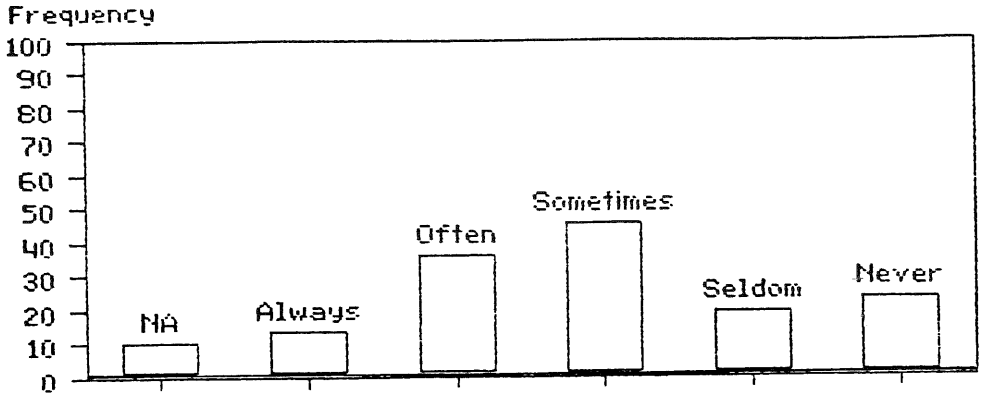


Figure 18: Cash flow deficit



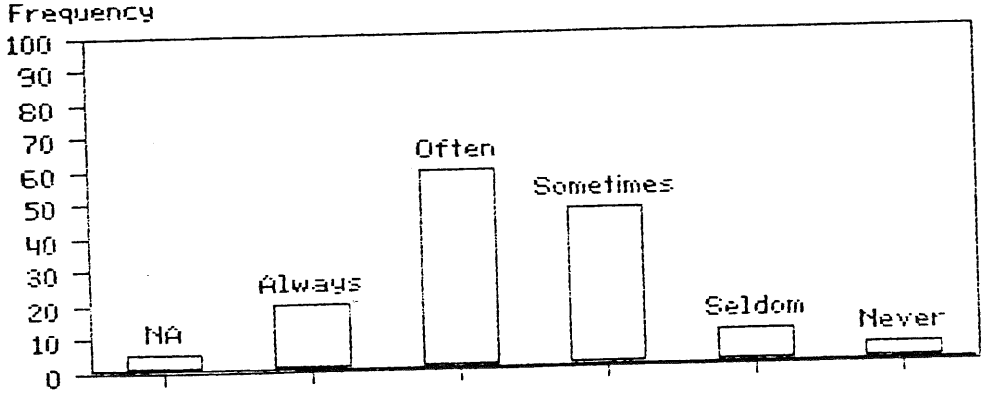
Fee setting often involves use of an "across-the-board percentage increase in fees" as reflected in Figure 19. Responses were given in all categories of the range from "always" to "never", but indications are that this is a widely accepted application.

Figure 19: Across-the-board percentage increase



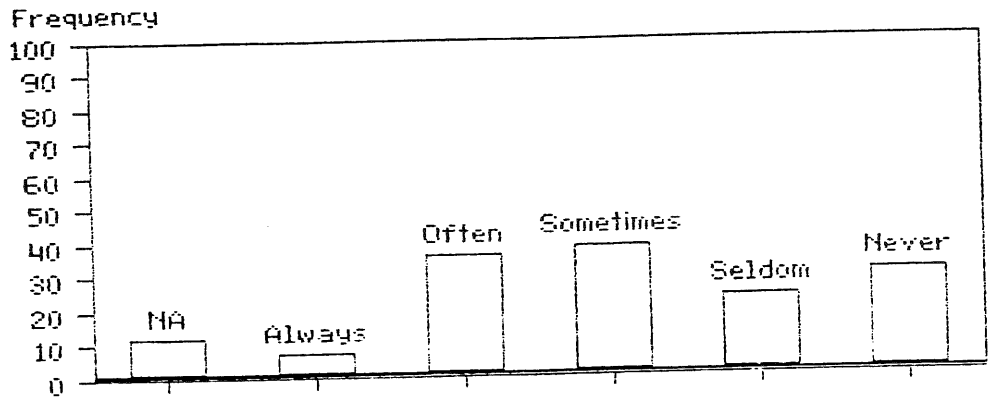
The standard deviation for "fee schedules of other providers" is significant at the one percent level. A review of Figure 20 indicates managers consistently utilize this as a tool for setting fees.

Figure 20: Other provider fees



Blue Cross and Blue Shield rates and schedules are inconsistently referred to by management in setting fees. As presented in Figure 21, user choices include all categories, with none reflecting extremely high or low application.

Figure 21: Blues' rates/schedules



At a significance level of one percent, "schedules provided by Medicare" fall outside of the range and thus appear to be consistently utilized by managers in the process of setting fees. Figure 22 shows that only about one tenth of the respondents stated that they "never" consider this type of Medicare information.

Medicaid rates, however, are not considered consistently by management when establishing charges. Figure 23 shows that all of the application choices were checked at similar levels, and that no particular one predominated.

Figure 22: Medicare schedules

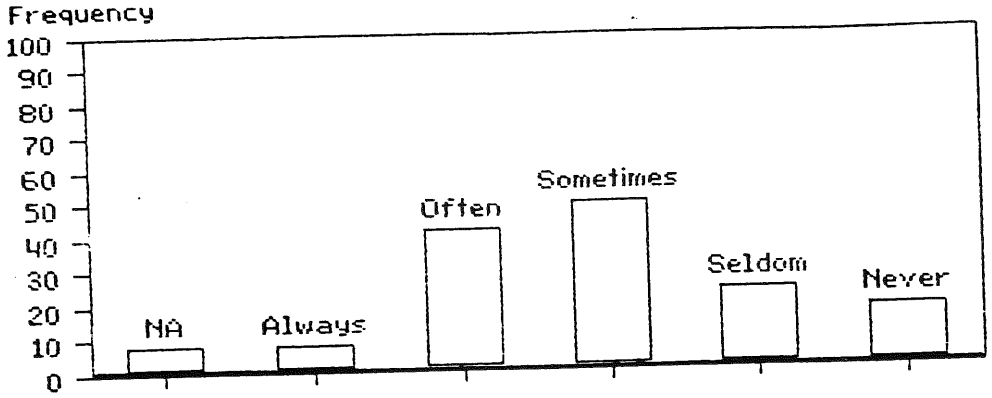


Figure 23: Medicaid rates

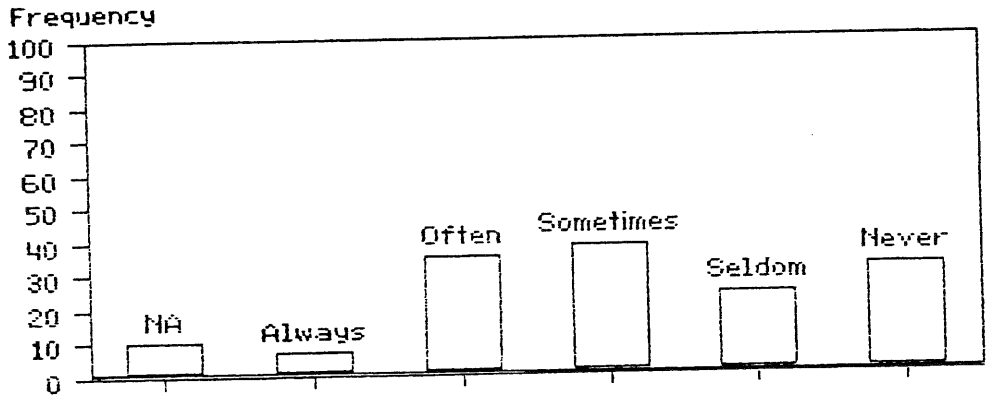
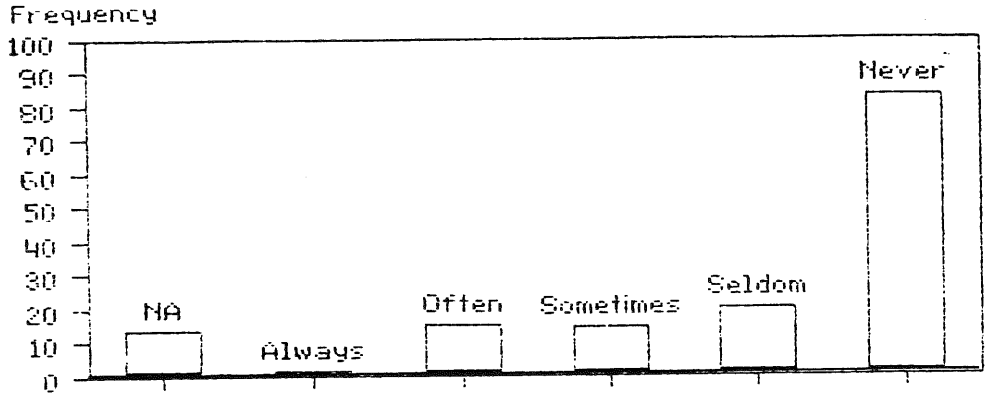


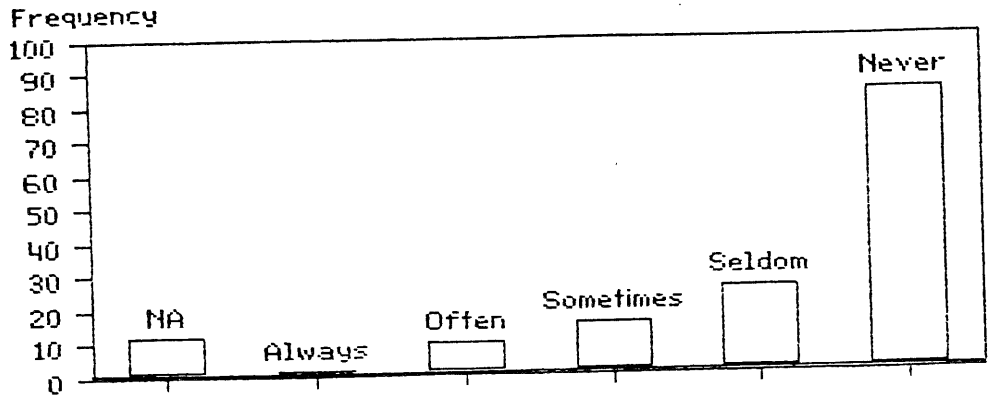
Figure 24 presents the findings on the use of Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) schedules in the process of fee setting. Eighty-three of the 146 completed surveys reported "never", demonstrating obvious management consistency. This component falls outside of the range at a significance level of five percent.

Figure 24: CHAMPUS schedules



Similar response was gained on the component concerning "rates provided by Workmen's Compensation Bureau." As shown in Figure 25, this component falls outside of the range at a one percent significance level.

Figure 25: Workmen's compensation rates



The final three components of question five all demonstrate inconsistent consideration by management during the process of fee setting. Figure 26 concerns "schedules provided by HMO or other contractual party".

Figure 26: HMO/other party schedules

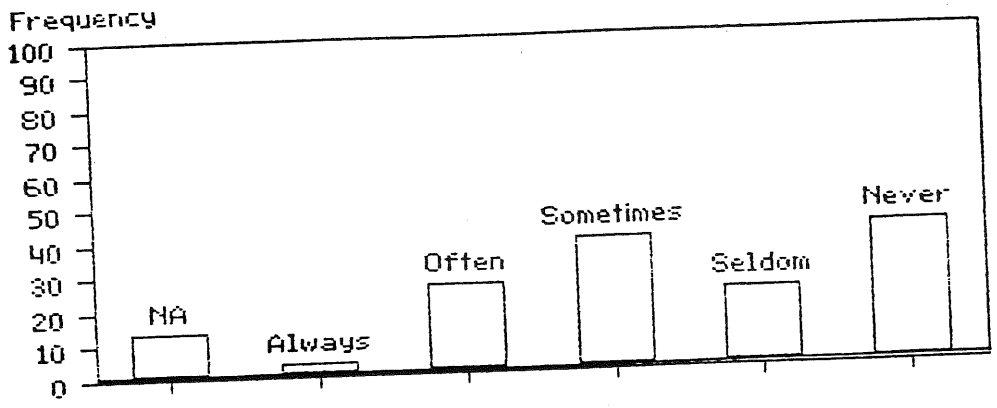
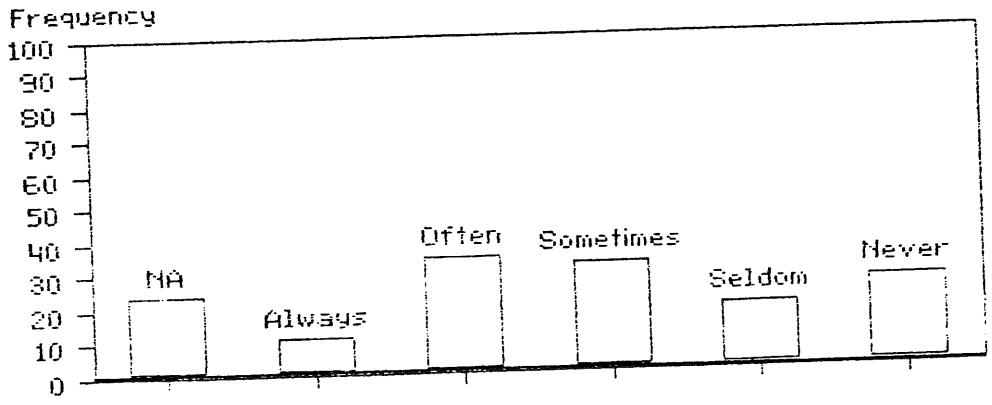


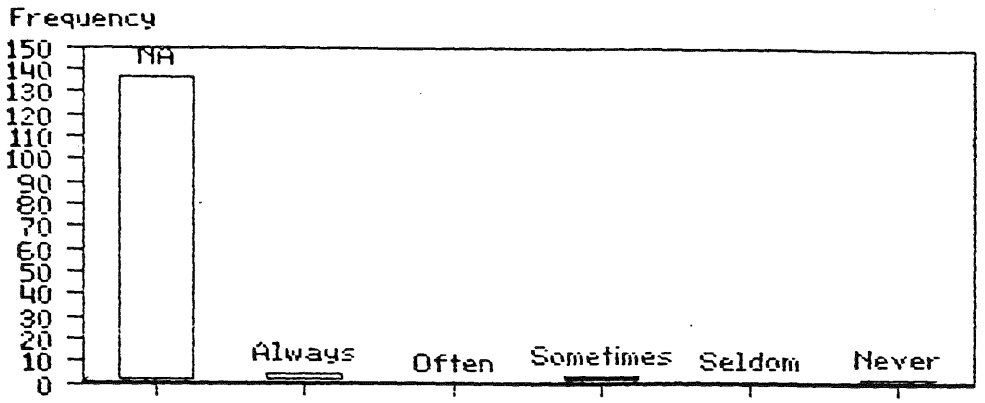
Figure 27 reports uses of a "self-developed method." Such a practice appears to be fairly common among those responding.

Figure 27: Self-developed method(s)



Nearly all respondents omitted an answer to the component "other" as a reference in the fee setting process, as Figure 28 shows. Based on this response, it appears that most of the common references had been given in the choices provided.

Figure 28: Other



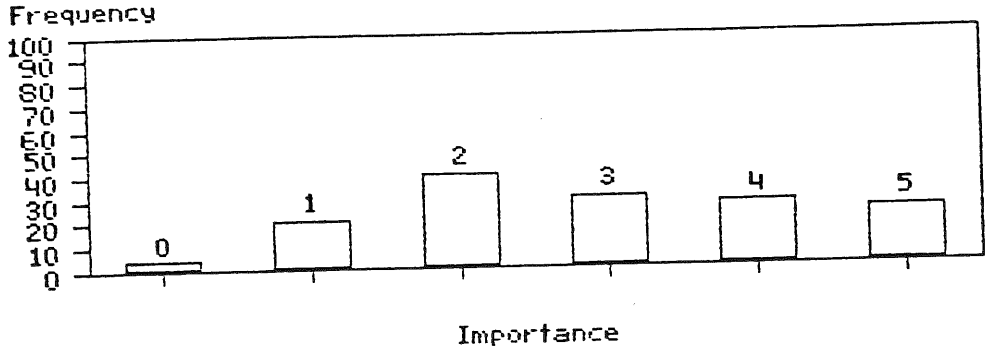
Questions Six and Seven

Question six asked "Does your residency rely on community physicians as teaching faculty within the program?" Only twenty three, or fourteen percent, gave "no" as their answer.

The seventh question presented a list of activities which the respondent was asked to rank in order of perceived importance to their residency program. A review of Figures 29 through 33 suggests that respondents consider patient relations as the most important of the activities listed. In descending order of importance, the other choices seem to be strategic planning, credit and collections, fee setting, and finally CPT coding as least important. The differences were so minimal in scoring of the last four choices that no significant observations can be reported. The actual

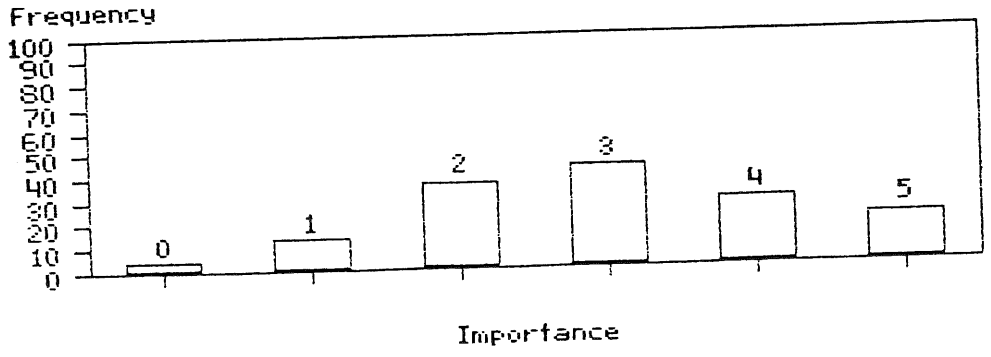
count of responses based on a scale of one through five, is shown in Appendix E.

Figure 29: Credit/collections



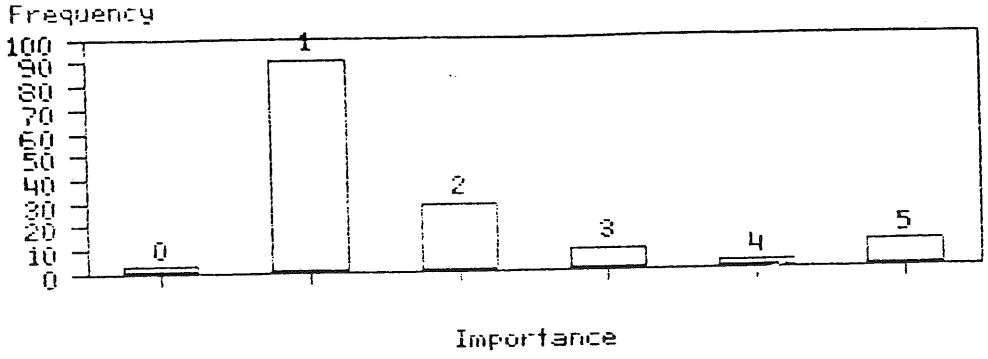
(1 = very important,
5 = very unimportant)

Figure 30: Fee setting



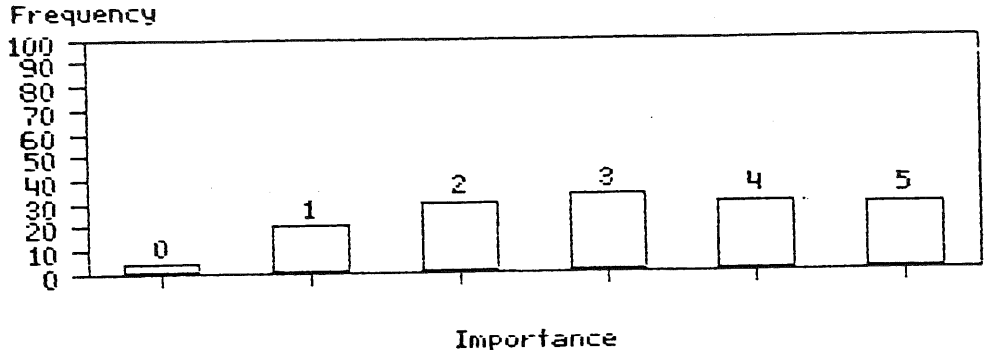
(1 = very important,
5 = very unimportant)

Figure 31: Patient relations



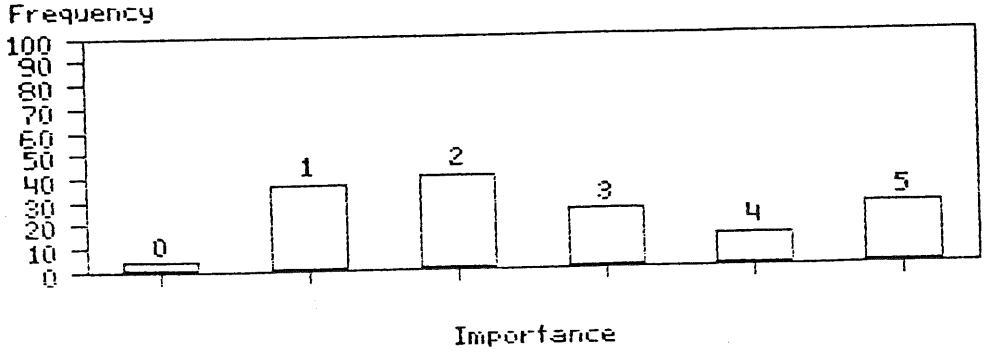
(1 = very important,
5 = very unimportant)

Figure 32: CPT coding



(1 = very important,
5 = very unimportant)

Figure 33: Strategic planning



(1 = very important,
5 = very unimportant)

Question Eight

In the final question, respondents were asked to "Estimate the financial support available to your residency program from patients and from other sources." Space was provided for the approximate value to be inserted in each of the two categories. Figures 34 and 35 graphically illustrate the values given.

Of these two, the "other revenue sources" grouping was further broken down into funding categories of state, federal, hospital, foundation, community, and other. Respondents were asked to select percentages grouped in units of ten up to fifty percent, with one final category of "fifty-one percent and over".

Figure 34: Percent support, patient revenue

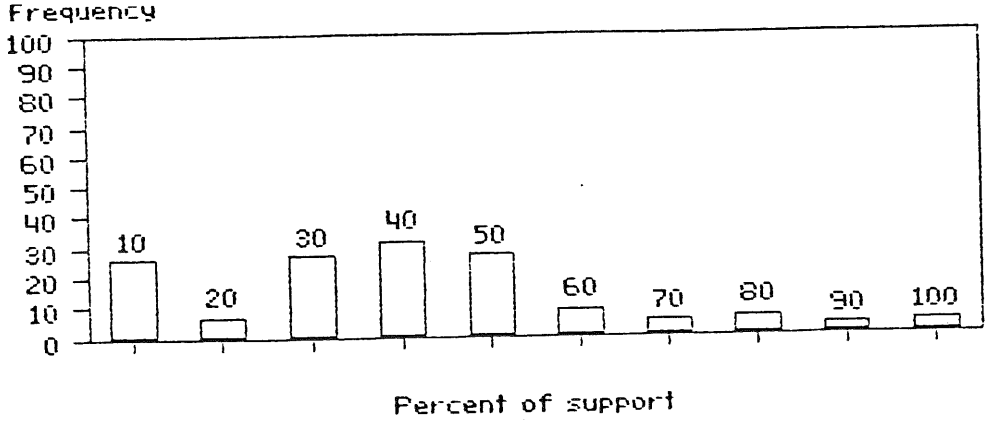
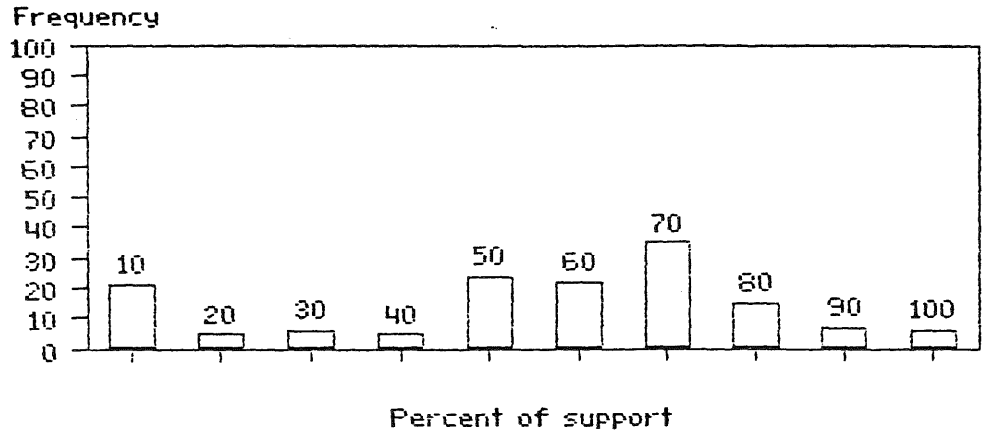


Figure 35: Percent support, other sources



Figures 36 through 41 exhibit the sources of non-patient support. As anticipated, funds from foundations, communities, and other sources were largely in the zero- to ten percent category. Federal grant sources also fell mainly within this grouping, although there were several responses within the ten to twenty percent range.

Hospital sources and state funding varied widely across the available choices, primarily due to the affiliation and structure of the residency program itself. The results graphed on Figure 38 illustrate a wide range of hospital support, which is not surprising since more than half of all Family Practice Residencies are hospital-sponsored. University programs appear to depend more on state support, as reflected in Figure 36.

Figure 36: Percent support, state funds

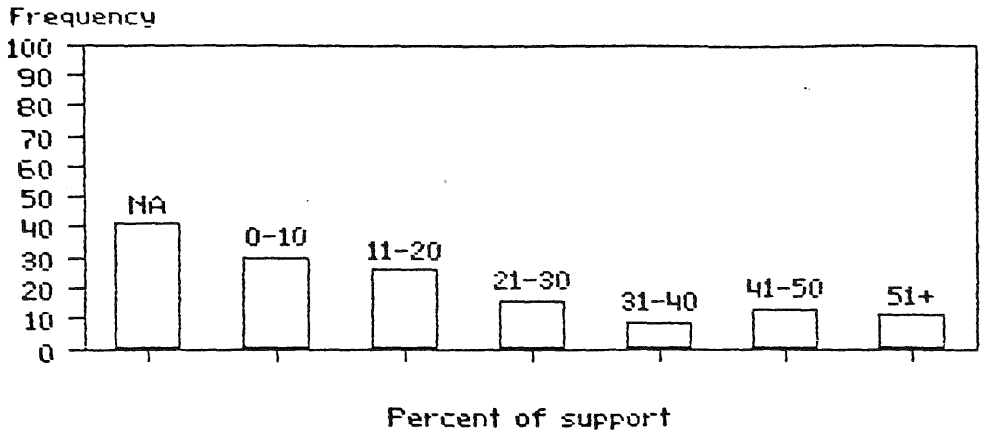


Figure 37: Percent support, federal funds

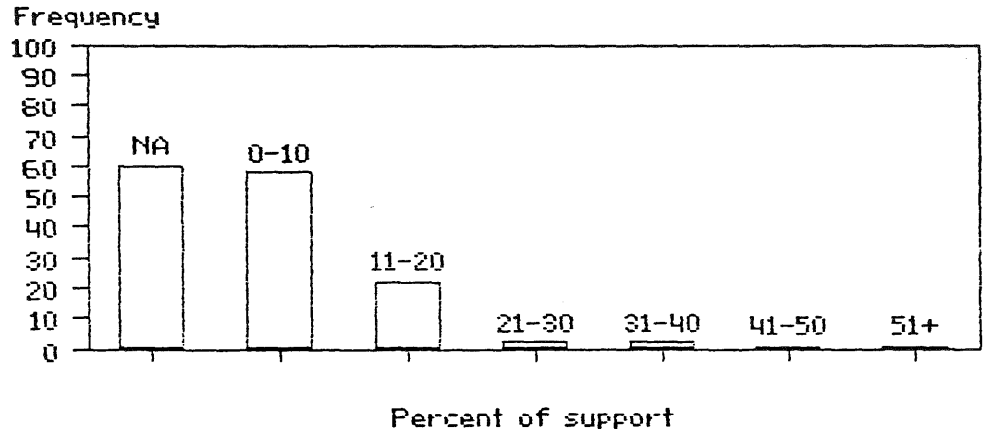


Figure 38: Percent support, hospital sponsors

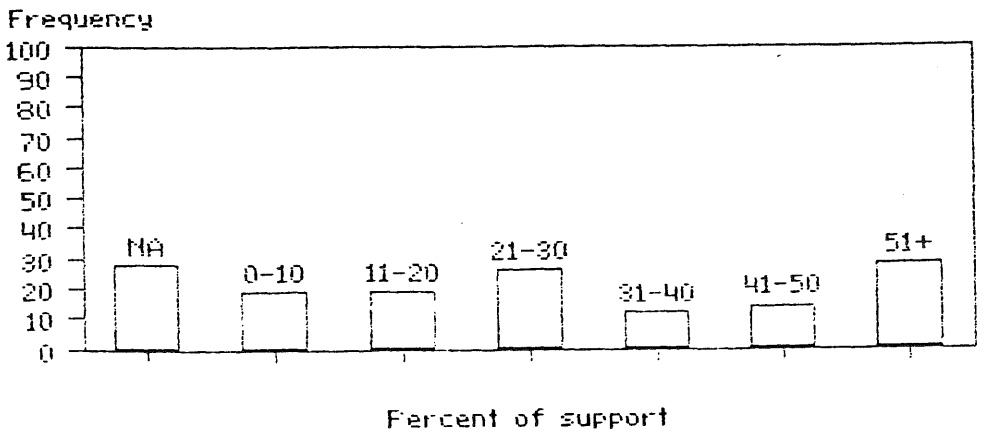


Figure 39: Percent support, foundations

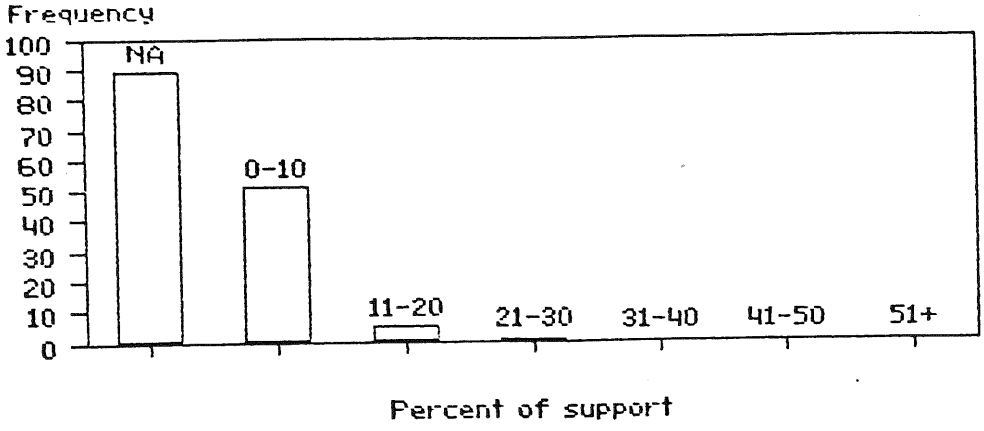


Figure 40: Percent support, community

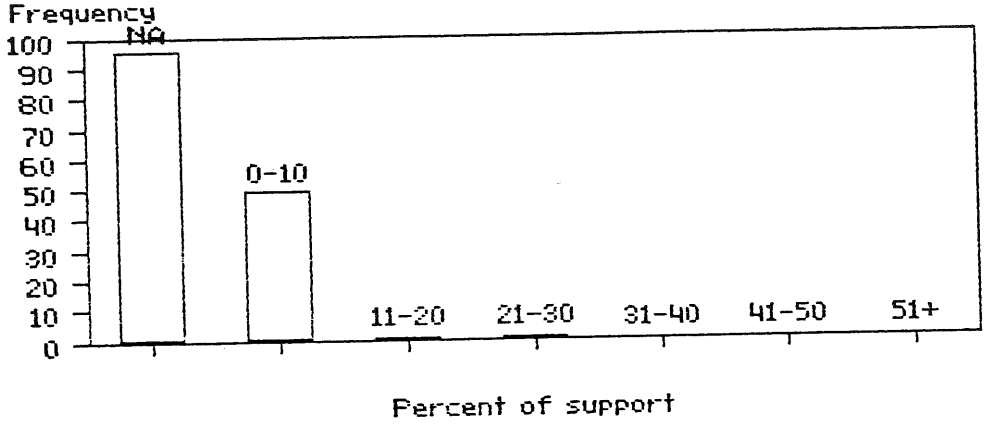
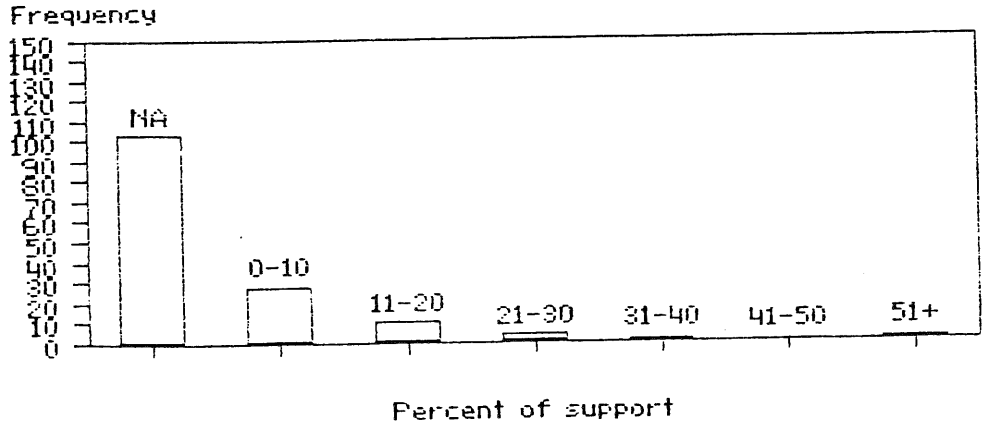


Figure 41: Percent support, other



CHAPTER V

CONCLUSION

Summary

This research was done based on a perception that there is no general agreement on fee management practices among Family Practice Residency Programs. Eight multi-facited questions regarding such fee management practices were developed as being pertinent to testing the null hypotheses. Approximately forty percent of the total population of 379 returned usable survey forms.

Most fee schedule revisions are done either in the first or third quarter of the year. Nearly eighty percent responded that fee schedule revisions had occurred within the most recent twelve-month period, while the remaining programs gave time spans ranging from thirteen months to eight years since revisions had been made.

Annual fee schedule revisions are by far the most frequent occurrence, with sixty-two percent indicating this timing. Twenty-two percent noted that revisions are done only on an "occasional" basis. The balance consisted mainly of responses of a "semi-annual" review or of "no answer".

Fifty-one percent described residency program fees as being "at" the community level, and forty percent indicated "below". The remainder either created some combination of "below-at" or "above-at", or did not respond at all.

There were several components of the question which asked about events which cause a review of fee schedules within a residency. As described in Appendix E, consistency of response was tested by identifying items for which a standard deviation whose value was small enough to be statistically significant. The three which were significant at a one percent level were decreased patient count, unfilled resident positions, and "other." At a five percent level declines in state/federal funding was significant. The "other" component fell outside of the range because nearly all respondents left this category without input. Decreased patient count, unfilled resident positions, and decreased state/federal funding were significant because most respondents indicated these were "never" factors in the decision.

The uniform distribution represents one form of complete disagreement among respondents regarding what actually precipitates a fee schedule review. It is thus apparent that there is no general agreement on what causes fees to be reviewed. The first null hypothesis tested must, therefore, be rejected and the alternative

hypothesis accepted because all evidence indicates that there is no consistent pattern to the evaluation of fee schedules.

Several items which might be utilized as tools in the process of making a fee schedule revision were listed and respondents were asked to indicate how often they used each choice. Again, standard deviation was used to measure consistency of response.

Those significant at a one percent level included similar CPT codes already in use, blind consumer surveys within the community, and schedules provided by CHAMPUS. At five percent the additional three which were significant included fee schedules of other providers, schedules provided by medicare, and rates provided by the Workmen's Compensation Bureau. Of these, those which were significant because they generally were "never" used were blind consumer surveys, schedules provided by CHAMPUS, and Workmen's Compensation Bureau rates. Those significant because they were "often" used were similar CPT codes/fees already in use, and fee schedules of other providers. Schedules provided by Medicare were significant, with the widest margin indicating the category of "sometimes."

Again, the uniform distribution represents disagreement among respondents regarding what tools might

be utilized in the process of reviewing fees, once it is determined that a review should take place. Null hypothesis number two should be accepted, because all indications are that there is no usable formula or analytical framework for fee schedule pricing and control. All evidence points to the fact that usable formulas do not exist, and are not commonly implemented.

When asked if the residency relies on community physicians as teaching faculty within the program, 123, or approximately eighty-six percent, responded affirmatively.

Respondents were asked to rank in importance five activities common to all programs. A review of the graphs suggests that respondents consider patient relations as the most important of the activities shown. In descending order of importance, the other choices seem to be strategic planning, credit and collections, fee setting, and finally CPT coding as least important.

In the final question, respondents were asked to estimate the financial support from patients and from other sources, which was further divided into categories. Several respondents commented that they "had no information" regarding actual revenue sources because they are hospital-controlled, and this information is not provided to them. While estimates were provided by most

of these respondents, consideration must be given to any assumptions made regarding their accuracy.

Within the "patient revenue" category of support, the common range was thirty to fifty percent, with the peak at forty. The most frequent response within the "other sources" category of support was at seventy percent, with the general range being fifty to seventy percent.

Based on the analysis of surveys as described above, this study seems to confirm the null hypothesis that there is no general agreement on the management practices among Family Practice Residency Programs.

Recommendations and Strategies

During times of single-digit inflation, fee schedules should be reviewed at least annually, preferably near the time when Medicare and Blue Cross Blue Shield profiles are being updated. During times of double-digit inflation, consideration should be given to reviewing fees twice per year.

There are other factors which should precipitate a review of fees, with the most common of these being changes or revisions to CPT codes and modifiers. Each year a new book is published, generally including several hundred changes to reflect current technology and medical practice. Changes in Medicare regulations

are also an influencing factor for fee schedule revisions, since these may directly impact revenues.

Fees should also be reviewed when there are significant cost increases, such as malpractice insurance and higher rent. When such general expenses increase, an attempt should be made to spread the cost as equitably as possible.

If large community employers change their healthcare plans, this may trigger a review. If the number of poor patients in the residency's patient base expands, a review of fees may be indicated. While considered less frequently, decreased funding or fewer patients may also influence the review scheduling.

A variety of tools are available to assist in the actual fee-setting process. The most useful of these are relative value guides, which help in comparing services done with others which are commonly provided in the clinic. These references list services done within a practice, each assigned a value which can then be used with a conversion factor to set a price. Revenue increases are easily implemented by changing the conversion factor. Similar CPT codes and fees already in use provide additional comparative data for setting of fees.

The use of blind consumer surveys, where a staff person "shops" as an unidentified consumer calling other

physicians to obtain current information for comparison, may be effectively used.

Fee schedules and rates of HMO's, Workmen's Compensation, and other such organizations provide basic comparative data, as do the Medicare prevailing rates and the "Blues" rates. By careful review of each provider's Medicare MAAC, as well as the Medicare "prevailing" more fitting fees can be set.

Across-the-board fee increases appear to be a common practice, but may generate less than maximum results. A large increase in a seldom-done but high-priced procedure will not impact net revenue in a predictable manner.

While the percentage of residency support from patient revenue ranges from zero to one hundred percent, the most common rate given was forty percent. Since a relatively small amount of support is obtained from patients in the training setting, the pricing of the services is most frequently established using the "going rate" theory to obtain a fair return and to preserve medical harmony. The balance of the expense must be covered by revenue from other sources.

As shown in Appendix G, residency programs may be sponsored in five different ways: Armed Forces, medical school based, community hospital based, community based

and medical school administered, and community based and medical school affiliated. The hospital sponsored category, community based and medical school affiliated, is largest by far at fifty-five percent. The hospital supplements patient revenue in these situations.

The next largest category at seventeen percent, is community based and medical school administered, and just behind at sixteen percent are medical school based residency programs. Programs in these categories must use other funding to supplement patient revenue, such as state support, grants, and similar sources.

To some extent, it appears that the methods used in setting fees are sometimes a reflection of the sponsoring agency. For example, across-the-board increases were common in hospital-sponsored program where this method of increasing revenue is often utilized.

There is a nationwide need for primary care physicians such as Family Practitioners. Since a large percentage of these physicians remain in the general area where they have obtained training, many states have established programs. The map in Appendix G illustrates the national emphasis on such training programs.

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APPENDICES

APPENDIX A

PROJECT REVIEW CARD, I.R.B.

FAMILY MEDICINE
PROJECT REVIEW CARD

Principal Investigator's Name Carol Schwan Date Sept 6, 1988

Project Title: Fee Setting in Academic Family Practice Residencies

Check Appropriate Category:

X Literature Review	_____ Case Study	_____ Clinical Medical Project
_____ Chart Audit	_____ Patient Interview	
_____ Patient Survey	X Professional Survey	

Project Description: The research topic is stated as follows: There are significant differences in the methods by which fees are established in family practice residency programs and in the ongoing control of fee schedules." A survey will be mailed to residency programs and statistically evaluated. Results of a literature review will be used to supplement the data, and a summary made in formal paper format.

I certify that the above research project involves [redacted] no risk to the research subjects.

X _____
Phase IV Preceptor-Family Medicine

_____
I. R. B. Representative

_____
Dept. of Family Medicine Faculty

APPENDIX B

SAMPLE OF DIRECTORY INFORMATION

321140001 PAGE 451

UNIV OF ND FAMILY PRACTICE
110 BURDICK EXPRESSWAY WEST
MINOT ND 58701

NAME OF DIRECTOR: DAVID A RINN, MD
PHONE NUMBER: 701-857-5740 PROGRAM STRUCTURE: 3A

LOCATION OF RESIDENCY: RURAL

PRIMARY HOSPITAL FOR FAMILY
PRACTICE RESIDENCY ADMISSIONS: TRINITY MED CTR & ST JOSEPH'S
TOTAL NUMBER OF BEDS: 460

BEDS ARE AVAILABLE FOR FP ADMISSIONS IN THIS
HOSPITAL FOR THE SERVICES: FAMILY PRACTICE SERVICES, MEDICINE, SURGERY, PSYCHIATRY, OBSTETRICS, PEDIATRICS

THE RESIDENCY HAS MORE THAN ONE FAMILY PRACTICE CENTER

TOTAL NUMBER OF HOSPITALS FOR ADMITTING: 2
TOTAL NUMBER OF HOSPITALS FOR REQUIRED ROTATIONS: 3

OTHER RESIDENCIES (NOT SERVICES) IN THE
HOSPITALS USED FOR REQUIRED ROTATIONS: NONE

SINCE THE YEAR OF INITIAL APPROVAL (1975) THERE WERE 35 FP GRADS

	APPROVED POSITIONS 1987-88	FILLED POSITIONS 1987-88	RESIDENT FEMALES 1987-88	RESIDENT MINORITIES 1987-88	FMG/US CITIZEN 1987-88	FMG/NOT US CITIZEN 1987-88
PGY-1:	4	3	0	2	1	1
PGY-2:	4	4	1	2	NR	1
PGY-3:	4	4	2	1	2	NR

REMUNERATION:

	SALARY 1987-88	WEEKS PAID VACATION
PGY-1:	$19,415	2
PGY-2:	$21,212	3
PGY-3:	$22,414	3

OTHER BENEFITS:

LIABILITY INSURANCE	YES	MEALS	YES
HEALTH INSURANCE	YES	LAUNDRY	YES
LIFE INSURANCE	NO	PARKING	YES
DISABILITY INSURANCE	NO	TIME OFF FOR CONFERENCES . . .	YES
HOUSING ALLOWANCE	NO	FUNDS FOR CONFERENCES	YES

MOONLIGHTING ALLOWED: AT THE PARENT-HOSPITAL: NO
AT OTHER HOSPITALS: YES

AVERAGE ANNUAL IN-HOSPITAL NIGHT CALL FREQUENCY:
PGY-1: Q4D PGY-2: NONE PGY-3: NONE

ANNUAL FREQUENCY OF OTHER NECESSARY TRIPS TO:
HOSPITAL AS A RESULT OF NIGHT CALLS AT
HOME (IN ADDITION TO THE ABOVE STATED CALL)

PGY-1: Q6D
PGY-2: Q7D-Q14D
PGY-3: Q7D-Q14D

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FACULTY TO RESIDENTS RATIO DURING PATIENT CARE HOURS:
1 PHYSICALLY PRESENT FACULTY TO 5 RESIDENTS IN THE FPC

FULL-TIME EQUIVALENT STAFF AND FACULTY AT THE FAMILY PRACTICE CENTER:
MD-FP: 2 MD-OTHER: 0 OTHER HEALTH CARE PROFESSIONAL
FACULTY (E.G. PSYCHOLOGISTS, BEHAVIORAL SCIENTISTS): 2
PHYSICIAN ASSISTANTS OR NURSE PRACTITIONERS: 0

AVERAGE NUMBER OF HALF DAYS (3-4 HRS)/WEEK SPENT BY FP RESIDENTS IN THE FP CENTER: PGY-1: 1 PGY-2: 3 PGY-3: 5

AVERAGE NUMBER OF PATIENTS SEEN PER HALF DAY (3-4 HRS) BY FP RESIDENTS IN THE FP CENTER: PGY-1: 4 PGY-2: 6 PGY-3: 9

NUMBER OF REQUIRED FP SPONSORED CONFERENCES DESIGNED FOR RESIDENTS:
CLINICAL SCIENCES: 15/MONTH BEHAVIORAL SCIENCES: 2/MONTH
PRACTICE MANAGEMENT: 8/YEAR

REQUIRED RESIDENCY TRAINING FOR THE ROTATIONS:

OB (IN HOSPITAL):	5 MONTHS OR MORE
GENERAL SURGERY (IN HOSPTAL):	2 MONTHS
PEDIATRICS (IN HOSPITAL):	4 MONTHS
CCU/ICU:	RESIDENTS RECEIVE PERIODIC EXPOSURE BUT A BLOCK OF TIME IS NOT SCHEDULED

DOCUMENTATION: COMPUTERIZED SYSTEM FOR EACH RESIDENT'S EXPERIENCE DOES EXIST

RESIDENT RESEARCH: ENCOURAGED, BUT OPTIONAL

RESIDENT ORGANIZATION IN HOSPITAL: NONE

GRIEVANCES: A FORMAL MECHANISM EXISTS FOR EXPRESSING GRIEVANCES AND ASSURING DUE PROCESS

FOURTH YEAR POSITION: NOT OFFERED

FELLOWSHIP: NOT OFFERED

CLERKSHIPS/PRECEPTORSHIPS: OFFERED TO ALL U.S. MEDICAL STUDENTS

PART-TIME OR SHARED RESIDENCIES: NOT OFFERED

MATERNITY LEAVE: ESTABLISHED POLICY DOES NOT EXIST

PATERNITY LEAVE: ESTABLISHED POLICY DOES NOT EXIST

THE PROGRAM ADMINSTERED BY THE UND SCHOOL OF MEDICINE, RECEIVED FULL ACCREDITATION IN 1985. RESIDENT SELECTION IS MADE THROUGH THE NRMP, FILLING 4 PG1 POSITIONS ANNUALLY. EMPHASIS IS PLACED ON TRAINING RESIDENTS FOR PRACTICING IN RURAL AREAS. THREE FULL-TIME FACULTY & MORE THAN 50 COMMUNITY FACULTY PARTICIPATE IN TEACHING. MOONLIGHTING IS ALLOWED, SUBJECT TO APPROVAL BY THE PROGRAM DIRECTOR.

APPENDIX C

COVER LETTER

ROUTE 4, BOX 23
MINOT, NORTH DAKOTA 58701
NOVEMBER 14, 1988

DEAR MANAGER,

HEALTH CARE ADMINISTRATION HAS CHANGED SIGNIFICANTLY OVER RECENT YEARS, PARTICULARLY WITHIN ACADEMIC SITUATIONS. BECAUSE OF MY EMPLOYMENT AS A BUSINESS MANAGER OF A FAMILY PRACTICE PROGRAM, I AM ESPECIALLY AWARE OF THESE CHANGES AS THEY RELATE TO FEE SETTING.

MANAGEMENT OF FEE SCHEDULES INVOLVES NOT ONLY TIMING ISSUES, BUT ALSO SUCH CONCERNS AS APPROPRIATE REFERENCE SOURCES, COMMUNITY PERCEPTIONS, ETC. I AM UNDERTAKING A STUDY TO IDENTIFY SOME OF THE FACTORS AND CONCERNS RELATIVE TO THE SETTING OF FEES IN ACADEMIC FAMILY PRACTICE RESIDENCY PROGRAMS. THIS STUDY WILL BE ANALYZED WITHIN A FORMAL PAPER WHICH I WILL SUBMIT AS A GRADUATE STUDENT REQUIREMENT AT THE UNIVERSITY OF NORTH DAKOTA.

PLEASE TAKE A FEW MINUTES TO ANSWER THE QUESTIONS ON THE ENCLOSED FORM. YOUR ADDED COMMENTS ARE INVITED, AND SPACE IS AVAILABLE ON THE REVERSE SIDE. AFTER COMPLETION, FOLD AS INDICATED AND STAPLE SO THE ADDRESS AND POSTAGE ARE VISIBLE. MAILING PRIOR TO NOVEMBER 30 WILL BE APPRECIATED.

YOUR RESPONSE WILL BE KEPT CONFIDENTIAL AND USED ONLY IN COMBINATION WITH OTHERS TO GET A COMPOSITE VIEW. IF YOU ARE INTERESTED IN THE RESULTS, PLEASE PROVIDE A NAME AND ADDRESS TO WHICH I MAY RESPOND.

YOUR RESPONSE IS IMPORTANT TO THE ACCURACY OF THIS RESEARCH. THANK YOU VERY MUCH FOR YOUR HELP.

CORDIALLY,

Carol L Schwan

CAROL L. SCHWAN

APPENDIX D

SURVEY (shown at 71% of full size)

1. WHEN WAS YOUR LAST FEE SCHEDULE REVISION ? _____ (MONTH & YEAR)

2. WHICH ONE BEST DESCRIBES HOW OFTEN YOUR FEE SCHEDULES ARE REVISED ?
   - ☐ ANNUALLY
   - ☐ SEMI-ANNUALLY
   - ☐ QUARTERLY
   - ☐ OCCASIONALLY, AS THE NEED IS PERCEIVED
   - ☐ OTHER _____

3. WHICH ONE BEST DESCRIBES HOW YOUR FEES COMPARE WITHIN YOUR COMMUNITY?
   - ☐ PATIENT FEES ARE BELOW THE COMMUNITY NORM
   - ☐ PATIENT FEES ARE AT THE COMMUNITY NORM
   - ☐ PATIENT FEES ARE ABOVE THE COMMUNITY NORM

4. WHAT EVENTS CAUSE YOU TO REVIEW FEE SCHEDULES OF YOUR RESIDENCY ?

ALWAYS	OFTEN	SOMETIMES	SELDOM	NEVER	
☐	☐	☐	☐	☐	WHEN NEEDED TO MAINTAIN FINANCIAL INTEGRITY
☐	☐	☐	☐	☐	WHEN THE PATIENT COUNT DECREASES
☐	☐	☐	☐	☐	WHEN MEDICARE REGULATIONS CHANGE
☐	☐	☐	☐	☐	WHEN STATE/FEDERAL FUNDING IS DECREASED
☐	☐	☐	☐	☐	WHEN OPERATING EXPENSE INCREASES
☐	☐	☐	☐	☐	WHEN NEW CPT CODES/MODIFIERS ARE PUBLISHED
☐	☐	☐	☐	☐	WHEN RESIDENT POSITIONS ARE UNFILLED (NUMBER NOW VACANT _____)
☐	☐	☐	☐	☐	WHEN REGULAR REVIEWS ARE SCHEDULED
☐	☐	☐	☐	☐	OTHER_____

5. PLEASE INDICATE HOW OFTEN YOU CONSIDER EACH OF THE FOLLOWING WHEN SETTING FEES FOR PATIENT SERVICES ?

ALWAYS	OFTEN	SOMETIMES	SELDOM	NEVER	
☐	☐	☐	☐	☐	SIMILAR CPT CODES/FEES ALREADY IN USE AT CENTER
☐	☐	☐	☐	☐	BLIND CONSUMER SURVEYS WITHIN THE COMMUNITY
☐	☐	☐	☐	☐	RELATIVE VALUE GUIDES
☐	☐	☐	☐	☐	DEMANDS OF FINANCE PEOPLE FOR REVENUE INCREASES
☐	☐	☐	☐	☐	EXPERIENCE OF TEACHING FACULTY WITHIN RESIDENCY
☐	☐	☐	☐	☐	CASH FLOW DEFICIT
☐	☐	☐	☐	☐	AN ACROSS-THE-BOARD PERCENTAGE INCREASE IN FEES
☐	☐	☐	☐	☐	FEE SCHEDULES OF OTHER PROVIDERS
☐	☐	☐	☐	☐	RATES/SCHEDULES USED BY "THE BLUES "
☐	☐	☐	☐	☐	SCHEDULES PROVIDED BY MEDICARE
☐	☐	☐	☐	☐	RATES PROVIDED BY MEDICAID
☐	☐	☐	☐	☐	SCHEDULES PROVIDED BY CHAMPUS
☐	☐	☐	☐	☐	RATES PROVIDED BY WORKMEN'S COMPENSATION BUREAU
☐	☐	☐	☐	☐	SCHEDULES PROVIDED BY HMO OR OTHER CONTRACTUAL PARTY
☐	☐	☐	☐	☐	SELF-DEVELOPED METHOD
☐	☐	☐	☐	☐	OTHER _____

6. DOES YOUR RESIDENCY RELY ON COMMUNITY PHYSICIANS AS TEACHING FACULTY WITH THE PROGRAM ☐ YES ☐ NO

7. PLEASE RANK THESE BUSINESS ACTIVITIES 1 - 5 BASED ON YOUR PERCEPTION OF THEIR IMPORTANCE TO YOUR PROGRAM. USE 1 FOR THE MOST IMPORTANT, ETC. CHECK ONLY ONE BOX IN EACH COLUMN.

1	2	3	4	5	
☐	☐	☐	☐	☐	CREDIT AND COLLECTIONS
☐	☐	☐	☐	☐	FEE SETTING
☐	☐	☐	☐	☐	PATIENT RELATIONS
☐	☐	☐	☐	☐	CPT CODING
☐	☐	☐	☐	☐	STRATEGIC PLANNING

8. ESTIMATE THE FINANCIAL SUPPORT AVAILABLE TO YOUR RESIDENCY PROGRAM FROM PATIENTS AND FROM OTHER SOURCES.

_____% PATIENT REVENUE
_____% OTHER REVENUE SOURCES

	0-10%	11-20%	21-30%	31-40%	41-50%	51%-OVER
STATE FUNDING	☐	☐	☐	☐	☐	☐
FEDERAL FUNDS (GRANTS).....	☐	☐	☐	☐	☐	☐
HOSPITAL SPONSORS	☐	☐	☐	☐	☐	☐
FOUNDATION FUNDS	☐	☐	☐	☐	☐	☐
COMMUNITY FUNDS	☐	☐	☐	☐	☐	☐
OTHER	☐	☐	☐	☐	☐	☐

100 %

9. YOUR COMMENTS ARE WELCOMED...NOTE THEM IN THE SPACE PROVIDED ON THE BACK, OR ATTACH A SEPARATE SHEET PRIOR TO MAILING.

APPENDIX E

STATISTICAL DATA

The issue of primary interest in this study was the consistency of management practices. This suggests the use of standard deviations as a measure of the results. The difficulty with using the standard deviation is that its sampling distribution cannot in general be determined. See, for example, Encyclopedia of Statistical Sciences, Volume 9, page 479 or Statistical Theory, Lindgren, page 216.

The approach that was used to determine and empirical sampling distribution as a basis for inference. This distribution is reproduced below. It was obtained by generating 1000 samples of size 146 from a discrete uniform distribution with values 1 through 5, using the random number generator supplied with the TWIN (@) spreadsheet.

Empirical Distribution of Standard Deviations

STD	FREQ	CDF	STD	FREQ	CDF	STD	FREQ	CDF
0.85	0	0	1.14	0.009	0.087	1.43	0.016	0.663
0.86	0.002	0.002	1.15	0.01	0.097	1.44	0.039	0.702
0.87	0.001	0.003	1.16	0.006	0.103	1.45	0.011	0.713
0.88	0	0.003	1.17	0.015	0.118	1.46	0.051	0.764
0.89	0.001	0.004	1.18	0.018	0.136	1.47	0.012	0.776
0.09	0	0.004	1.19	0.008	0.144	1.48	0.025	0.801
0.91	0	0.004	1.20	0.023	0.167	1.49	0.009	0.81
0.92	0.001	0.005	1.21	0	0.167	1.50	0.034	0.844
0.93	0	0.005	1.22	0.032	0.199	1.51	0.012	0.856
0.94	0.001	0.006	1.23	0.026	0.225	1.52	0.005	0.861
0.95	0.001	0.007	1.24	0.017	0.242	1.53	0.015	0.876
0.96	0	0.007	1.25	0.024	0.266	1.54	0.016	0.892
0.97	0.006	0.013	1.26	0	0.266	1.55	0.014	0.906
0.98	0	0.013	1.27	0.038	0.304	1.56	0.008	0.914
0.99	0.001	0.014	1.28	0.024	0.328	1.57	0.013	0.927
1.00	0.005	0.019	1.29	0.006	0.334	1.58	0.013	0.94
1.01	0	0.019	1.30	0.023	0.357	1.59	0.011	0.951
1.02	0	0.019	1.31	0.019	0.376	1.60	0.008	0.959
1.03	0.004	0.023	1.32	0.021	0.397	1.61	0.002	0.961
1.04	0.001	0.024	1.33	0.031	0.428	1.62	0.007	0.968
1.05	0.002	0.026	1.34	0.013	0.441	1.63	0.006	0.974
1.06	0.013	0.039	1.35	0.034	0.475	1.64	0.006	0.98
1.07	0.001	0.04	1.36	0.012	0.487	1.65	0.004	0.984
1.08	0.004	0.044	1.37	0.059	0.546	1.66	0.009	0.993
1.09	0.006	0.05	1.38	0.016	0.562	1.67	0	0.993
1.10	0	0.05	1.39	0.002	0.564	1.68	0.002	0.995
1.11	0.005	0.055	1.40	0.021	0.585	1.69	0.002	0.997
1.12	0.023	0.078	1.41	0.038	0.623	1.70	0.002	0.999
1.13	0	0.078	1.42	0.024	0.647	1.71	0.001	1

Choosing this approach implies that the null hypothesis is one of perfect inconsistency of response. The uniform distribution represents one form of complete disagreement among the respondents. Hence it serves as an appropriate basis for investigating the degree of consistency in the responses, by identifying those questions for which the responses had a standard deviation whose value is small enough to be statistically significant. Significance here is measured by the empirical distribution given earlier.

The table below gives the p-values for questions 4 and 5 of the questionnaire. These p-values are obtained from the empirical distribution.

P-Values for Responses to Questions 4 and 5

QUES	STD DEV	P-VALUE	QUES	STD DEV	P-VALUE
4a	1.22	0.199	5a	1.12	0.078
4b	0.79	0.000	5b	1.12	0.078
4c	1.24	0.242	5c	1.33	0.428
4d	1.12	0.078	5d	1.23	0.225
4e	1.16	0.103	5e	1.29	0.334
4f	1.37	0.546	5f	1.19	0.144
4g	0.39	0.000	5g	1.21	0.167
4h	1.49	0.810	5h	0.94	0.006
4i	1.01	0.019	5i	1.25	0.266
			5j	1.09	0.050
			5k	1.23	0.225
			5l	1.14	0.087
			5m	0.98	0.013
			5n	1.20	0.167
			5o	1.28	0.328
			5p	1.75	1.000

Other approaches were considered. It is natural, for instance, to consider a chi-square test for departure from uniformity. the problem with this is that it does not distinguish between nonuniformity because of strong agreement and nonuniformity because of division of responses into two camps (bimodality). The standard deviation for the latter case would be large; for the former, small. Thus it does distinguish these cases.

SURVEY RESULTS

		NO ANSWER 0	ALWAYS 1	OFTEN 2	SOMETIMES 3	SELDOM 4	NEVER 5	TOTAL	MEAN	STANDARD DEV.	
QUESTION 2		10	90	13	1	32	0	146			
QUESTION 3		3	59	8	74	0	2	146			
QUESTION	4-A	18	25	33	46	10	14	146	2.63	1.22	
	4-B	21	0	3	5	31	86	146	4.56	0.79	**
	4-C	19	15	21	42	27	22	146	3.16	1.24	
	4-D	19	2	8	31	24	62	146	4.04	1.12	*
	4-E	11	18	39	50	12	16	146	2.77	1.16	
	4-F	18	13	25	28	27	35	146	3.33	1.37	
	4-G	19	0	0	2	13	112	146	4.87	0.39	**
	4-H	12	62	26	15	10	21	146	2.27	1.49	
	4-I	130	10	3	2	1	0	146	1.53	1.01	**
QUESTION	5-A	19	32	51	30	4	10	146	2.28	1.12	*
	5-B	10	4	10	20	23	79	146	4.20	1.12	*
	5-C	14	9	32	33	17	41	146	3.37	1.33	
	5-D	8	10	24	50	20	34	146	3.32	1.23	
	5-E	11	3	26	36	21	44	146	3.50	1.29	
	5-F	11	4	20	31	29	51	146	3.76	1.19	
	5-G	10	13	36	45	19	23	146	3.02	1.21	
	5-H	5	20	59	47	10	5	146	2.44	0.94	**
	5-I	12	7	36	38	23	30	146	3.22	1.25	
	5-J	8	8	41	49	23	17	146	3.00	1.09	**
	5-K	10	7	35	38	24	32	146	3.29	1.23	
	5-L	13	1	15	14	20	83	146	4.24	1.14	*
	5-M	12	1	9	15	25	84	146	4.36	0.98	**
	5-N	13	4	26	39	23	41	146	3.53	1.20	
	5-O	24	11	34	32	19	26	146	3.12	1.28	
	5-P	136	4	0	3	1	2	146	2.34	1.75	
		YES	NO								
QUESTION 6		123	23					146			
		VERY IMPORTANT					-----VERY UNIMPORTANT				
QUESTION	7-A	4	21	40	30	27	24	146			
	7-B	4	13	37	43	28	21	146			
	7-C	3	91	29	9	3	11	146			
	7-D	4	20	30	33	30	29	146			
	7-E	4	37	40	25	14	26	146			

* = 5% SIGNIFICANCE
** = 1% SIGNIFICANCE

APPENDIX F

GLOSSARY AND ABBREVIATIONS

ASSIGNMENT = The amount which Medicare determines is reasonable to pay for a particular service to a particular provider within a designated area. If the provider "accepts assignment", he states that he will not charge the patient more than what Medicare pays except for mandated patient deductables and co-payments.

"BLUES" = The common nickname for the Blue Cross and Blue Shield insurance companies.

CPT = Current Procedural Terminology is the listing of standardized assigned codes and corresponding procedures

CUSTOMARY = For Medicare services, this is the amount that a medical provider normally bills for a procedure. For Blue Cross and Blue Shield services, this is a range of fees based on average fees charged by certain groups of physicians and specialists in different geographic areas (called "prevailing" by Medicare.)

HCFA = Health Care Financing Administration is the government body which administers such programs as Medicare.

HCPCS = Health care Common Procedure Coding System is the system of codes developed by HCFA for medical services.

ICD-9-CM = International Classification of Disease, Ninth Revision, Clinical Modification

I.R.B. = Institutional Review Board

MAAC or Maximum Allowable Actual Charge = The maximum charge which Medicare will allow a non-participating provider to bill for services to Medicare patients.

MEDICARE ECONOMIC INDEX = The economic adjustment factor utilized by Medicare in limiting fees to the amount of increase of other services within the economy.

NON-PARTICIPATING PROVIDER = A provider who has not agreed to accept as payment in full the amount determined by Medicare or another third party payer for services given. Providers not participating in Medicare cannot exceed their MAAC when billing for patient services.

PARTICIPATING PROVIDER = A provider who agrees to accept as payment in full the amount received from Medicare or another third party payer (such as the Blues) for services provided. Medicare mandates that patients are required to pay certain deductables and co-payments, however. Other third party payors may also have certain regulations regarding required patient payments.

PREVAILING CHARGE = Determined by Medicare by reviewing all of the fees charged by all of the providers in a specialty during the prior year within the locality, and selecting the rate that is seventy-five percent between the highest and lowest (called "customary" by Blue Cross and Blue Shield.)

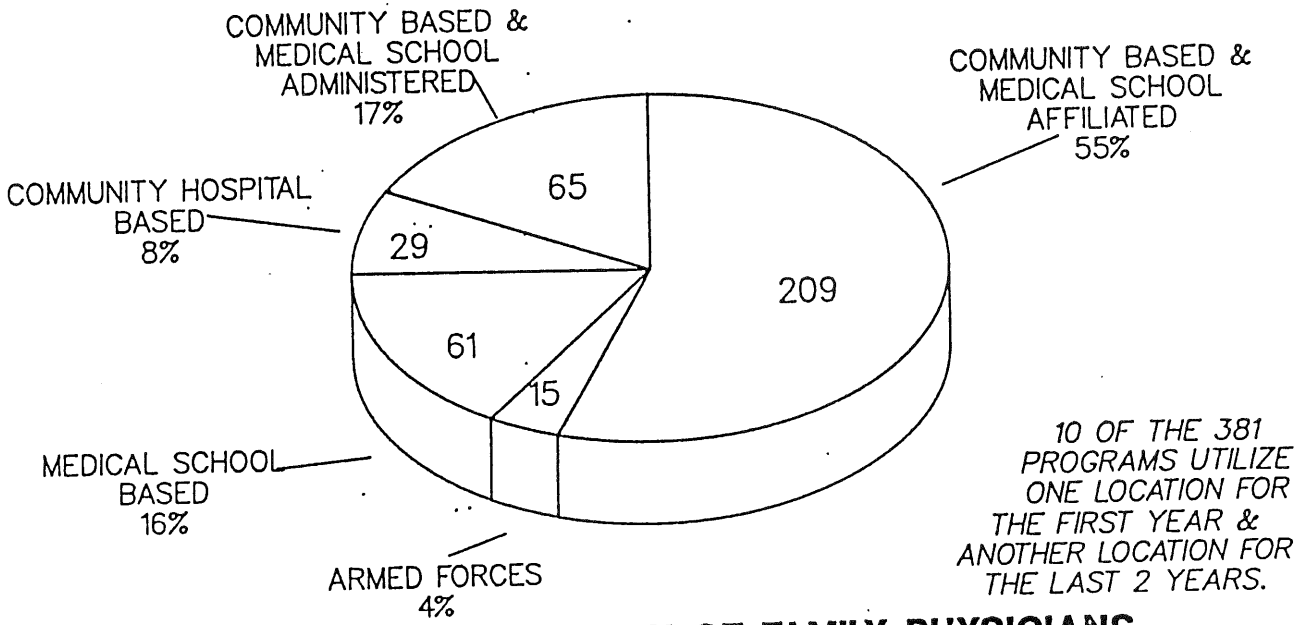
PROFILE = A schedule of allowable rates for a provider of a given service within a given area. For Medicare it is the lower of the "customary" or "prevailing" charges used by Medicare providers.

REASONABLE = The average fee as determined from profile data for Blue Cross and Blue Shield.

THIRD PARTIES OR THIRD PARTY PAYERS = Patients obtain services from medical providers, but the costs of these services are often paid by a third party, such as an insurance agency or another organization like Medicare or Medicaid.

USUAL = For Blue Cross and Blue Shield services, this is the amount normally charged (called "customary" by Medicare.)

*381 ACCREDITED FAMILY PRACTICE RESIDENCIES—JULY 1988

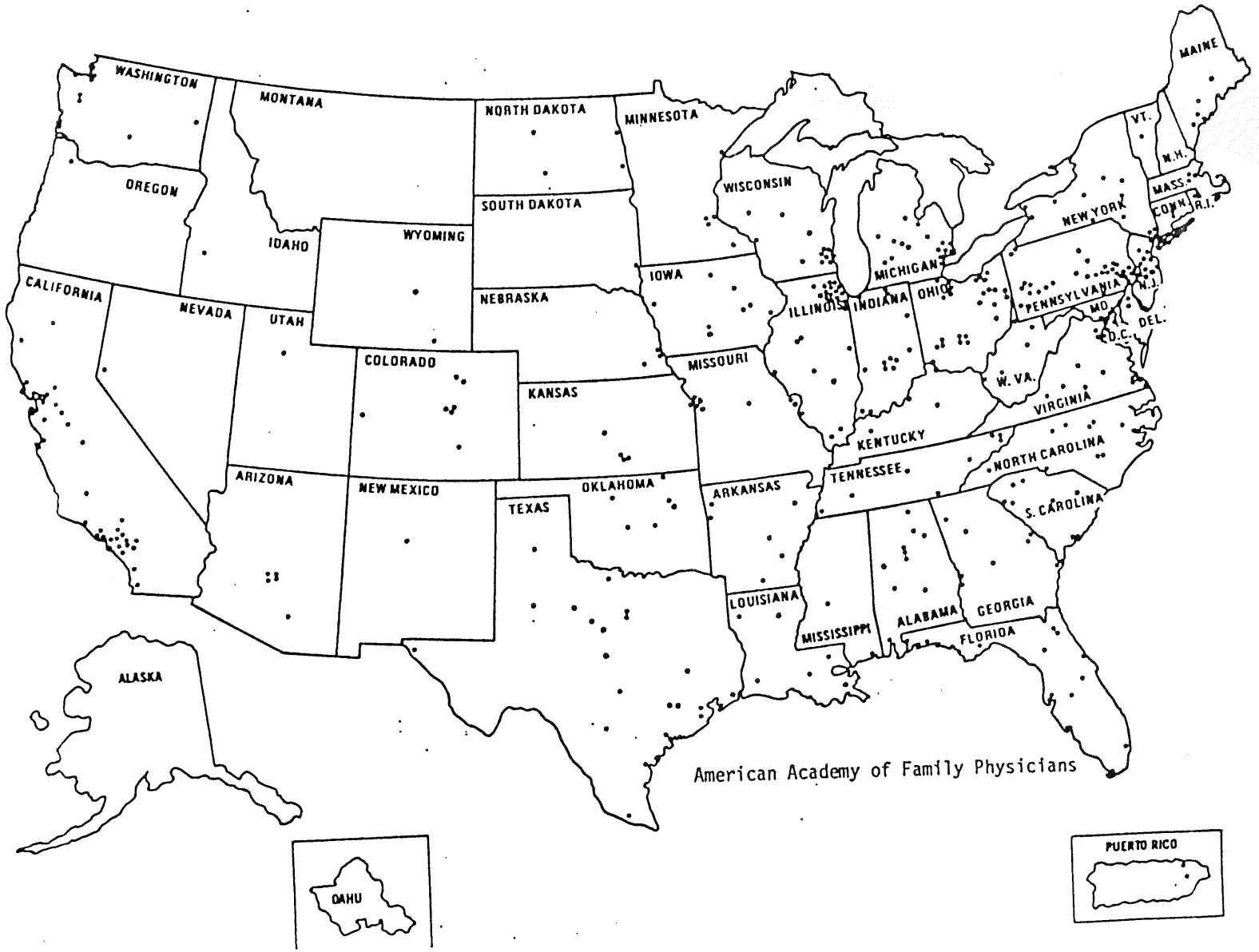


THE AMERICAN ACADEMY OF FAMILY PHYSICIANS

Source: AAFP Residency Census (1988)

* Total programs = 381
There are two newly accredited programs which have not yet accepted residents at this date

FAMILY PRACTICE RESIDENCY PROGRAMS



Schwan, Carol L.
Management Practices in Family
Practice Residency Prgrams.