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ABSTRACT

This report examines performance evaluations of state loan/scholarship programs and direct support for medical education reform programs for the education and training of health care professionals. It is based on a survey of all administrators of state scholarship and loan repayment programs and a mail survey of officials in the 34 states which have massed medical education reform laws. Part 1 examines efforts to evaluate state scholarship and loan repayment programs and Part 2 reports on evaluations of state medical education reforms. Overall, the study found that most scholarship and loan repayment programs and other medical education reforms enacted by state legislatures have not been evaluated to determine their effectiveness. Concerning scholarship and loan repayment programs, the study found only 20 percent of programs have some kind of report that documents program effectiveness although another 20 percent are planning evaluations. Concerning medical education reforms, only 10 of the 34 states have produced acceptable evaluations of recent state-directed or multi-institutional medical education reform initiatives. Most state laws carry no appropriation to evaluate, nor do they contain measures to enforce a new program's effectiveness. It is urged that some measure of accountability be demanded of programs, to help state legislators as they set priorities for short- and long-term issues, solutions, and allocation of funds. Supporting data appear in tables and figures. Appendices include: the survey questionnaire, a directory of programs, National Health Service Corps (NHSC) reporting requirements, legislation, and other compilations. (BF)

Evaluation of State Efforts to Improve the Primary Care Workforce

Scholarship/Loan Programs and Medical Education Reforms

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by
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CONTENTS

Figures

EXECUTIVE SUMMARY

The role of state government in supporting the education and training of health professionals is well established. Traditionally, states have supported loan and scholarship programs for medical students and physicians in training and, for almost 50 years, most states have provided some level of financial support for medical education.

This two-part report examines the extent to which performance evaluations exist for these two state strategies to determine whether they improve the supply of primary care professionals, particularly in medically underserved areas, and whether these evaluations have been useful to state policymakers. Part I examines efforts to evaluate state scholarship and loan repayment programs, and Part II reports on evaluations of state medical education reforms.

This study found that most scholarship and loan repayment programs and other medical education reforms enacted by state legislatures have **not** been evaluated to determine their effectiveness.

Scholarship and Loan Repayment Programs. Most state legislatures do not require scholarship and loan repayment programs to be evaluated. About three-fifths of the 111 programs identified have not conducted or are not planning to conduct an evaluation in the near future. Most officials of these programs reported that the programs are either too new or lack the resources—time, staff and/or money—to conduct such evaluations. Only one out of five programs have some kind of report that documents its effectiveness. The states with program evaluations include: Arizona, Arkansas, Delaware, Georgia, Idaho, Illinois, Michigan, Nebraska, New Jersey, New York, Oklahoma, Tennessee, Texas, West Virginia and Wisconsin. Another 20 percent of the programs are planning evaluations in the near future.

Medical Education Reforms. Most medical education reforms enacted by state legislatures also have not been evaluated. While 34 states passed laws between 1985 and 1993 requiring various institutions to implement medical education reforms, officials from just 10 of those states produced acceptable evaluations of recent state-directed or multi-institutional initiatives. Most of these evaluations were conducted very recently, and thus little is known about whether they have had any impact on medical education funding or other program changes.

Despite the significant action taken by state legislatures in the past 10 years to create and improve loan repayment and medical education initiatives, much less attention has been placed on ensuring that these initiatives are effectively monitored and evaluated. Most laws carry no appropriation to evaluate nor contain measures to enforce a new program's effectiveness, therefore providing the state minimal evidence of its success. Thus, based on

the study's findings, the authors recommend that state legislatures or health departments require evaluations to be conducted of these initiatives on a routine basis to ensure accountability.

1. State Scholarship and Loan Repayment Programs

Rationale and Purpose

Recruiting and retaining a sufficient number of primary care providers in medically underserved rural and inner cities is a significant challenge. Most recently, the U.S. Public Health Service estimates that more than 5,300 additional primary care practitioners are needed to eliminate 2,677 federally designated primary care health professional shortage areas (HPSAs) in order to achieve a ratio of one provider for every 3,500 citizens.

For nearly 25 years the National Health Service Corps (NHSC), and in the past 10 years numerous state scholarship and loan repayment initiatives, have attempted to remedy this problem by placing primary care providers in needy areas. These federal and state programs offer scholarships and financial assistance for educational loans and debts in return for the recipient agreeing to practice in designated geographic areas that are underserved and in designated specialties of care (most often primary care) for a specified time period.

Recently, state legislatures have enacted numerous laws to create and improve scholarship and loan repayment programs. In 1995 alone, five states established new programs, two states appropriated additional funds, two states toughened obligation service standards, and seven states made administrative or minor adjustments to their programs.

Although states have most often used scholarship and loan repayment programs as the strategy for increasing the number of primary care providers working in underserved areas, these programs in general have been criticized because many health care providers do not remain in HPSAs beyond their service obligation. Why is this so? Are these initiatives being evaluated to determine their effectiveness? Given tight state budgets, are state legislatures making these programs accountable by mandating outcome data as a condition of appropriations?

This assessment of state loan repayment and scholarship programs was conducted to:

- Document the existence of various state funded scholarship and loan repayment programs;
- Determine the extent to which they are being evaluated; and
- Identify lessons to be learned from evaluations of the various programs.

The study focuses on program evaluations because the effectiveness of these state scholarship and loan repayment programs is largely unknown. Though these programs have recruited health professionals to underserved areas, it has been difficult for states to determine if these professionals are practicing in these areas beyond their service obligation without the benefit of effective monitoring and evaluation.

Methodology

Researchers sent a brief questionnaire to all administrators of state scholarship and loan repayment programs for primary care students who were identified by the Association of American Medical Colleges in its October 1995 publication, *State and Other Loan Repayment/Forgiveness and Scholarship Programs, Second Edition.* The administrators were asked the following:

- To identify all state supported scholarship and loan repayment programs in the state;
- To provide information on the programs, as well as contact names and phone numbers;
- To report on whether evaluations have been or are planning to be conducted on the programs they identified; and
- To specify the reasons for not conducting evaluations (if applicable).

Researchers learned from program administrators about other such programs in the state and sent the same questionnaire to those administrators identified by their colleagues. Thus, researchers relied upon information first from the Association of American Medical Colleges and then program administrators to identify state scholarship and loan repayment programs and provide certain programmatic information. (See Appendix I-A for a copy of the questionnaire.)

For those programs that had been evaluated, administrators were asked to mail the evaluation to researchers for further study. The term, "evaluation," was defined broadly to mean any report or document that describes the progress or effectiveness of state-supported scholarship and loan programs in improving access to primary care in medically underserved areas.

After reviewing the evaluations, researchers interviewed 14 administrators in 13 states—Arizona, Arkansas, Delaware, Idaho, Illinois, Michigan, Nebraska, New Jersey, Oklahoma, Tennessee, Texas, West Virginia and Wisconsin—to learn more about the evaluation process. For all of these states, except Oklahoma and Texas, each administrator only talked about one program evaluation. In Oklahoma, the administrator was interviewed about the evaluations of three state programs. Two administrators were interviewed in Texas because the programs are managed by two different offices.

Researchers asked program administrators:

- When the evaluations were first conducted;
- The reasons for conducting the evaluations;
- What information was collected;
- The data collection systems used;
- The cost and personnel needed to conduct the evaluations;
- The frequency with which the evaluations are updated;
- The usefulness of the evaluations; and
- Their advice to other program administrators.

Researchers achieved a response rate of 100 percent. After much persistence, researchers corresponded with administrators from the statewide programs by sending them two mailings, making two sets of follow-up phone calls and interviewing those administrators that had conducted evaluations.

However, there were significant constraints to conducting this study. First, researchers experienced great difficulty in identifying all of the state scholarship and loan repayment programs because of their large numbers and the different agencies that administer them throughout the states. Therefore, researchers are only certain that 111 state scholarship and loan programs are in operation. Second, researchers experienced further difficulties determining the years that the programs had been in operation given that many of the programs were created a year or two before they actually became operational. Again, researchers relied on the Association of American Medical Colleges and, in certain cases, on program administrators to provide this information. Third, researchers depended on program administrators to determine if they had conducted an evaluation. For some programs, there is a fine line between an evaluation and statistics on program participants. Thus, though this study finds that few state legislatures require programs to be formally evaluated, many program administrators collect data on program participants but do not publish this information in a formal report.

General Findings

1. State scholarship and loan repayment programs are a relatively new yet widespread initiative.

At least 111 state-supported scholarship and loan repayment programs exist in 47 states. (See Appendix I-B for a directory of the programs.) A variety of state agencies administer these programs which receive state funding often in combination with federal and local funds. Nine statewide programs (out of the 111), however, receive no state funds. Their funding is as follows:

- California State Loan Repayment Program: federal and nonprofit funds;
- Colorado Health Professions Loan Repayment Program: federal and community funds;
- Florida Nursing Loan Forgiveness Program and Florida Scholarship Program: licensure fee funds;
- Rural Kentucky Medical Scholarship Fund and Establish Practice Grant Program: private foundation funds;
- Montana Rural Physician Incentive Program: trust fund from student fees;
- Tennessee Health Access Incentive Program: unclaimed property funds; and
- West Virginia Medical Student Loan Program: medical student fees.

These programs are included in this study because all of them, except Kentucky's, are administered by state agencies and serve a statewide audience. The programs in Kentucky are included because they are statewide programs with many of the same features as other state scholarship and loan repayment programs.

State legislatures have played an integral role in creating and appropriating state funds to these programs within recent years. Over the past 10 years, states have moved away from supporting traditional scholarship programs, which have appeared to many lawmakers less effective in increasing the supply of primary care physicians in underserved areas. Instead, most states have a larger commitment to loan repayment programs that require an immediate service commitment in a HPSA in exchange for a school loan. In addition to physicians, these newer programs are targeted toward nurses, physician assistants and other

providers that are needed in HPSAs. For these programs, providers typically must practice in HPSAs one year for every year a loan is received.

Most of these state scholarship and loan repayment programs are young. More than half of the programs (63) have been in operation for 5 years or less, and over three-fourths of them (87) are just 10 years of age or younger.

Table 1

State Scholarship and Loan Repayment Programs by Years in Existence

Years in Existence	Number of Programs
1 - 5 years	63
6 - 10 years	24
11 - 20 years	9
21 - 30 years	5
31 - 40 years	0
41+ years	5
Information Unavailable	5
TOTAL PROGRAMS	111

2. Though scholarship and loan repayment programs among the states share the same goal, they differ in terms of funding, program size, organizational structure and administration.

All state scholarship and loan repayment programs aim to increase the number of providers practicing in shortage areas. However, it is challenging to identify each state scholarship and loan repayment program because different agencies administer the programs. Higher education boards, universities and rural health offices typically administer the programs, but this is not always the case. In a few states, state medical associations, Area Health Education Centers (AHECs) and various units within health departments oversee the programs. There is not one central, unquestionably complete directory of these state programs available to students who want to apply for these loans and scholarships.

In each of the 47 states, there are one to six different scholarship and loan repayment programs. Most states have multiple programs with varying organizational structures. Some of these programs are administered by one central state office while, in other states, each program is run individually by different offices. Eligibility requirements, the size of the programs and various other program characteristics also differ.

Though funding can range from state-only funds to money collected from private foundations, state agencies typically administer these programs and provide much of the funding. Over one-third (41 of the 111 programs) receive federal funding from the National Health Service Corps. The NHSC provides federal funding to 12 Community

Scholarship Programs and 29 State Loan Repayment Programs which are also funded by matching state funds. For the NHSC community scholarship program, states and communities must provide 60 percent of the funding. States must provide 50 percent of the funds under the NHSC loan repayment program.

Table 2

Characteristics of State Scholarship and Loan Repayment Programs

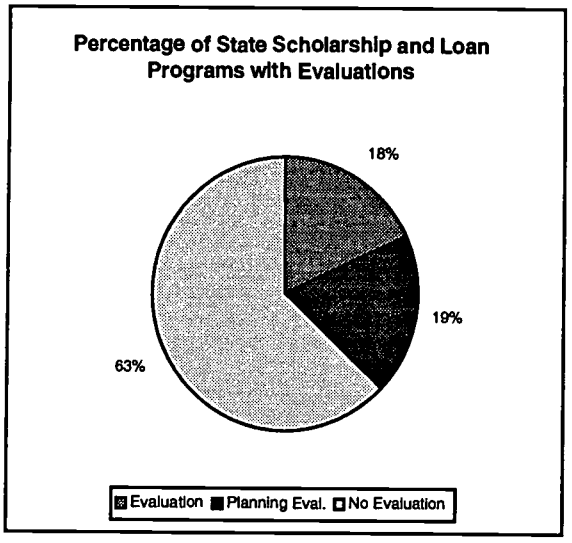
Sources of Funding	State only; combination of state, federal, or local; nonprofits; licensure fees; private foundations; trust fund from student fees; unclaimed property
Funding from NHSC	41 programs
Administrative Offices	Universities, higher education boards, rural health offices; state medical associations, AHECs; various units within health departments
Size of Programs	Varies

3. Most state legislatures do not require scholarship and loan repayment programs to be evaluated.

Though state legislatures have typically created these programs in state legislation and appropriate money to them on an annual or bi-annual basis, relatively few states have built accountability measures into these programs.

Less than one out of five programs (20 out of 111) have some kind of report that documents its effectiveness. (See Appendix I-C for a table outlining the programs and whether they have been evaluated.) However, roughly another 20 percent are planning a program evaluation in the near future. Though some of these administrators did not specify an exact date of completion, most did indicate that their evaluations would be completed within the next 12 months.

Figure 1



In contrast to most states, the federal government requires scholarship and loan repayment programs that receive federal funds to be routinely evaluated. The NHSC requires the 41 programs that receive federal funds to file quarterly progress reports, as well as annual grant applications, as a condition of receiving money. Seven of these programs file quarterly progress reports with the NHSC and conduct additional evaluations either by their own accord or by state requirement or request.

The NHSC is required, by law, to submit this information annually to the U.S. Congress. The reporting requirements include the following data elements:

- Information on rural and urban federally designated HPSA placements;
- Number and amount of grants to community organizations or participants by year;
- Number of scholarships or loans by discipline;
- Participants' educational institution;
- Length of contract; and
- Breaches of contracts and the basis of decision for those who have breached contracts.

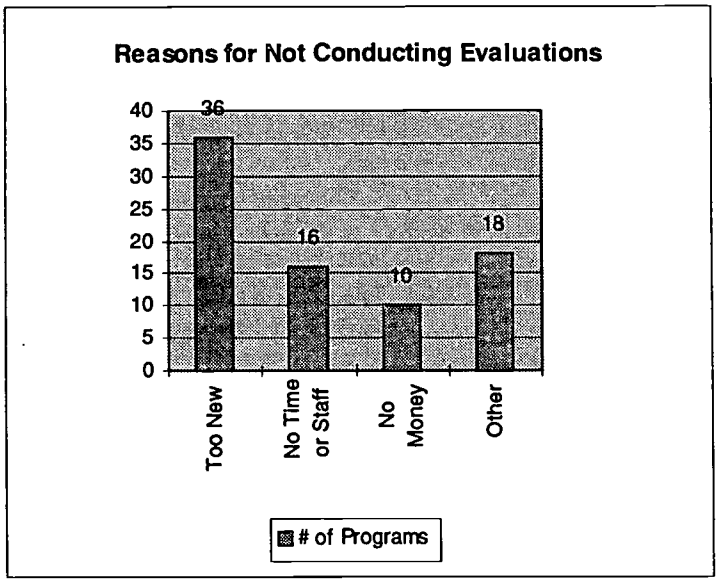
This data is reported in the aggregate, instead of on a program-by-program basis. Little of this information is believed to be shared with state legislatures.

Though the NHSC collects a rich body of data from these programs, it does not require the programs to collect data on provider retention. The programs that receive NHSC funding are not required to track the providers after their service obligation ends to determine if and how long they practice in the HPSA.

4. About three-fifths of the programs either have not conducted or are not planning to conduct an evaluation in the near future. Administrators report that, for the most part, these programs are either too new or lack the resources—time, staff or money—to conduct such evaluations.

The most common reason reported by program administrators for not conducting a meaningful evaluation was that their programs had not been in operation for a sufficient period of time. A significant indication of a program's success is its provider retention rates. Retention rates are a measurement of providers' length of practice in a HPSA.

Figure 2



It can take at least 10 years to collect accurate retention rates on physician participants given that obligations often commence with their acceptance of educational loans during their training period and end with a practice obligation typically two to four years in length. (As noted, three-fourths of the programs have been in existence for 10 years or less.) For example, a program administrator first must wait for the recipients to matriculate from medical school. Then, recipients must finish their residencies and, finally, their service obligation in a HPSA before the state can begin to determine if and for how long the providers remained in a HPSA beyond their obligation.

The second most common reason reported for not conducting an evaluation was a lack of resources—a lack of time and staff, a deficiency of funds, or a combination of both. After corresponding with program administrators across the country, researchers found that programs generally are run by only one or two people who "wear many different hats." They often have other responsibilities in addition to running the scholarship and loan

repayment programs which vary according to where they work. For example, the duties of rural health officials vary from those who staff higher education boards. In addition, many of the programs run on "shoe string" budgets. Most of the money goes toward student scholarships and loans leaving very little for administrative support.

Some less common responses for not conducting an evaluation include the following:

- Several administrators keep statistics on their programs' recipients but have not published these data in any kind of report;
- Seven programs have too few participants to warrant conducting an evaluation;
- Funding for one program was recently discontinued. As a result, one program administrator plans to conduct an evaluation in the hopes that it will demonstrate the program's effectiveness and funding will be reinstated; and
- Another state official who administers five programs reported that the state is examining the programs to determine if they are meeting the state goals. However, she is not planning to collect any data to measure the programs' effectiveness.

5. The evaluations vary greatly in their level of complexity, length and presentation.

Researchers identified 15 states with 20 evaluated programs. These states include: Arizona, Arkansas, Delaware, Georgia, Idaho, Illinois, Michigan, Nebraska, New Jersey, New York, Oklahoma, Tennessee, Texas, West Virginia and Wisconsin. Researchers were unable to collect evaluations from two of the states—Georgia (two programs) and New York (one program). Thus, researchers collected evaluations on 17 programs in 13 states that had conducted evaluations.

Table 3

Evaluation Characteristics and Intended Audiences

Evaluation Report	State/(number of Programs Evaluated)
Informal document of survey or study results department or both	Idaho (1), Michigan (1), Oklahoma (3), Texas (1), West Virginia (1), Wisconsin (1)
Formal report to state legislature, health	Arkansas (1), Illinois (1), New Jersey (1), Tennessee (1)
Formal broad rural health report to the governor and state legislature	Texas (2)
Program Authorization Review to the governor and state legislature	Arizonia (1)
Primary Care Committee report to a state legislative health care committee	Delaware (1)
A formal report for strictly internal purposes	Nebraska (1)

The complexity of these evaluations ranged from documenting just a few data elements to producing formal reports that were the result of months of work. The length of evaluations ranged from one page to more than 100. About half of the documents were very informal, simply presenting the data (eight programs), while the other half of the program reports were

more formal and produced for distribution (nine programs). In addition, they were written for different audiences that include state legislatures, governors, health departments and the administrator's office, or some combination of these audiences.

Recommendations from Program Evaluations

In addition to collecting evaluations, researchers also interviewed program administrators about the impetus for, the process of, and the outcomes from the evaluations. Based on advice from program administrators and findings from this study, the following recommendations are offered. (See Appendix I-D for write-up of these interviews.)

1. State legislatures or health departments should require administrators to conduct evaluations to ensure program accountability.

The majority of programs—13 out of the 17 programs surveyed—conducted evaluations because they were required to either by legislative mandates or by requirements or requests of health departments. Two of the four remaining programs performed evaluations because they had access to student interns who helped conduct the evaluations. One evaluation was requested by a university vice chancellor, and the other evaluation was conducted because of the program administrator's professional conviction about the issue.

Given tight state budgets, state officials need to know that they are appropriating money to programs that are working. Without annual evaluations, it is difficult to determine if these programs are alleviating health care needs in the greatest number of shortage areas.

A 1994 case study by the University of North Dakota Rural Health Research Center came to a similar conclusion. By examining scholarship and loan programs enacted before 1981 in 10 states, the author found that only four of the 10 state programs monitored retention rates. The author recommended that more states research retention issues and develop rural health profession policy that gives equal treatment to both recruitment and retention.[1]

2. A program is never "too new" to be evaluated.

A common misconception is that a program must be operational for many years before meaningful data can be collected. About one-third of all program administrators reported that they had not conducted an evaluation because their programs were too new since it often takes programs at least 10 years before retention data can be collected .

In contrast, most of the programs that had been evaluated were assessed before they had a significant number of providers who had completed their service commitments. More than three-fourths of the programs—13 out of the 17 surveyed—were first evaluated within 10 years of operation. Though retention rates are important, program evaluations need not be restricted by this measurement.

These "younger" programs collected some of the following data:

- A listing of students receiving new and continuing scholarships;
- Where participants were raised and where they plan to be practicing (rural versus urban areas);
- Expenditures and fiscal history of program;
- Number of scholarships by public and private medical schools;
- Ethnicity and gender of recipients;

- Number of academic failures; and
- Loan recipients' perceptions of the importance of the program in deciding to practice in HPSAs.

Table 4

State Scholarship and Loan Repayment Programs by When They Were First Evaluated

Years Before First Evaluated	Number of Programs
1 Year	7
2 - 5 Years	4
6 - 10 Years	2
11+ Years	4
Information Unavailable	3
TOTAL PROGRAMS	20

3. Program administrators should examine the data gathered by other state scholarship and loan programs and the NHSC to determine what information would be most useful to collect.

Though there is much variance, most scholarship and loan repayment programs attempt to collect information on:

- Provider practice location and specialty;
- Length of time in obligation; and
- Retention status in terms of those who default, those who fulfill their obligation, and those who stay in the HPSA beyond their obligation period.

As noted, retention rates often are the goal of state program evaluations. Of the 17 evaluations that researchers collected, eight of them reported on program participants' retention rates, i.e. the number of participants who practiced in the HPSA past their obligation period. These state programs include Arkansas, Texas, Tennessee, Oklahoma, Nebraska, Illinois and Michigan. The program administrator in Oklahoma collects retention data on two programs, whereas retention data are collected on just one program in each of the other states.

Some other data reported in the evaluations include:

- Where participants were raised and where they plan to be practicing (rural versus urban areas);
- New programs participants have implemented in their communities;
- The communities' thoughts on the program's responsiveness to inquiries, and the communities' willingness to write to legislators in support of more funding for the program;
- Students receiving new and continuing scholarships;
- Expenditures and fiscal history of program;
- Number of scholarships by public and private medical schools;

- Ethnicity and gender of recipients;
- Type of high school of those serving beyond obligation;
- Academic failures;
- Monetary repayment;
- Number of buyouts by school;
- Number of recipients still practicing in state;
- Comparisons of location of residency to retention in obligated service areas;
- Practice sites;
- Patient and practitioners' satisfaction with the program;
- Provider sensitivity to community needs;
- Recipients' previous exposure to underserved area and other factors influencing practice in such settings;
- Amount of loan; and
- Current patient workload.

In addition to looking at program evaluations from other states, program administrators should examine some of the reporting requirements of state community scholarship and loan repayment programs that receive funds from the NHSC. The reporting requirements are contained in four separate sections of the current statute and are reported annually to the U.S. Congress. (See Appendix I-E for NHSC's reporting requirements.) The NHSC's reporting requirements can serve as a baseline for some uniform data collection efforts for those programs not receiving federal money.

4. Evaluations can be conducted effectively with limited resources.

The cost and personnel needed to conduct evaluations depends on whether they are conducted internally or by an independent entity. Most program administrators—15 out of 17 surveyed—conducted their evaluations using in-house resources and staff. One program was reviewed by a legislative task force, and another hired an independent research firm to conduct the evaluation.

Of those evaluations conducted in-house, three-fourths of them evaluated their own programs within one day to two weeks. For the most part, administrators surveyed program participants by phone or mail and then entered the data into a data base or spreadsheet. Only two programs used already existing data bases to collect data on their recipients. These evaluations were conducted economically because administrators were able to simply update the information from the previous year's report. In most cases, program administrators were even unable to determine the costs associated with the evaluations because they used internal resources.

For those administrators who either used independent consulting firms or planned to use one, the costs and time were much greater. For example, New Jersey's program contracted with an outside firm to conduct its evaluation which was completed in eight months at a cost of $10,000. Tennessee's program plans to contract with a state university for $30,000 to perform an evaluation of its program directed at physician assistants and advanced practice registered nurses.

5. Programs should be evaluated on a routine basis.

It is crucial for program administrators to recommend improvements to the program based on good, up-to-date information. Annual surveys will not only record a rich history of the program but also will ensure that the information is current. About half—9 out of 17—of the programs are evaluated on a regular basis. Six are evaluated annually, two bi-annually and one on an ongoing basis. The other half of the programs are evaluated either subject to

the availability of funds or on an irregular or multi-year basis. The program in Delaware was evaluated on a one time basis by a legislative task force.

6. Evaluations have proved to be valuable.

Nearly all program administrators—16 out of 17—reported that the evaluations were very useful. These administrators cited that their program evaluations led to the following outcomes:

- A justification of the programs' existence and demonstration of their effectiveness;
- An increase in program funding,
- Anecdotes to state legislators on the programs' value,
- Recruitment of new participants by providing data on prospective sites,
- Recommendations for improving and restructuring the programs;
- An expansion of programs' roles and focus;
- A move and consolidation of administrative offices; and
- Establishment of a trend line to compare and contrast program characteristics across time.

7. Evaluation efforts of programs in two states—Illinois and New Jersey—serve as innovative models.

The scholarship and loan repayment programs in these states share a common mission—to increase the availability of primary care services in underserved areas. These programs were also required to be evaluated to determine whether this mission is being met. Otherwise, these programs and their evaluation processes have very little in common. Thus, evaluations of these two state initiatives serve as models to demonstrate the great variance in program evaluation and to highlight the strengths of the different types of evaluations. (See Appendix I-F for more details.)

Illinois[2] was chosen for collecting consistent, extensive data, including comprehensive retention data, over the past 11 years. The program administrator collects retention data by the number of providers who practice beyond the requirement, the number of years served beyond the requirement and the practice location and type of high school of those serving beyond obligation.

New Jersey[3] on the other hand, was chosen for investing the resources to hire an independent, unbiased research firm that collected comprehensive information through site visits, interviews with program participants and members of the communities and discussions with program staff and state agency officials. Though these programs were evaluated quite differently, both evaluations led to or are in the process of leading to improvements in the program and justification for state funding.

8. In evaluating program effectiveness, state administrators and legislators need greater opportunities to learn about other state scholarship and loan repayment programs.

Although state legislators are responsible for appropriating funds to the majority of state scholarship and loan repayment programs, many of them have not had the opportunity to learn about the successes, pitfalls and merits of their own programs as well as those of other states. State legislators could benefit from educational opportunities about these programs and other medical education programs in the state aimed at alleviating HPSAs.

Table 5

Comparisons of Program Evaluations in Illinois and New Jersey

Categories	Illinois	New Jersey
Program Name(s)	Medical Student Scholarship Program	Primary Care Physician and Dentist Loan Redemption Program
Year Program Became Operational	1978	1992
First Evaluation	1984-1985 academic year	Program in existence for two years when first evaluated.
Reason for Conducting Evaluation	Legislative mandate	Health department evaluated many programs, including theirs.
Information Collected	Students receiving new and continuing scholarships; expenditures and fiscal history of program; number of scholarships by public and private medical schools; ethnicity and gender of recipients; retention rates; recipients' medical specialty and geographic distribution; recipients' practice location; type of high school of those serving beyond obligation; academic failures; monetary repayment; and number of buyouts by school.	Recruitment; best practices from programs in Connecticut, Florida, Louisiana, Massachusetts, Maine, Maryland, New York, Texas and Washington; practice sites; patient and practitioners' satisfaction with the program; provider sensitivity to community needs.
System of Data Collection	Use Data Ease software and mail surveys every six months on prepared forms to track students, residents and those in practice.	Used outside research firm, MRH Evaluations, to conduct study.
Cost and Personnel Time	Two weeks; $$ unknown	Roughly $10,000; Eight months
Frequency of Updates	Annually—every March	Subject to the availability of funds.
Outcomes	The evaluation has given us confidence in that we can demonstrate the effectiveness of the program with hard numbers.	Recommendations from the evaluation were incorporated into a proposal to the governor.

WAMI Conference

The annual WAMI conference may serve as a model for designing regional conferences in which to educate legislators about the HPSAs in their states and efforts to eliminate them. WAMI, an acronym denoting the states: Washington, Alaska, Montana and Idaho, is a regional education program of the University of Washington School of Medicine. Medical students from these states, plus the newcomer, Wyoming, attend the University of Washington medical school, but spend their first year at an in-state university. The curriculum at each site is similar to and compatible with the University of Washington curriculum.

For at least 15 years, WAMI has held annual conferences to promote group discussions among legislative and other participants to explore opportunities for future growth and the educational direction of WAMI. This year, 145 people attended the day and a half conference, 65 of which were state legislators (roughly 13 to 15 legislators per state). Participants for whom all expenses are paid are chosen by program administrators in each of the five Northwest states. During the conference, participants are updated on WAMI, and individual state meetings are held.

A half day is devoted to open discussion from conference participants in order for the legislators to truly understand the program's impact on their state. Each participant receives a notebook with state specific evaluations that include information on the number of health care providers returning to their home state, the number of out-of-state residents doing clinical practice in state, the cultural background of students, the geographic location of students' hometowns and the number of graduates in rural practice. General information on the University of Washington medical school, as well as contact names and phone numbers, are also included in the conference packets.

The success of this legislative conference can be a model for promoting informed decision making in state legislatures about medically underserved areas. State legislators who hold the purse strings to these programs must understand them and their evaluations in order to enact legislation to eliminate, enlarge or modify these programs when necessary.

Program administrators could also benefit from such conferences. Administrators seem to know other program administrators in their own state, but have little or no contact with those outside of their state. A recent conference of state and NHSC officials was an important occasion to establish a dialog regarding the positive and negative aspects of the programs and report on program outcomes, including recommendations on how to enhance the programs to ensure continued success. This type of meeting, or perhaps smaller regional meetings, should be replicated to give other program administrators a chance to talk with each other.

When asked about this idea, nearly all administrators saw a multi-state meeting as a great opportunity to develop a network and learn from other program administrators' experiences, as well as lessons that they have learned from conducting evaluations. The biggest obstacle, however, is travel funds. Most of the administrators have little or no travel funds available. Thus, travel scholarships would have to be made available.

9. Program administrators have learned important lessons based on their program evaluations.

Researchers asked program administrators what advice they would give other administrators based on their program evaluations. Though much of this information has already been provided, below is some further advice:

- Think about who wants to know what and what information is useful before you evaluate the program.
- Put in place a user-friendly, manageable data base to track students, so anyone can use it. Include a comments section in the evaluation. Over time, many of these programs may be managed by different program administrators.
- Talk to program participants on a regular basis. Although phone surveys are more costly and time consuming, participant interviews are useful for gauging the feelings of the program's influence on training and practice locations. Those program administrators who conducted phone interviews stressed the importance of talking to program participants, as well as site coordinators in the communities being served.
- Keep surveys simple and consistent to ensure that results are easily comparable with previous and future evaluations. Keep good records throughout the years, so the evaluation can be easily updated.
- Having students conduct the evaluations is one of the most cost-effective options. This option is viable particularly for those programs located at universities.

2. STATE MEDICAL EDUCATION REFORMS

Rationale

Traditionally, state support for medical education takes the form of some or all of the following: 1) operating subsidies to teaching hospitals and clinics; 2) direct support of clinical education programs such as residencies, internships and preceptorships (and of Area Health Education Centers in some states); and 3) Medicaid reimbursement to hospitals for certain teaching costs. Appropriations are often not separately identified, and several states have found it difficult to isolate service reimbursement from clinical education payments under Medicaid. Many states provide specific funds for graduate training in family medicine and other primary care specialties. In recent years, at least six states have appropriated more than $5 million annually for these programs. This strategy is often seen by legislators as solving problems of rural access to physicians. States annually provide nearly $3 billion in appropriations and $1 billion to 2 billion in Medicaid payments to health professions training programs and teaching hospitals.

Educating physicians for primary care practice has recently become a high priority in many medical schools. Several states have been major supporters of this trend by placing greater pressure on state-supported schools to train more generalists. These states are modifying various forms of educational support and financial incentives for students and residents in the hope of shifting the balance between primary care and specialty practice.

These changes come at a time when states have been forced to scrutinize their support for medical education and teaching hospitals. In the late 1980s, most states began experiencing major fiscal problems. State dollars as a *proportion* of medical school budgets have declined, despite a near doubling in the past 15 years in the *amount* of state funds that the institutions receive. Some states, perceiving an oversupply of physicians, reduced their support for medical education. During this period, medical schools became increasingly dependent on patient care revenues.

Also, state Medicaid programs have rarely agreed to provide reimbursement for the additional costs of teaching in ambulatory sites. For most ambulatory education programs that train primary care residents, care is provided to large numbers of Medicaid and indigent patients. Typically, these sites earn no additional revenues from Medicaid to cover teaching costs, which makes it difficult for many programs (e.g., HMOs) to be competitive. At the same time, states have had mounting concerns about the maldistribution of primary care physicians and the unmet needs of many rural and inner-city areas. Physician shortages in these communities persist and, in some areas, have worsened.

Increased efforts by states to pressure medical schools and teaching hospitals to train more generalist physicians are designed to: a) achieve some congruence between the public need and existing supply of physicians, and b) more carefully account for all state contributions to medical education. To this end, states have implemented or are considering implementing the following strategies:

- **Establishing family practice training programs.** At least 13 states have passed legislation that specifically encourages or mandates the creation of departments of family medicine or other family practice training programs in state-supported schools.
- **Targeted appropriations.** More than 40 states have created special grant programs for family physician training, and about half of the states specify appropriations for family practice education. The amount and scope of these appropriations continue to wax and wane.
- **Outcome-based measures.** A half-dozen states have enacted laws linking education funding to specific and measurable outcomes focusing on the specialty mix of graduates and residents trained. Typically, schools in these states are required to prepare a plan with the goal of training a large proportion (typically 50 percent) of their graduates in primary care by a certain date without additional state funds.
- **Reforming curricula and emphasizing community-based education.** States are increasing the number of required and elective clerkships, rotations and other clinical training arrangements, typically in community-based settings, for generalist-minded medical students and residents. The Texas Legislature requires all third-year medical students to complete a clerkship in family medicine.
- **Preferential admissions and early intervention in secondary schools** to encourage health careers for minority students and students from underserved communities.
- **Medicaid payment under managed care for graduate medical education.** Despite budget pressures, a few states adopting Medicaid managed care programs have maintained and in some cases improved the integrity of GME support by channeling such funds directly to teaching institutions. Tennessee has opted to pay the medical schools directly thereby encouraging greater training of primary care professionals in community-based settings. Other states are considering reorienting their Medicaid GME payments toward primary care as they implement managed care.
- **Create or expand support for advanced practice nursing and physician assistant training.** Currently, just a handful of nurse practitioner and physician assistant training programs receive any significant state funding for operational support. In general, just half of all NP programs receive any grant support beyond student tuition payments. Many of these programs are struggling to attract faculty, establish training sites and remain financially viable.
- **Create or increase stipends for primary care residents and preceptors.** As many generalist training programs attempt to educate more students and residents in community-based settings with few resources, there is often an increased reliance on the use of community preceptors. Often, these providers are asked to volunteer their time.
- **Earmarking practice plan and tuition revenues for generalist training.** At least one state, Kansas, mandated an outside study to look at the efficiency of the state medical school's practice plans and their relationship to the teaching hospital. Many of the primary care training programs in the state, as elsewhere, are experiencing significant financial difficulty and could benefit from a reallocation of plan revenues generated mainly from specialty departments.

Purpose and Methodology

Several states have enacted legislation in recent years instituting one or more of the above strategies to reform medical education. (See Appendix II-A.) Between 1985 and 1993, 34 states passed laws requiring various institutions to implement these strategies. The most commonly enacted strategies were to create or expand community-based family practice residencies and otherwise to expand community-based clinical training in medically underserved areas.

In the summer of 1996, various officials in these 34 states were surveyed by mail to determine whether, and to what extent, any or all strategies enacted in their state had been evaluated. Even though many of these strategies had only been enacted within the past five years, it was hoped that at least a few of the states had attempted to evaluate early performance. Given the low number of states expected to have performed evaluations and provide such information, summaries of a select number of these state evaluations will be presented as case studies.

This study has adopted a broad definition of evaluation, accepting any written effort to document or analyze significant trends and progress in a program's implementation. While some individual training institutions have conducted evaluations of their own efforts to reform medical education, this study is mainly interested in reviewing and describing evaluations of multi-institutional or state-directed initiatives to improve medical education. It is thought that such evaluations are likely to harbor less bias toward a particular training program or institution's interest or mission and be viewed more favorably by state legislators and other health officials.

Findings

To date, most medical education reforms enacted by state legislatures have not been evaluated. Of the 34 states surveyed, various officials from 10 states provided copies of acceptable evaluations performed of recent state-directed or multi-institutional initiatives to reform medical education.

The most common strategy that was the subject of the evaluations was state support for community-based family practice residencies. (See Appendix II-B.) The most frequently collected types of information used to perform the evaluations was trend data on student interest in family medicine; graduate totals in family medicine in relation to current supply and need; graduate placement and retention rates in underserved communities; and state residency program funding.

Most of these evaluations were performed very recently and thus little is known about whether they have had any impact on medical education funding or other program changes.

Summaries of Evaluations in Four States

The content and structure of these evaluations are very different and the information collected for them does not easily allow for the tabulation of simple comparisons.

Therefore, specific findings associated with each state's evaluation are presented in a case study format. Evaluations performed of medical education reforms in four states (Illinois, Kentucky, South Dakota and Texas) were selected because these cases either reflect a history of strong state interest in the success of medical education reform or the evaluations themselves, although not academically rigorous, are well focused, clearly interpretable, and perhaps of greater pragmatic benefit to interested state legislators.

Illinois

Rural/Downstate Health Act

The Illinois legislature began to address the need for new primary care training programs as early as 1985. That year a law created rural rotations in which medical residents would be allowed to receive some training in a rural setting. In 1992, the legislature amended the Rural/Downstate Health Act to require the Center for Rural Health to cooperate with the University of Illinois' efforts to address health care needs of downstate residents. Such cooperative efforts included developing innovative educational strategies to graduate primary care physicians. In requiring the university to expand its efforts to enroll and train more primary care physicians, the law obligates both the undergraduate and graduate primary care training programs to increase education and service initiatives at satellite sites in rural underserved and health professional shortage areas.

A resolution that passed the legislature in 1993 called for the creation of a special joint task force to analyze family physician shortages in the state. The task force was required to review the state's family practice training programs and to make recommendations to increase funding of these programs and the number of family physicians trained. The task force's report to the governor and legislature was completed in early 1994 as part of a larger report by the Illinois Health Care Reform Task Force. The report's broad recommendations on medical education reform include several suggestions for encouraging more community-based training. These include:

- Ensuring a mechanism is in place to better tie state medical education funds directly to the state's needs for health care providers;
- Ensuring that curricula provide students and residents with a balance between hospital-based, subspecialty training and community-based primary care training, with a greater proportion shifted to ambulatory settings;
- Establishing and maintaining a community-based infrastructure that supports medical education and meets local needs for health personnel;
- Expanding AHECs to underserved communities to coordinate and support primary care education at the community level;
- Creating community-based networks to provide training for local providers to serve as community faculty;
- Requiring residents to train at community health centers;
- Providing direct and indirect GME funding to nonhospital, community-based sites for all training-related costs from a state pool to which all payers would contribute. Rural training sites should receive preferential funding under Medicaid; and
- Requiring medical schools to actively develop relationships with rural providers and to attempt to match graduates with rural practice sites.

At least part of the report's recommendations have been considered by the legislature. A 1994 law further amended the Rural/Downstate Health Act by requiring the Department of Public Health to establish a service-education program to improve the supply of primary

care professionals in underserved areas. The program involves the state's area health education centers.

Studies on Medical Education

In 1995, the legislature created the Primary Care Medical Education Advisory Committee. The committee is charged with coordinating and evaluating the activities of three distinct state agencies that fund medical education in the state and advising the legislature about the most appropriate ways to distribute state medical education funds. Subsequent to, but separate from, this decision, one of three state agencies—the Department of Public Aid—made the decision to discontinue support of graduate medical education through Medicaid due to a budgetary crisis, and the $200 million it provided to teaching hospitals in 1995 was not available in 1996. (Illinois is only one of two states that currently do not support graduate medical education under Medicaid.) In early 1996, the Illinois Academy of Family Physicians issued a report evaluating state efforts to finance graduate medical education and recommended that the Advisory Committee address several reforms the state should institute. The Advisory Committee continues to meet, but as yet has not produced a report detailing any evaluations or recommendations.

Also in 1996, the University of Illinois at Chicago released the results of a comprehensive survey of primary care residency programs in the state. The study was funded by the Illinois Board of Higher Education and the Chicago Community Trust. The survey found that the majority of physicians who complete primary care GME programs in the state plan to practice primary care and about half of these remain in Illinois to practice. The GME programs that most successfully recruit state medical school graduates are family practice and obstetrics/gynecology. As is the case elsewhere, the study found that only about 15 percent of training time for residents is spent in physicians' offices (except in family practice where it is 35 percent). There is very little use of community-based training sites.

Kentucky

In 1990, omnibus health reform legislation in Kentucky established a rural family practice residency program and created the University of Kentucky Center for Rural Health, whose mission is to increase the number of health professionals practicing in underserved eastern Kentucky. More recently, as part of another major health reform bill passed in 1994, the legislature ordered the state's two public universities to jointly establish and operate at least six community-based family practice residency programs, one in each of the state's congressional districts. The initiative creates residency slots in community-based sites to accommodate all medical school graduates entering family practice. Participants receive scholarships and, later, stipends and must fulfill a service obligation period of one year in an underserved area for every one year of loan forgiveness. Because many of these new residency programs are to be located in very rural communities, it is expected it will be difficult to recruit both residents and faculty. The state is considering instituting preferred resident stipends and salaries for these sites.

The Center for Rural Health has begun to track and evaluate its progress in graduating primary care professionals and retaining them in eastern Kentucky and other underserved rural areas. To date, of the total graduates in family medicine, nursing and allied health, 76 percent have remained in rural Kentucky to practice and another 3 percent are in rural counties in other states. Of the 216 students admitted to training since 1991, 68 percent are from rural eastern Kentucky and just 9 percent are from outside the state.

A 1994 study of retention patterns of primary care physicians in eastern Kentucky asked a sample of these providers to rank what items were most important to retention. Those items rated the most important were availability of relief coverage, quality of local schools, compatibility with the medical community, availability of quality housing, consultation with a specialist via telephone, and availability of practice partners. There was no specific mention of the resources of the Center for Rural Health as a retention factor.

South Dakota

State funding support for the state's two urban-based family practice residency programs was very controversial in 1995. Conflict existed as to whether it is feasible and more effective for these programs to be based in rural underserved community settings. There was and continues to be a growing concern about the effectiveness of state-sponsored recruitment and retention programs and their competitiveness with similar programs in neighboring states as the number of full-time family physician practice sites continues to decrease in South Dakota.

In 1995, the governor recommended an appropriation of less than half of the amount requested by the residencies. In 1996, the legislature enacted a measure that compromised on a $675,000 appropriation. The law also required a study of residency program funding issues involving the medical school, residency programs and the Department of Health.

Charged with conducting this study, the Governor's Task Force on Improving Recruitment and Retention of Family Physicians made its findings and recommendations available in November 1996. The task force was to determine the appropriate level of state funding for the family practice residency programs, establish a stable funding mechanism, and determine how to maximize state funds to provide incentive for the placement of residency program graduates into rural areas.

After extensive analysis and discussion, the task force recommended that stable funding be achieved by maintaining the 1996 base funding of $675,000 with annual increases. In addition, it was recommended that an advisory committee be created to determine ways to get more state medical school graduates into South Dakota family practice residencies. (Eight of 10 state medical school graduates who choose in-state family practice residencies will remain in the state to practice.) The advisory committee would also assist the Department of Health in determining how to maximize state funds and provide incentives for the placement of providers in rural areas. The task force believed the formation of an advisory committee would ensure that independent professionals continue to review and evaluate on a regular basis those residency training programs that receive state funding.

Texas

For many years, state officials have been concerned about the overall lack of primary care providers and their maldistribution in Texas. Texas ranks below the national average in the number of generalist physicians practicing per 100,000 population and has a higher percent of its population underserved (11.2 percent) than the country as a whole (10.5 percent).

State Legislation Addressing the Primary Care Workforce

In 1987, Texas lawmakers passed a law creating a nine-member "Special Task Force on Rural Health Care Delivery in Texas." The charge of the task force was to: 1) define

minimal desired medical care for rural counties and communities, taking into consideration population, geography, proximity to tertiary care centers, physician manpower and transportation availability; 2) define the resources available and/or needed to provide a voluntary plan to meet the needs of the state's counties, including methods of financing the implementation and operation of such a plan; and 3) seek consensus among affected parties to support the plan.

The final report of the Task Force was issued in 1989. In response, the legislature enacted an extensive law in 1989 relating to rural health. The 1989 measure required the Texas Higher Education Coordinating Board (THECB), the newly established Center for Rural Health Initiatives, medical and other health care education schools to cooperate to improve and expand programs for rural areas, including the following: 1) encourage and coordinate the creation or expansion of a rural preceptor program among medical schools and teaching hospitals; 2) require family practice residency programs to provide an opportunity for residents to have a one-month rotation through a rural setting; 3) develop relief service programs for rural physicians to facilitate access to continuing medical education; and 4) require medical schools to incorporate a third-year clerkship in family practice for all medical students and report on its efforts to fulfill the intent of having at least 25 percent of first year primary care residents in family practice. Until recently, Texas was the only state whose legislature required all third-year medical students to complete a clerkship in family medicine.

A 1995 law approved several new measures to improve the supply of family practice physicians. Among the provisions pertaining to medical education, it established new statewide preceptorship programs in general internal medicine and general pediatrics modeled after the existing family practice preceptorship program; provided an additional $1 million for a family practice residency training program (the first increase in state funds for the program since 1988); established three family practice residencies to provide services in economically depressed or rural areas of the state; and provided support for additional 150 community-based primary care residency positions phased in over five years, although per-resident allotments will not increase.

Undergraduate Medical Education Production Trends

In 1995, Texas' eight medical schools graduated 1,163 physicians, up from 1,013 in 1981. According to a survey of these 1995 graduates by the Texas Medical Association (TMA):

- percent of respondents chose to do their postgraduate training in Texas. This is a major reversal from the 1980s when 60 percent of Texas medical graduates left the state for postgraduate education because Texas did not have enough first-year residency positions to meet demand;
- Fifty-seven percent of respondents chose postgraduate study in the generalist specialties: family practice, internal medicine, pediatrics and obstetrics-gynecology. Forty-eight percent of respondents indicated they intended to practice in these generalist fields upon completion of training; and
- Thirty-seven percent of respondents completed a preclinical family practice preceptorship; nearly half of these identified family practice as their postgraduate specialty. Students completing family practice preceptorships were six times more likely to choose family practice as their specialty than were students who did not participate in a family practice preceptorship.

Graduate Medical Education Production Trends

In 1995, Texas' 414 allopathic and 29 osteopathic medical residencies graduated about 1,100 residents and fellows. According to a survey of these graduates by TMA:

- Of the 544 respondents who chose to practice a medical specialty, more than half (55 percent) trained in the generalist fields of internal medicine (21 percent), pediatrics (15 percent) and family practice (11 percent), and in obstetrics-gynecology (8 percent).
- More than half (56 percent) of the respondents spent the majority of their precollege years in a large city or suburb; just 20 percent lived in a small city or rural community. Only 12 percent of respondents said they intended to practice in a small city or rural community.
- In 1994, 61 percent of all first-year residents in Texas' graduate training programs were in primary care specialties.

Primary Care and Undergraduate Medical Education

The 1989 law mandated that third-year family practice clerkships be instituted starting with the 1990-1991 school year in each of the eight medical schools. As of late 1994:

- All eight schools report compliance with the family practice clerkship requirement and all schools increased the number of primary care faculty; and
- All schools report increasing student exposure to community-based primary care earlier in the curriculum, including offering preceptorship experiences in family practice for students after their first year. Each school relies on community physicians to supervise medical students in preceptorships and required or elective clerkships.

About 1,100 students annually spend one month in a rural clerkship. No additional funding was provided to the schools to implement this measure. Each school is directed to expend specific amounts from their state appropriations or institutional funds for these clerkships. For 1996-97, the legislature mandated a total of $7.3 million be spent on these clerkships across eight medical schools.

However, it is not clear whether the clerkship requirement is a significant influence on a student's decision to go into family medicine. A 1993 report by the Office of the State Auditor of the family practice clerkship indicated it is too early to determine the effectiveness of the clerkship in increasing the number of family practice physicians.

Primary Care and Graduate Medical Education

In 1977, the legislature first made state financial support available for postgraduate training in family medicine. House Bill 282 gives the Texas Family Practice Residency Program, administered by the THECB, authority to allocate state funds to family practice residencies on a contract basis. The program initially in 1977-78 appropriated about $852,000 to 12 operating residencies to support 267 positions and to nine new programs for planning activity. By 1994-95, the state provided about $8 million to 23 programs sponsored by Texas medical schools supporting more than 460 positions. Currently, there are 25 state-funded programs supporting 698 positions. (Another six family practice residency programs and 100 positions do not currently receive state support.)

Effectiveness of State Support

The rural rotation program, required by the 1989 law and begun in 1990, started with two family practice residents the first year, eight the second, and interest in this type of residency continues to increase. In 1996, 55 residents were expected to participate. Currently, family practice residents may select a supervisor from more than 100 volunteer rural family physicians statewide.

The impact of the rural rotation requirements has been beneficial—both because rural practice was incorporated into the core curriculum for medical students and it was elevated to the level of an optional rotation in residency programs. Consequently, there are increased opportunities to expose more physicians in training to rural practice.

Currently, at least 20 percent of medical school graduates go into a rural county to practice. A recent retention study by the THECB found that as many as 66 percent of the graduates of state residency programs between 1972 and 1983 remained in the area where they completed their residencies. In general, nearly 90 percent of the more than 2,000 family physicians trained in state-funded residencies have remained in the state to practice. Of those, 40 percent work in towns of 50,000 people or fewer. Furthermore, family practice residencies in 1994 reported providing more than $60 million in direct patient care service, $25 million of which was uncompensated care.

Yet, particular regions of the state remain in special need of family physicians. A 1989 report by the state health department recommended that Texas' medical schools develop or expand family practice residencies along the Texas/Mexico border "as their top priority." In part because of the 1995 appropriations bill, the state's medical schools and community hospitals are in various stages of expanding or creating seven family practice residency programs in medically underserved areas of the state.

Conclusion

Despite the significant action taken by state legislatures in the past 10 years to create and improve loan repayment and medical education initiatives aimed at increasing the supply of primary care providers practicing in medically underserved areas, much less attention has been placed on ensuring that these initiatives are effectively monitored and evaluated. Most laws carry no appropriation to evaluate nor contain measures to enforce a new program's effectiveness, thus providing the state minimal evidence of its success. In general, few sound evaluations have been performed of these various reform strategies, particularly those initiatives common to many states.

Local needs for primary care providers are expected to persist, the size and scope of renewed funding for graduate medical education under Medicare and other federal programs remain unclear, and tight state budgets are projected to continue. Therefore, it will be incumbent upon state decision makers to demand some measure of accountability from programs. Efforts to critically evaluate the success or failure of these programs can be of considerable help to state legislators as they set priorities for short- and long-term issues, solutions and allocation of funds. States need to increase their evaluation of these primary care workforce incentive programs to expand the positive aspects of these programs and discontinue those less effective components.

In recent years, a growing volume of legislation to improve the primary care workforce, particularly to reform medical education, has called for some explicit form of evaluation to measure the progress and success of individual programs. This reflects the increasing interest of lawmakers in making programs more accountable. Such efforts may also lend support to a state's decision to continue or expand a thriving program. It is important as well that evaluations be performed routinely to document a program's impact in targeted communities.

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1. Gibbens, Brad. *Placement and Retention Issues in State Scholarship and Loan Programs.* The University of North Dakota Rural Health Research Center, University of North Dakota School of Medicine. 1994. To order, call (701) 777-3848.
2. For more information, see Illinois Department of Public Health, Center for Rural Health. *Medical Student Scholarship Program: Annual Report.* 1995. To order, call (217) 782-1624.
3. For more information, see Hoppe, Margaret R. and Kindman-Koffler, Bette. Evaluation of the Effectiveness of the Primary Care Physician and Dentist Loan Redemption Program of New Jersey. May 17, 1994. To order, call (201) 982-4605.

APPENDIX I-A. SCHOLARSHIP AND/OR LOAN REPAYMENT SURVEY

Please complete and return by **October 10, 1996**.

Name: _____

Organization: _____

Address: _____

Phone: _____

1. Have you or someone else in your state conducted an evaluation of your state's scholarship and/or loan repayment program(s)? **(You can check more than one box, but please write the program name(s) next to each line.)**

☐ Yes. Evaluation is enclosed: _____
(Specify program name)

☐ We are planning on conducting an evaluation and will send you this information in the future. _____
(Specify date & program name)

☐ No. We are not planning to conduct an evaluation because: (You can check more than one box; please write the program name(s) next to each line.)

- ☐ Our program is too new, and thus information is unavailable.
- ☐ We do not have the personnel or time to conduct an evaluation.
- ☐ We do not have the money to conduct an evaluation.
- ☐ Other: _____

_____

2. In an effort to identify ALL state-supported scholarship and/or loan repayment programs, particularly those that have been in operation for several years, please provide information on those programs and contact names (if you are not the appropriate person).

Program: _____

Contact: _____

Address: _____

Phone: _____

Program: _____

Contact: _____

Address: _____

Phone: _____

Program: _____

Contact: _____

Address: _____

Phone: _____

Thank you for participating in this study!

Please return to:
Wendy Fox-Grage•NCSL•444 N. Capitol St., N.W., Suite 515•Washington, D.C. 20001

APPENDIX I-B. DIRECTORY OF STATE SCHOLARSHIP AND LOAN REPAYMENT PROGRAMS

STATE	PROGRAMS	NHSC/STATE FUNDED: EVALUATION REQUIRED	CONTACTS
AL	Community Scholarship Program	√	Cleve E. Money AL Dept. of Public Health/Primary Care & Rural Health 434 Monroe Street Montgomery, AL 36130 (334) 613-5396
	Board of Medical Scholarship Awards		Freida Baldwin Board of Medical Scholarship Awards Volker Hall, P115 Birmingham, AL 35294-0019 (205) 934-4384
AZ	AZ Medical Student Loan Program		Maggie Gumble College of Medicine Financial Aid University of Arizona 1501 N. Campbell Tucson, AZ 85724 (602) 626-7145
	AZ Loan Repayment Program	√	Belinda Ehlert AZ Loan Repayment Program 1740 W. Adams, Suite 301 Phoenix, AZ 85007 (602) 542-1216
AR	AR Rural Medical Practice Student Loan/Scholarship Program Community Match Student Loan & Scholarship Program		Tom South College of Medicine Student & Academic Affairs University of Arkansas for Medical Sciences Financial Aid - Slot 709 4301 W. Markham Street Little Rock, AR 72205-7199 (501) 686-5813
CA	NHSC/CA State Loan Repayment Program NHSC/CA Community Scholarship Program for Physician Assistants and Nurse Practitioners	√ √	Delia Santiago Office of Statewide Health Planning & Development 1600 9th Street, Room 440 Sacramento, CA 95814 (916) 654-1833
CO	CO Health Professions Loan Repayment Program	√	T.R. Kautsky Colorado AHEC System UCHSC, Box A-096 4200 E. 9th Avenue Denver, CO 80262 (303) 315-5885

STATE	PROGRAMS	NHSC/STATE FUNDED: EVALUATION REQUIRED	CONTACTS
CT	CT Loan Repayment Program	√	Jann Moody Dept. of Public Health 999 Asylum Avenue Hartford, CT 06105 (860) 509-8051
DE	Scholarship Program (service commitment) DIMER		Marilyn Quinn Higher Education Commission Carvel State Office Building 820 N. French Street Wilmington, DE 19801 (302) 577-3240
FL	FL Health Service Corps Loan Repayment Program Nursing Loan Forgiveness Program Nursing Scholarship Program	√	Lat Penland HRS Health Professional Recruitment 1317 Winewood Blvd. Tallahassee, FL 32399-0700 (800) 342-8660 Michelle Williamson Univ. of S. Florida College of Medicine 12901 Bruce B. Downs Blvd., MDC Box 4 Tampa, FL 33612-4799 (813) 974-2068
GA	GA Scholarship Program GA Loan Repayment Program	√ √	Joe Lawley State Medical Education Board of Georgia 244 Washington Street, S.W., Room 574J Atlanta, GA 30334 (404) 656-2226
ID	ID Health Professional Loan Repayment Program ID Community Scholarship Program	√	Debbie Braun and Barbara Cunningham Institute of Rural Health Studies Campus Box 8174 Pocatello, ID 83209 (208) 236-4436
IL	Medical Student Scholarship program Allied Health Care Professional Assistance Program IL National Health Service Corp Loan Repayment Program	 √	Tom Yocom Center for Rural Health 535 West Jefferson Street Springfield, IL 62761 (217) 782-1624

STATE	PROGRAMS	NHSC/STATE FUNDED: EVALUATION REQUIRED	CONTACTS
IN	Primary Care Scholarship Program Nursing Scholarship Fund Program		Fred L. Ficklin Indiana Univ. School of Medicine 635 Barnhill Drive, MS Room 162 Indianapolis, IN 46202 (317) 274-1965 Yvonne Heflin State Student Assistance Commission 150 W. Market, 5th Floor Indianapolis, IN 46204 (317) 232-2350
IA	IA Loan Repayment Program IA Community Scholarship Program	√ √	Carl Kulczyk IA Dept. of Public Health 321 E. 12th Street Des Moines, IA 50319 (515) 281-7223
KS	KS Medical Student Loan Program		Billie Jo Hamilton University of Kansas Medical Center 3901 Rainbow Blvd. Kansas City, KS 66160 (913) 588-5170
KY	Rural KY Medical Scholarship Fund Establish Practice Grant Program KY Community Scholarship Program	 √	Becky Vincent Rural Kentucky Medical Scholarship Fund 301 N. Hurstbourne Parkway, Suite 200 Louisville, KY 40222 (502) 426-6200 JoAnn Meyers Center for Rural Health University of Kentucky 100 Airport Gardens Road, Suite 10 Hazard, KY 41701 Phone: 606.439.3557
LA	State Loan Repayment Program for Physicians, Dentists & Midlevels	√	Beth Millet LA Dept. of Health and Hospitals P.O. Box 1349 Baton Rouge, LA 70821-5169 (504) 842-4702
ME	Loan Repayment Program ME Community Scholarship Program Postgraduate Health Professions Program	√ √	Sophie Glidden Dept. of Human Services 11 State House Station Augusta, ME 04333 (207) 624-5424 Gloria Nadeau Finance Authority of Maine 1 Weston Court 119 State House Station Augusta, ME 04333 (207) 626-8200

STATE	PROGRAMS	NHSC/STATE FUNDED: EVALUATION REQUIRED	CONTACTS
MD	Loan Repayment Program Family Practice Scholarship Program Physician & Oc Ther and Asst. Grant Program State Nursing Scholarship & Living Expenses Grant Loan Asst. Repayment Program for Primary Care Physicians	√	Linda Weippert MD Higher Education Commission 16 Francis Street Annapolis, MD 21401-1781 (410) 974-5370 x. 157
MA	State Loan Repayment Program	√	Rachel Gunther MA Dept. of Public Health 250 Washington Street, 5th Floor Boston, MA 02108 (617) 624-6066
MI	MI Loan Repayment Program	√	Steven Creamer Michigan Department of Community Health 3423 N. MLK Blvd., P.O. Box 30195 Lansing, MI 48909 (517) 335-8553
MN	Nurse Loan Repayment Program Rural Mid Level Practitioner Loan Repayment Program Rural Physician Loan Repayment Program Urban Physician Loan Repayment Program MN State Loan Repayment Program	√	Debra L. Jahnke MN Dept. of Health Office of Rural Health and Primary Care P.O. Box 64975 St. Paul, MN 55164 (612) 282-6334
MS	State Medical Education Loan/Scholarship Program		Dottie C. Strain Institutions of Higher Learning 3825 Ridgewood Road Jackson, MS 39211-6453 (601) 982-6663
MO	Scholarship Loan Program Primary Care Resource Initiative for MO MO Professional and Practical Nursing Student Loan and Loan Repayment Programs	√	Harold Kirbey MO Dept. of Health P.O. Box 570 Jefferson City, MO 65102 (800) 891-7415

STATE	PROGRAMS	NHSC/STATE FUNDED: EVALUATION REQUIRED	CONTACTS
MT	MT Rural Physician Incentive Program		Rod Sundsted MT University System Office of the Commissioner of Higher Education 2500 Broadway Helena, MT 59620-3101 (406) 444-6570
NE	NE Loan Repayment Program NE Medical and Physician Assistant Student Loan Program		Kay Pinkley Nebraska Office of Rural Health 301 Centennial Mall South, P.O. Box 95007 Lincoln, NE 68509-5007 (402) 471-2337
NV	NV Community Scholarship Program NV Loan Repayment Program	√	Caroline Ford Univ. of Nevada School of Medicine Center for Education and Health Services Outreach, MS 150 Reno, NV 89557 (702) 784-4841
NH	Federal/State Loan Repayment State Loan Repayment	√	John D. Bonds NH Dept. of Health and Human Services 6 Hazen Drive Concord, NH 03301 (603) 271-4617
NJ	Primary Care Physician & Dentist Loan Redemption Program	√	Sharon Bryant Primary Care Physician and Dentist Loan Redemption Program of New Jersey 65 Bergen Street, 14th Floor Newark, NJ 07107-3000 (201) 982-4605
NM	Osteopathic Medical Student Loan for Service Program Medical Student Loan-for-Service Program Allied Health Student Loan-for-Service Program Nursing Student Loan-for-Service Program Health Professional Loan Repayment Program	√	Kenn Williams Financial Aid and Student Services P.O. Box 15910 Sante Fe, NM 87506-5910 (505) 827-7383

STATE	PROGRAMS	NHSC/STATE FUNDED: EVALUATION REQUIRED	CONTACTS
NY	Regents Physician Loan Forgiveness Award Program Primary Care Service Corps Physician Loan Repayment Program Resident Loan Repayment Program Community Scholarship Program State Loan Repayment Program	 √ √	Douglas P. Mercado NY State Education Dept. Albany, NY 12234 (518) 486-5202 Tom Kaczmarek NY State Dept. of Health Bureau of Health Resources Development 1602 Corning Tower Building Albany, NY 12237-0053 (518) 473-7019
NC	NC Student Loan Program for Health, Science & Mathematics Loan Repayment Program High Needs Service Bonus Program Residency Loan Program	 √	NC Student Loan Program for Health, Science & Mathematics P.O. Box 20549 Raleigh, NC 27619-0549 (919) 571-4178 Judi Ashbaugh NC Office of Rural Health and Resources Dev. 311 Ashe Avenue Raleigh, NC 27606 (919) 733-2040
ND	Physician Loan Repayment Program Midlevel Practitioner Loan Repayment Program ND Community Scholarship Program	 √	Mary Amundson UND Center for Rural Health P.O. Box 9037 Grand Forks, ND 58202-9037 (701) 777-3848
OH	Physician Loan Repayment Program		Susan Ewing-Ramsay OH Dept. of Health 246 N. High Street, P.O. Box 118 Columbus, OH 43266-0118 (614) 466-3543
OK	Rural Medical Education Scholarship Loan Program Resident Rural Scholarship Loan Program Physician Community Match Nursing Student Assistance Scholarship Program		James Bishop Physician Manpower Training Commission 1140 Northwest 63rd Street, Suite 302 Oklahoma City, OK 73116 (405) 843-5667

STATE	PROGRAMS	NHSC/STATE FUNDED: EVALUATION REQUIRED	CONTACTS
OR	OR Rural Health Services Program OR Nursing Loan OR Community Scholarship Program	 √	James Beyer OR State Scholarship Commission 1500 Valley River Drive, Suite 100 Eugene, OR 97401 (541) 687-7385
PA	National Health Service Corps State Loan Repayment Program PA State Loan Repayment Program	√	Joseph B. May, III PA Dept. of Health Room 709, H & W Building Harrisburg, PA 17120 (717) 772-5298
RI	RI Loan Repayment Program	√	Dolores Diorio RI Dept. of Health 3 Capitol Hill Providence, RI 02908 (401) 277-3442
SC	SC State Incentive Grant for Advanced Level Practitioners SC Resident Incentive Grant SC State Incentive Grant Physicians		Rebecca S. Seignious SC AHEC Recruitment & Retention Program 171 Ashley Avenue Charleston, SC 29425 (803) 771-2810
SD	SD Physician Tuition Reimbursement Program SD Midlevel Reimbursement Program		Bart Hallberg SD Office of Rural Health 445 E. Capitol Pierre, SD 57501 (605) 773-4440
TN	Health Access Incentive Program		Bill Jolley Office of Rural Health 5th Floor, Cordell Hull Building 426 Fifth Avenue North Nashville, TN 37247 (615) 741-0388
TX	Physician Education Loan Repayment Program of TX State Medical Education Board TX Community Scholarship Program Rural Physician Assistant Reimbursement Program Outstanding Rural Scholar Recognition Program	√ √	Bob Kirk Texas Higher Education Coordinating Board P.O. Box 12788 Austin, TX 78711 (512) 427-6367 Carol Peters Center for Rural Health Initiatives 211 E. 7th Street, Suite 915 Austin, TX 78701 (512) 479-8891

STATE	PROGRAMS	NHSC/STATE FUNDED: EVALUATION REQUIRED	CONTACTS
UT	Rural Medical Education Scholarship Program Rural Medical Education Loan Repayment Program	 √	Robert J. Quinn UT Dept. of Health Box 142856 Salt Lake City, UT 84114-2856 (801) 538-6113
VT	VT State Loan Repayment Program	√	Ellen Thompson VT Dept. of Health 108 Cherry Street P.O. Box 70 Burlington, VT 05402 (802) 863-7606
VA	Loan Repayment Program VA Medical Scholarship Program	√	Lilia M. Williams VA Dept. of Health Office of Primary Care Development 1500 E. Main Street, Suite 213 Richmond, VA 23219 (804) 786-4891
WA	WA State Health Professional Loan Repayment and Scholarship Program	√	Kathy McVay Higher Education Coordinating Board 917 Lakeridge Way, S.W. P.O. Box 43430 Olympia, WA 98504-3430 (360) 753-7850
WV	WV Community Scholarship Program Health Sciences Scholarship Program Medical Student Loan Program State Loan Repayment Program Recruitment and Retention Community Project	√ √	Jodie Jackson Office of Rural Health West Virginia University P.O. Box 9003 Health Sciences North Morgantown, WV 26506-9003 (304) 293-6753 Alicia Tyler University System of West Virginia 1018 Kanawha Blvd. East, Suite 1100 Charleston, WV 25301-2827 (304) 558-0530
WI	WI Physician Loan Assistance Program WI Health Care Provider Loan Assistance Program		Jane Thomas Wisconsin Department of Commerce 123 West Washington Ave, P.O. Box 7970 Madison , WI 53707 (608) 267-3837
Total	111 Programs	41	

NOTE: As a condition for receiving funds from the National Health Service Corp., these 41 Community Scholarship and State Loan Repayment Programs must turn in quarterly reports that contain evaluative program data.

APPENDIX I-C. EVALUATIONS OF STATE SCHOLARSHIP AND LOAN PROGRAMS

State	Program	Evaluation	Planning Evaluation	No Evaluation				Comments
				Too New	No Time or Staff	No Money	Other	
AL	Community Scholarship Program (4)	No	No	✓				
	Board of Medical Scholarship Awards	No	No	✓				
AZ	AZ Medical Student Loan Program (18)	Yes	No					Interview conducted.
	AZ Loan Repayment Program (2)	No	No					
AR	AR Rural Medical Practice Student Loan/Scholarship Program (47)	Yes	No					Interview conducted.
	Community Match Student Loan & Scholarship Program (1)	No	No	✓				
CA	NHSC/CA State Loan Repayment Program (5)	No	No		✓			Funded by federal and a nonprofit.
	NHSC/CA Community Scholarship Program for Physician Assistants and Nurse Practitioners	No	No		✓			The Community Scholarship Program will not reapply for funding from NHSC, but will monitor its recipients for the next two years.
CO	CO Health Professions Loan Repayment Program (5)	No	No			✓		Funded by federal government and community.
CT	CT Loan Repayment Program (5)	No	No			✓		
DE	Scholarship Program (service commitment) (3)	No	No	✓				Interview conducted.
	DIMER (27)	Yes	No					

State	Program	Evaluation	Planning Evaluation	No Evaluation				Comments
				Too New	No Time or Staff	No Money	Other	
FL	FL Health Service Corps Loan Repayment Program (2)	No	No		✓		✓	Health Service Corps will expire in July 1997. HRS Health Professional Recruitment plans to folllow up with students to determine retention rates.
	Nursing Loan Forgiveness Program (5)	No	No			✓		Nursing programs are funded by licenser fees.
	Nursing Scholarship Program (2)	No	No			✓		
GA	GA Scholarship Program (43)	Yes	No					Evaluations were not received.
	GA Loan Repayment Program (7)	Yes	No					
ID	ID Health Professional Loan Repayment Program (4)	Yes	No					Interview conducted.
	ID Community Scholarship Program (New)	No	No	✓				
IL	Medical Student Scholarship program (18)	Yes	No					Interview conducted.
	Allied Health Care Professional Assistance Program (2)	No	No	✓				
	IL National Health Service Corp Loan Repayment Program (2)	No	No	✓				
IN	Primary Care Scholarship Program (2)	No	No	✓				
	Nursing Scholarship Fund Program (5)	No	No		✓	✓		
IA	IA Loan Repayment Program (2)	No	No	✓				
	IA Community Scholarship Program (2)	No	No	✓				

State	Program	Evaluation	Planning Evaluation	No Evaluation				Comments
				Too New	No Time or Staff	No Money	Other	
KS	KS Medical Student Loan Program (16)	No	No		✓			
KY	Rural KY Medical Scholarship Fund (50)	No	No		✓		✓	Both funded by private foundations.
	Establish Practice Grant Program (6)	No	No		✓		✓	Have few participants per year, so it's not enough to do an evaluation.
	KY Community Scholarship Program (5)	No	No				✓	
LA	State Loan Repayment Program for Physicians, Dentists & Midlevels (6)	No	Yes					Doesn't know when the evaluation will be completed.
ME	Loan Repayment Program (7)	No	Yes					Is conducting an evaluation with 20 years of data. It will be ready in March 1997 when the summer intern returns. The evaluation for the State Loan Repayment Program will also be completed in 1997. It will be a simple evaluation since funds are limited.
	Postgraduate Health Professions Program (30)	No	Yes					
	ME Community Scholarship Program (4)	No	No	✓				
MD	Loan Repayment Program (7)	No	No				✓	Examining state goals to determine if the programs are meeting them; they don't collect data to measure their effectiveness.
	Family Practice Scholarship Program (13)	No	No				✓	
	Physician & Oc Ther and Asst. Grant Program (8)	No	No				✓	
	State Nursing Scholarship & Living Expenses Grant (8)	No	No				✓	
	Loan Asst. Repayment Program for Primary Care Physicians (New)	No	No				✓	

State	Program	Evaluation	Planning Evaluation	No Evaluation				Comments
				Too New	No Time or Staff	No Money	Other	
MA	State Loan Repayment Program (6)	No	Yes					Because of staffing changes (or shortage of staff), the evaluation may not be conducted for several months.
MI	MI Loan Repayment Program (6)	Yes	No					Interview conducted. The program which lists the recipients by retention and default was constructed on July 1995 and will be updated in September 1997.
MN	Nurse Loan Repayment Program (4)	No	No	✓				
	Rural Mid Level Practitioner Loan Repayment Program (4)	No	No	✓				
	Rural Physician Loan Repayment Program (4)	No	No	✓				
	Urban Physician Loan Repayment Program (4)	No	No	✓				
	MN State Loan Repayment Program (4)	No	No	✓				
MS	State Medical Education Loan/Scholarship Program (4)	No	No		✓	✓		
MO	Scholarship Loan Program (14)	No	No		✓			About eight years ago, their advisory board decided not to track students.
	Primary Care Resource Initiative for MO (2)	No	No		✓			
	MO Professional and Practical Nursing Student Loan and Loan Repayment Programs	No	No		✓			
MT	MT Rural Physician Incentive Program (4)	No	Yes					Funded by trust fund from student fees. Completion date of the evaluation was not specified.

State	Program	Evaluation	Planning Evaluation	No Evaluation				Comments
				Too New	No Time or Staff	No Money	Other	
NE	NE Loan Repayment Program (2) NE Medical and Physician Assistant Student Loan Program (18)	No Yes	No No	✓				Interview conducted. Evaluation was completed three years ago. Although a formal evaluation has not been conducted since that time, current summary statistics demonstrate the impact of the program.
NV	NV Community Scholarship Program (5) NV Loan Repayment Program (6)	No No	No Yes		✓	✓		In the spring of 1997, the Office of Rural Health will publish a promotional piece for its anniversary. Evaluation information will be included. The program tracks its students and reports bi-annually to the legislature, but it does not produce a bi-annual evaluation.
NH	Federal/State Loan Repayment (3) State Loan Repayment (1)	No No	Yes Yes					Evaluation will be completed in Spring 1997.
NJ	Primary Care Physician & Dentist Loan Redemption Program (4)	Yes	No					Interview conducted.
NM	Osteopathic Medical Student Loan for Service Program (21) Medical Student Loan-for-Service Program (21) Allied Health Student Loan-for-Service Program (2) Nursing Student Loan-for-Service Program (18) Health Professional Loan Repayment Program (8)	No No No No No	Yes Yes Yes Yes Yes					Evaluations will be conducted within the next 12 months.

State	Program	Evaluation	Planning Evaluation	No Evaluation				Comments
				Too New	No Time or Staff	No Money	Other	
NY	Regents Physician Loan Forgiveness Award Program (10)	No	No		✓	✓		Survey questionnaire received. Quarterly evaluation was not sent because the administrator is on maternity leave.
	Primary Care Service Corps (2)	No	No	✓				
	Physician Loan Repayment Program (1)	No	No	✓				
	Resident Loan Repayment Program (1)	No	No	✓				
	Community Scholarship Program (New)	No	No	✓				
	State Loan Repayment Program (4)	Yes	No					
NC	NC Student Loan Program for Health, Science & Mathematics (48)	No	No		✓	✓		Tracked students manually for years; started using 4-D software last year, so expects to conduct evaulations in one to two years.
	Loan Repayment Program (8)	No	Yes					
	High Needs Service Bonus Program (5)	No	Yes					
	Residency Loan Program (4)	No	Yes					
ND	Physician Loan Repayment Program (6)	No	No				✓	Our program is underutilized perhaps due to the limited amount of funds allocated. Only one provider has completed the service obligation and has remained in the index site. The others are still in service.
	Midlevel Practitioner Loan Repayment Program (2)	No	No				✓	
	ND Community Scholarship Program (1)	No	No				✓	Likewise, the Community Scholarship Program has no recipients.

State	Program	Evaluation	Planning Evaluation	No Evaluation				Comments
				Too New	No Time or Staff	No Money	Other	
OH	Physician Loan Repayment Program (2)	No	No	✓				
OK	Rural Medical Education Scholarship Loan Program (21)	Yes	No					Interview conducted.
	Resident Rural Scholarship Loan Program (4)	No	No	✓				
	Physician Community Match (5)							
	Nursing Student Assistance Scholarship Program (14)	Yes	No					
		Yes	No					
OR	OR Rural Health Services Program (6)	No	No	✓	✓			
	Oregon Nursing Loan	No	No	✓	✓			
	OR Community Scholarship Program (1)	No	No	✓				
PA	National Health Service Corps State Loan Repayment Program (3)	No	Yes					Program evaluations planned for 1997.
	PA State Loan Repayment Program (3)	No	Yes					
RI	RI Loan Repayment Program (3)	No	No	✓				

State	Program	Evaluation	Planning Evaluation	No Evaluation				Comments
				Too New	No Time or Staff	No Money	Other	
SC	SC State Incentive Grant for Advanced Level Practitioners (2)	No	No	✓				Statistics are kept on recipients in the SC State Incentive Grant Physicians.
	SC Resident Incentive Grant (New)	No	No	✓				
	SC State Incentive Grant Physicians (8)	No	No				✓	
SD	SD Physician Tuition Reimbursement Program (8)	No	No				✓	Our state sponsored programs are constantly being evaluated for improvements. Nothing is currently available as far as a written evaluation.
	SD Midlevel Reimbursement Program	No	No				✓	
TN	Health Access Incentive Program (7)	Yes	No					Interview conducted. Funded by unclaimed property.
TX	Physician Education Loan Repayment Program of TX (9)	Yes	No					Interview conducted. SMEB is phasing out and no longer making loans. Providers are still either serving their commitments or repaying their loans. The Center for Rural Health Initiatives reports to the governor and TX Legislature annually on rural health in the state, as well as its two scholarship and loan programs.
	State Medical Education Board (20)	No	No				✓	
	TX Community Scholarship Program (2)	Yes	No					
	Rural Physician Assistant Reimbursement Program (New)	No	Yes					
	Outstanding Rural Scholar Recognition Program (5)	Yes	No					
UT	Rural Medical Education Scholarship Program (4)	No	No	✓				
	Rural Medical Education Loan Repayment Program (7)	No	No	✓				

State	Program	Evaluation	Planning Evaluation	No Evaluation				Comments
				Too New	No Time or Staff	No Money	Other	
VT	VT State Loan Repayment Program (2)	No	No	✓				
VA	Loan Repayment Program (6)	No	No	✓				Program data has been collected, but it is not in a report format.
	VA Medical Scholarship Program (54)	No	No				✓	
WA	WA State Health Professional Loan Repayment and Scholarship Program (8)	No	Yes					Conducting an internal and external review. The state legislature has not asked for such an evaluation so finding the resources has been difficult. Evaluation will be completed in Spring 1997.
WV	WV Community Scholarship Program (5)	No	No	✓				Interview conducted.
	Health Sciences Scholarship Program (1)	Yes	No					Medical Student Loan Program is funded by state medical student fees. The program evaluation will be conducted in Spring 1997 to demonstrate to the state legislature that changes need to be made.
	Medical Student Loan Program (9)	No	Yes					State Loan Repayment Program has too few participants to merit an evaluation.
	State Loan Repayment Program (7)	No	No			✓	✓	
	Recruitment and Retention Community Project (New)	No	No	✓				
WI	WI Physician Loan Assistance Program (5)	Yes	No					Interview conducted. The Office of Rural Health has not been able to update its evaluation because of a lack of personnel, time and money.
	WI Health Care Provider Loan Assistance Program (2)	No	No	✓				
Total	111 Responses	20 programs in 15 states	21 programs in 12 states	36	16	10	18	

(#): Signifies the years that programs have been in operation. The Association of American Medical Colleges provided much of this information. Intergovernmental Health Policy Project, National Conference of State Legislatures, December 1996

SOURCE: Intergovernmental Health Policy Project, The George Washington University, December 1995

APPENDIX I-D. PROGRAM EVALUATION TABLES

Arizona

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	AZ Medical Student Loan Program
Year Program became Operational	1978
IMPETUS FOR EVALUATION First Evaluation	1995
Reason for Conducting Evaluation	Legislative Mandate
PROCESS Information Collected	Cost of medical education; number of students enrolled in the program; state appropriations to the program; amount of loan to each student; number of physicians in service; physicians in service versus repayment; estimated number of physicians in the program available for service; placement, appropriations, students' stipends and number of students in the program compared with programs in six other states
System of Data Collection	Has tracked students using WordPerfect, but is now switching to Access software.
Cost and Personnel Time	240 hours
Frequency of Updates	Bi-annually
Advice to Other Program Administrators	Collect data that go beyond what the legislature requires (if appropriate); for example, the legislature has now mandated the program administrator to collect data on those providers who have served beyond their service obligation period and other such data.
OUTCOMES Usefulness of Program Evaluation	It was useful in that the program administrator gained an understanding of how the program has worked and realized how outdated the program had become.
Multi-State Meeting on Lessons Learned from Program Evaluation	Very useful, as long as funding for travel is provided. There is no nationwide program for state funded programs.

OTHER COMMENTS	The 1995 law identified 10 programs to be reviewed in the first cycle; this program was one of them. The program must present data bi-annually as part of the appropriations process. The program administrator, however, was unsure when she would have to present another in-depth Program Authorization Review to the legislature.
CONTACT	Maggie Gumble College of Medicine Financial Aid University of Arizona 1501 N. Campbell Tucson, AZ 85724 (602) 626-7145

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	The Arkansas Rural Medical Practice Student Loan and Scholarship Program
Year Program became Operational	1949
IMPETUS FOR EVALUATION First Evaluation	In 1995, the program evaluation was conducted because of a legislative mandate. Prior to that, it was evaluated as requested.
Reason for Conducting Evaluation	Legislative mandate
PROCESS Information Collected	Percent and number of recipients from 1980 to 1993 that have complied with service, that did not comply but repaid the state with cash, that are pending and that are practicing in the state.
System of Data Collection	Compliance forms mailed to providers after their residencies; information collected manually.
Cost and Personnel Time	1 week
Frequency of Updates	Annually
Advice to Other Program Administrators	Evaluations are much easier to conduct if you keep good records throughout the years and know what report format to input the information.
OUTCOMES Usefulness of Program Evaluation	Too soon to tell. The evaluation was conducted last month, and they have not heard from the legislature.
Multi-State Meeting on Lessons Learned from Program Evaluation	Maybe, a meeting would be useful. The program evaluation requirements are already in law, but maybe they could propose changes to the law.
OTHER COMMENTS	None
CONTACT	Tom South College of Medicine Student & Academic Affairs University of Arkansas for Medical Sciences Financial Aid - Slot 709 4301 W. Markham Street Little Rock, AR 72205-7199 (501) 686-5813

Delaware

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	Delaware Institute of Medical Education and Research (DIMER)
Year Program became Operational	1969
IMPETUS FOR EVALUATION First Evaluation	27th year of program
Reason for Conducting Evaluation	Recommended by the DE General Assembly Joint Sunset Committee
PROCESS Information Collected	Scope of state's primary care needs using a survey of primary care physicians conducted by the Division of Public Health; existing medical education opportunities for DE residents; and systematic review of DIMER operations.
System of Data Collection	Comprehensive review by the DE Health Care Commission Primary Care Committee
Cost and Personnel Time	No direct cost to DIMER because it was a legislative review.
Frequency of Updates	One time only
Advice to Other Program Administrators	Not applicable
OUTCOMES Usefulness of Program Evaluation	Evaluation led to the reauthorization of DIMER, expansion of its role and focus and an administrative move to the DE Health Care Commission.
Multi-State Meeting on Lessons Learned from Program Evaluation	Not applicable

OTHER COMMENTS	Through DIMER, Jefferson Medical College of Thomas Jefferson University functions as the state's medical school since the state does not have one. DIMER grants and loans are offered to students as they enter Jefferson Medical College and carry a financial consequence of not returning to the state to practice.
CONTACT	Marilyn Quinn Higher Education Commission Carvel State Office Building 820 N. French Street Wilmington, DE 19801 (302) 577-3240

Idaho

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	Idaho Health Professional Loan Repayment Program
Year Program became Operational	1992
IMPETUS FOR EVALUATION First Evaluation	Fourth year of the program.
Reason for Conducting Evaluation	Requirement from Dept. of Health and Welfare.
PROCESS Information Collected	Where participants were raised and where they plan to be practicing (rural vs. urban areas), new programs participants have implemented in their communities, the communities' thoughts on the program's responsiveness to inquiries, and their willingness to write to legislators in support of more funding for the program.
System of Data Collection	Two different mail surveys--one to participants and the other to the Primary Care Service Areas--which were followed-up by phone and fax.
Cost and Personnel Time	No cost because volunteers conducted the surveys; two weeks.
Frequency of Updates	Depends on the availability of funds.
Advice to Other Program Administrators	Try to recruit students for conducting phone surveys.
OUTCOMES Usefulness of Program Evaluation	Evaluations are a good justification for a program's existence and for asking the legislature for more funding.
Multi-State Meeting on Lessons Learned from Program Evaluation	This meeting would be valuable given that travel scholarship funds are provided.
OTHER COMMENTS	Rather than reinvent the wheel, let's tap resources that are available by learning from other state scholarship and loan programs.
CONTACT	Debbie Braun Institute of Rural Health Studies Campus Box 8174 Pocatello, ID 83209 (208) 236-4436

Illinois

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	Medical Student Scholarship Program
Year Program became Operational	1978
IMPETUS FOR EVALUATION First Evaluation	1984-1985 academic year
Reason for Conducting Evaluation	Legislative mandate
PROCESS Information Collected	Students receiving new and continuing scholarships; expenditures and fiscal history of program; number of scholarships by public and private medical schools; ethnicity and gender of recipients; retention rates; recipients' medical specialty and geographic distribution; recipients' practice location; type of high school of those serving beyond obligation; academic failures; monetary repayment; and number of buyouts by school.
System of Data Collection	Use Data Ease software and mail surveys every six months on prepared forms to track students, residents and those in practice.
Cost and Personnel Time	Two weeks; $$ unknown
Frequency of Updates	Annually - every March
Advice to Other Program Administrators	Think about who wants to know what and what information is useful before you evaluate the program; use a user-friendly, manageable data base to track students, so anyone can use it; identify other programs run by universities, higher education boards and rural health departments that are also channeling providers into underserved areas; include a comments section in the evaluation; track recipients' years of service in the communities.
OUTCOMES Usefulness of Program Evaluation	It has given us confidence in that we can demonstrate the effectiveness of the program with hard numbers.
Multi-State Meeting on Lessons Learned from Program Evaluation	Valuable. Ideas for dicussion include reciprocity, litigation and contract designs. Keep the meeting small and regional.

OTHER COMMENTS	
CONTACT	Tom Yocom Center for Rural Health 535 West Jefferson Street Springfield, IL 62761 (217) 782-1624

Michigan

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	State Loan Repayment Program
Year Program was Established	1990
IMPETUS FOR EVALUATION First Evaluation	Program in existence for five years when first evaluated.
Reason for Conducting Evaluation	Want to know status of retention situation of loan recipients. Had the resource availability of student intern.
PROCESS Information Collected	Retention status of loan recipients.
System of Data Collection	Telephone survey; hand tabulation of responses.
Cost and Personnel Time	$300; one week.
Frequency of Updates	Expect to update in 1997 (two years since the last survey); hope to do annually thereafter.
Advice to Other Program Administrators	Develop data base of all recipient practice sites. Collect data via mail questionnaire.
OUTCOMES Usefulness of Program Evaluation	Very useful, particularly as time goes on. Data used to support federal loan repayment grant, provide anecodotes to legislators on value of program, recruit new participants by providing data on prospective sites.
Multi-State Meeting on Lessons Learned from Program Evaluation	I do not know. Limit of state travel funds also a problem.
OTHER COMMENTS	None.
CONTACT	Steven Creamer Michigan Department of Community Health 3423 N. MLK Blvd., P.O. Box 30195 Lansing, MI 48909 (517) 335-8553

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	Rural Health Scholarship Program
Year Program became Operational	1979
IMPETUS FOR EVALUATION First Evaluation	Program in existence for 14 years when first evaluated.
Reason for Conducting Evaluation	Offered the free resources of a graduate student.
PROCESS Information Collected	Demographic analysis of program participants who had completed their service obligation to categorize and analyze retention successes and practice plans. Comparisons of location of residency to retention in obligated service areas.
System of Data Collection	Manual tabulation of existing participant data base; no interviews performed.
Cost and Personnel Time	60 to 80 hours
Frequency of Updates	None; future systematic evaluations subject to the availability of funds.
Advice to Other Program Administrators	Conduct participant interviews to gauge feelings of the program's influence on training and practice locations.
OUTCOMES Usefulness of Program Evaluation	Useful in knowing relationship between where participant did residency training and where he/she completed service obligation.
Multi-State Meeting on Lessons Learned from Program Evaluation	Valuable to have such a meeting; would be willing to participate.
OTHER COMMENTS	None.
CONTACT	Kay Pinkley Nebraska Office of Rural Health 301 Centennial Mall South, P.O. Box 95007 Lincoln, NE 68509-5007 (402) 471-2337

New Jersey

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	Primary Care Physician and Dentist Loan Redemption Program
Year Program became Operational	1992
IMPETUS FOR EVALUATION First Evaluation	Program in existence for two years when first evaluated.
Reason for Conducting Evaluation	Health department evaluated many programs, including theirs.
PROCESS Information Collected	Recruitment; best practices from programs in CT, FL, LA, MA, ME, MD, NY, TX and WA; practice sites; patient and practitioners' satisfaction with the program; provider sensitivity to community needs.
System of Data Collection	Used outside research firm, MRH Evaluations, to conduct study.
Cost and Personnel Time	Roughly $10,000; eight months.
Frequency of Updates	Subject to the availability of funds.
Advice to Other Program Administrators	Evaluation was very worthwhile.
OUTCOMES Usefulness of Program Evaluation	Very useful. Recommendations from evaluation were incorporated into a proposal to the governor.
Multi-State Meeting on Lessons Learned from Program Evaluation	Valuable to have such a meeting; would be willing to participate given travel funds are provided.
OTHER COMMENTS	States should conduct site visits, as well as phone surveys, to collect program evaluation information.
CONTACT	Sharon Bryant Primary Care Physician and Dentist Loan Redemption Program of New Jersey 65 Bergen Street, 14th Floor Newark, NJ 07107-3000 (201) 982-4605

Oklahoma

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	1) Rural Medical Education Scholarship Program 2) Family/General Practice Resident Rural Scholarship 3) Physician Community Match Loan Program 4) Nursing Student Assistance Scholarship Program
Year Programs were Established	1) 1975; 2) 1992; 3) 1992; 4) 1982
IMPETUS FOR EVALUATION First Evaluation	Programs in existence for one year when first evaluated.
Reason for Conducting Evaluation	Legislative mandate and report to the governor.
PROCESS Information Collected	Provider practice location and specialty, length of time in obligation, retention status.
System of Data Collection	Annual mail questionnaire form tabulated on computer data base.
Cost and Personnel Time	One day of work.
Frequency of Updates	Annually.
Advice to Other Program Administrators	Keep the evaluation process simple. Don't rely on licensure or medical society records to locate providers.
OUTCOMES Usefulness of Program Evaluation	Able to annually decide whether strategies need to be fine tuned.
Multi-State Meeting on Lessons Learned from Program Evaluation	Valuable to have such a meeting; would be willing to participate.
OTHER COMMENTS	None.
CONTACT	James Bishop Physician Manpower Training Commission 1140 Northwest 63rd Street, Suite 302 Oklahoma City, OK 73116 (405) 843-5667

Tennessee

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	Health Access Incentive Program
Year Program was Established	1989
IMPETUS FOR EVALUATION First Evaluation	Program in existence for seven years when first evaluated.
Reason for Conducting Evaluation	Request from new Commissioner of Health.
PROCESS Information Collected	Placement by specialty and location. Retention status of grant recipients.
System of Data Collection	Computer data base tabulating results of annual survey of all primary care physicians in rural areas of state.
Cost and Personnel Time	One FTE analyst, three part-time regional staff. Will contract with university for $30,000 to perform evaluation of physician assistants and advanced practice nurses.
Frequency of Updates	Annually
Advice to Other Program Administrators	Keep questions short and concise; use tool to ensure high response rate. Obtain data on FTE levels so if actual levels are lower than previously known in a given area, then such areas may qualify for federal HPSA or MUA status.
OUTCOMES Usefulness of Program Evaluation	Results helpful in deciding to restructure the program next year to focus on more of a local health care system's needs rather than look at individual provider placements. (Would many providers already have gone to such communities anyway?) Regions will be given more flexibility to design business plans.
Multi-State Meeting on Lessons Learned from Program Evaluation	Valuable to have such a meeting; would be willing to participate.
OTHER COMMENTS	None.

CONTACT	Bill Jolley Office of Rural Health 5th Floor, Cordell Hull Building 426 Fifth Avenue North Nashville, TN 37247 (615) 741-0388

Texas

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	Physician Education Loan Repayment Program
Year Program was Established	1987
IMPETUS FOR EVALUATION First Evaluation	Program in existence for five years when first evaluated.
Reason for Conducting Evaluation	Provide additional justification to receive federal loan repayment matching funds. To obtain useful data.
PROCESS Information Collected	Loan recipient perceptions of the importance of PELRP in deciding to practice in HPSA and remaining there; retention data.
System of Data Collection	Internally administered survey gauging simplified responses that are easily tabulated.
Cost and Personnel Time	Roughly $1,300; two weeks.
Frequency of Updates	First survey performed in 1992; hope to conduct similar evaluation in a few years.
Advice to Other Program Administrators	Keep surveys simple and easily comparable to previous and future evaluations. Beware of respondent bias -- those with the most vested interest will respond first.
OUTCOMES Usefulness of Program Evaluation	Very useful. Able to establish trendline and compare with previous surveys. Can provide insight to what extent recipients already had interest and intention in serving in HPSA; would they have gone there anyway?
Multi-State Meeting on Lessons Learned from Program Evaluation	Valuable to have such a meeting; would be willing to participate given travel funds are provided.
OTHER COMMENTS	None.

Categories	Program Specific Information
PROGRAM INFORMATION	
Program Name(s)	Outstanding Rural Scholar Recognition Program; Community Scholarship Program
Year Program became Operational	1992, 1994
IMPETUS FOR EVALUATION	
First Evaluation	First year of programs. Since 1987, the Center for Rural Health Initiatives has published a report on Rural Health in Texas that contain evaluative data on the scholarship programs among other types of data such as activities of the center and the availability of health professionals.
Reason for Conducting Evaluation	Legislative Mandate
PROCESS	
Information Collected	Number of communities that have sponsored students; number of students in the programs; recruitment and retention data.
System of Data Collection	Annual letter to sponsors
Cost and Personnel Time	Four months to create the entire rural health report (not just the cumulative data on scholarship recipients).
Frequency of Updates	Bi-annually
Advice to Other Program Administrators	Form close liaisons with staff in related agencies to receive relevant data that is critical to the program such as HPSA data.
OUTCOMES	
Usefulness of Program Evaluation	Yes. A few legislators from rural areas use the report to maintain funding for rural projects and appropriate small, additional amounts to existing programs.
Multi-State Meeting on Lessons Learned from Program Evaluation	It would be a good idea, particularly for those that are trying to develop or expand their programs. It's always valuable to learn from other states.
OTHER COMMENTS	
CONTACT	Carol Peters Center for Rural Health Initiatives 211 E. 7th Street, Suite 915 Austin, TX 78701 (512) 479-8891

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	Health Sciences Scholarship Program
Year Program became Operational	1995
IMPETUS FOR EVALUATION First Evaluation	First year of program
Reason for Conducting Evaluation	Request from the vice chancellor for health sciences
PROCESS Information Collected	Students who were born in state; students who have completed WV Rural Education Partnerships rotations or have other rural training; areas of intended practice for medical students participating in the program.
System of Data Collection	Gathers this information from students' applications forms. An independent firm is developing a custom-made data base for the program.
Cost and Personnel Time	N/A
Frequency of Updates	Ongoing once the data base is created.
Advice to Other Program Administrators	
OUTCOMES Usefulness of Program Evaluation	Yes. It is important to go beyond financial information and collect outcome data.
Multi-State Meeting on Lessons Learned from Program Evaluation	Great idea. We need more face-to-face contact especially as we are all trying to do more with less.
OTHER COMMENTS	Higher education and health sciences schools must collect data for a report card that is issued to the legislature. However, the report card focuses on financial information, instead of outcomes.
CONTACT	Alicia Tyler University System of West Virginia 1018 Kanawha Blvd. East, Suite 1100 Charleston, WV 25301-2827 (304) 558-0530

Wisconsin

Categories	Program Specific Information
PROGRAM INFORMATION Program Name(s)	Physician Loan Assistance Program
Year Program became Operational	1991
IMPETUS FOR EVALUATION First Evaluation	Program in existence for one year when first evaluated.
Reason for Conducting Evaluation	Was new program doing what it was designed to do? No mandate to do it.
PROCESS Information Collected	Recipient demographics including location/nature of training, specialty, previous exposure to underserved area and other factors influencing practice in such settings, time in obligation, amount of loan, current patient workload. Value of PLAP in recruitment. Program process issues. Other factors to help improve provider recruitment in underserved areas.
System of Data Collection	Hand tabulated data base on recipients.
Cost and Personnel Time	35 FTE (two people) over four months.
Frequency of Updates	Not updated since 1992.
Advice to Other Program Administrators	Conduct formal research project; make sure data base is sound by ensuring loan application contains most information of what will be needed. Survey should be performed periodically.
OUTCOMES Usefulness of Program Evaluation	Very useful, but needs updating. Inform legislators of the value of state dollars. Program has made a difference but is realization that program's impact may be marginal; many recipients would have gone to underserved areas anyway.
Multi-State Meeting on Lessons Learned from Program Evaluation	Valuable to have such a meeting; would be willing to participate.
OTHER COMMENTS	None

CONTACT	Mark Shapleigh Wisconsin Office of Rural Health 740 WARF, 610 Walnut Street Madison, WI 53705-2336 (608) 265-3603 Jane Thomas Wisconsin Department of Commerce 123 West Washington Ave, P.O. Box 7970 Madison , WI 53707 (608) 267-3837

APPENDIX I-E. NHSC REPORTING REQUIREMENTS

The reporting requirements are contained in four separate sections of the current statute and are reported in each annual report.

Section 336A requires the following data:

1. The number, identify and priority of all HPSAs designated during the year and the number of HPSAs which the secretary estimates will be designated in the subsequent year;

2. The number of applications during the year for assignment of NHSC members and the action taken on each application;

3. The number and types of NHSC members which the secretary estimates will be assigned to such areas in the subsequent year, and the need for additional members for the NHSC;

4. The recruitment efforts engaged in for the NHSC during the year and the number of qualified individuals who applied for service in the NHSC during the year;

5. The number of patients seen and the number of patient visits recorded during the year with respect to each HPSA to which an NHSC member was assigned during the year;

6. The number of NHCS members who elected, and the number of NHCS members who did not elect, to continue to provide health services in HPSAs after termination of their service in the NHCS and the reasons for not making such election;

7. The results of evaluations and determinations made under Section 333 during the year; and

8. The amount charged during the year for health services provided by NHSC members, the amount which was collected during the year by appropriate entities and the amount paid to the secretary during the year under such agreements.

Section 338A(i) requires an annual report for the previous fiscal year that includes:

1. The number and type of health professions training of students receiving scholarships under the Scholarship Program;

2. The educational institutions at which such students are receiving their training;

3. The number of applications filed in the school year beginning in the reporting year and in prior school years;

4. The amount of scholarship payments made for tuition, stipends, and other expenses, in the aggregate and at each educational institution for the reporting year and for prior school years;

5. The number and type of health professions training of individuals who have breached the scholarship contract;

6. The educational institutions attended by individuals who have breached the scholarship contract;

7. The amounts for which individuals who have breached the scholarship contract are liable to the U.S.;

8. The extent to which individuals who have breached the scholarship contract have paid the amounts for which they are liable to the U.S.;

9. The basis for the decision of individuals who have breached the scholarship contract; and

10. The effectiveness of the Secretary in recruiting health professionals to participate in the scholarship program; and in encouraging and assisting such professionals to provide primary health service to HPSAs after they have completed their period of obligated service under the program.

Section 338B(i) requires an annual report for the previous fiscal year that includes:

1. The total amount of the loan payments made under the Loan Repayment Program;

2. The number of applications filed;

3. The number and type of health professions training of individuals receiving loan repayments;

4. The educational institutions at which such students are receiving their training;

5. The total amount of the indebtedness of such individuals for educational loans as of the date on which the individuals became participants in such program;

6. The number of years of obligated service specified for such individuals in the initial contracts, and, in the case of individuals whose period of such service has been completed, the total number of years for which the individuals served in the Corps;

7. The number and type of health professions training of individuals who have breached the contract with respect to: the educational institutions with respect to which payments have been made or were to be made under contract; the amounts for which the individuals were liable to the U.S. under section 338E; the extent of payment by the individuals of such amounts; and if known, the basis for the decision of the individuals to breach the contract; and

8. The effectiveness of the secretary in recruiting health professionals to participate in the Loan Repayment Program; and in encouraging and assisting such professionals to provide primary health service to HPSAs after they have completed their period of obligated service under the program.

Section 338H(a) requires an annual report to the Committees on Labor and Human Resources (Senate), Energy and Commerce (House) and Appropriations (House and Senate) on::

1. The number of health care providers who will be needed for the NHSC during the five fiscal years beginning after the date the report is filed; and

2. The number of: scholarships the secretary proposed to provide under the Scholarship Program during such five fiscal year; the individuals for whom the secretary proposes to make loan repayments under the Loan Repayment Program during such five fiscal years; and the individuals who have no obligation and who the secretary proposes to have as members of the NHSC during such five fiscal years.

Although not a report requirement, the NHSC has added the following information because the State Loan Repayment Program also provides services to residents of HPSAs:

The number of providers the secretary proposes to fund through grants to states under the State Loan Repayment Program during such five fiscal years.

Source: Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Bureau of Primary Health Care, National Health Service Corps, Report to the Congress for Years 1990-1994.

APPENDIX I-F. PROGRAM DESCRIPTIONS: ILLINOIS AND NEW JERSEY

The Medical Student Scholarship Program (MSSP), enacted into law in 1977, awards scholarships to state residents attending medical schools in Illinois. The program has undergone many changes throughout the years. Most significantly, the Center for Rural Health which administers the program has tightened the penalties for participant noncompliance. If a participant fails to practice in an underserved area, he/she now must pay three times the amount or 300 percent of the scholarship received. The State also has the ability to sanction the renewal of a recipient's license if he/she fails to meet their service obligation and pay penalties.

To measure the effects of these changes and the program's overall effectiveness, the program has been required, by state law, to be evaluated annually since the 1984-1985 academic year. Each year, the program administrator updates information on the number of students receiving new and continuing scholarships; program expenditures and the fiscal history of the program; the number of scholarships by public and private medical schools; the ethnicity and gender of recipients; retention rates; the recipients' medical specialty and geographic distribution; the recipients' practice location; the type of high school of those serving beyond obligation; the number of academic failures; monetary repayment; and the number of buyouts by school.

This information is collected by mailing surveys every six months on prepared forms to program participants that include students, residents and those in practice. The program administrator uses Data Ease, a software package, to enter the data, but he does not recommend it to other administrators. The evaluation takes only about two weeks of his time because he simply has to update the information in the report each year.

By formally evaluating the program each year, the administrator has shown that these program modifications have helped make the program more successful. Funds for the program were renewed in 1985 after being suspended for four years. The evaluation is now showing signs that the program is working. In the first year of the program, 75 percent of the recipients did not complete their medical education. Now 64 percent of the recipients stay at least one year beyond their obligation period.

In 1993, the New Jersey Department of Health awarded MRH Evaluations, Inc. the contract to evaluate the effectiveness of the New Jersey Primary Care Physician and Dentist Loan Redemption Program (LRP) which was created in 1991. The LRP evaluation was part of a comprehensive review of several new health initiatives that were authorized by the state legislature.

After being in operation for 18 months, MRH Evaluations measured LRP's effectiveness in recruiting qualified providers, whether LRP reflected "best practice" for recruiting physicians and dentists to work in underserved areas; whether LRP providers were placed in areas of identified need; changes in patients' access to primary care as a result of service dispensed by the LRP providers; patients' and providers' satisfaction with the LRP; and providers' sensitivity to their community's cultural, ethnic, racial and socioeconomic characteristics.

MRH Evaluations used several quantitative and qualitative strategies to collect data to document the LRP's operating features, the perceived satisfaction of those involved in the program and the program's impact. Specifically, researchers documented the following programmatic information: how providers learned about the LRP, how practice sites learned about the LRP, LRP recruitment practice, LRP default provisions, LRP loan amounts, LRP practice sites, patient populations served by practice sites, sources of income for practice sites, characteristics of non-LRP Medicaid providers, non-LRP providers by Medicaid claims, providers' ratings of LRP features, providers' level of satisfaction regarding placement, providers' experiences prior to LRP participation and providers' professional objectives.

Base line information was obtained about the providers and practice-sites through surveys and existing program records. In-depth information was obtained through interviews of six practice sites, three providers and the staffs of the New Jersey Departments of Health and Higher Education, as well as LRP staff.

The evaluation concluded that the LRP has accomplished many of its objectives. Overall, practice sites, providers and their patients were satisfied with the LRP. In addition, the report lists a number of recommendations. Many of

these recommendations have been incorporated into a proposal to the Governor. The program administrator hopes that these recommendations will be implemented in the near future.

APPENDIX II-A. STATE HEALTH PROFESSIONS EDUCATION LEGISLATION, 1985-1993

STATES	HEALTH PROFESSIONS EDUCATION INITIATIVES 1. Create/expand community-based family practice residences 2. Quotas/goals for graduating primary care professionals 3. Reform Graduate Medical Education financing to support primary care education 4. Strengthen primary care exposure in undergraduate curriculum 5. Expand community-based training in Medically Underserved Areas (MUAs) 6. Preferential admissions of minorities and students from MUAs 7. Create/expand advanced practice nurse & physician assistant training programs 8. Create/increase stipends for primary care residents and preceptors in MUAs							
	1	2	3	4	5	6	7	8
ALABAMA	1990				1990			1990
ALASKA	1992			1987				
ARIZONA								
ARKANSAS	1989			1989	1989	1993		1993
CALIFORNIA	1988, 1992, 1994	1994			1988, 1992	1988, 1992	1988, 1993	
COLORADO								
CONNECTICUT								
DELAWARE								
D.C.								
FLORIDA	1988							
GEORGIA								
HAWAII	1993				1993		1993	
IDAHO								
ILLINOIS	1990, 1992, 1993	1992, 1993		1992, 1993	1992	1989	1992	
INDIANA	1989							
IOWA								1989
KANSAS								1992
KENTUCKY	1990			1990	1990		1990	
LOUISIANA	1990			1993	1990			1990
MAINE	1987, 1991, 1992		1992	1992	1987, 1991, 1992			1991
MARYLAND				1993	1993			
MASSACHUSETTS								
MICHIGAN								
MINNESOTA	1992	1992		1992, 1993	1992, 1993		1992, 1993	1990
MISSISSIPPI							1991	
MISSOURI	1987			1993	1987			
MONTANA							1993	

STATES	HEALTH PROFESSIONS EDUCATION INITIATIVES 1. Create/expand community-based family practice residences 2. Quotas/goals for graduating primary care professionals 3. Reform Graduate Medical Education financing to support primary care education 4. Strengthen primary care exposure in undergraduate curriculum 5. Expand community-based training in Medically Underserved Areas (MUAs) 6. Preferential admissions of minorities and students from MUAs 7. Create/expand advanced practice nurse & physician assistant training programs 8. Create/increase stipends for primary care residents and preceptors in MUAs							
	1	2	3	4	5	6	7	8
NEBRASKA	1993	1993						1993
NEW HAMPSHIRE								
NEW JERSEY								
NEW MEXICO	1991, 1992				1992		1991, 1993	
NEW YORK	1993		1992	1993	1993			1988, 1992
NEVADA	1989				1989			
N. CAROLINA	1993	1993						
N. DAKOTA								
OHIO								
OKLAHOMA								
OREGON							1991	
PENNSYLVANIA				1992	1992			
S. CAROLINA	1993				1993			
S. DAKOTA	1992, 1993			1993	1992			1992
TENNESSEE		1993						
TEXAS	1993			1989	1989	1993		1989
UTAH								
VERMONT	1992				1992			
VIRGINIA				1991, 1992	1992			1992
WASHINGTON	1993	1993		1993	1993			
WEST VIRGINIA	1991			1991	1991	1991		
WISCONSIN	1992, 1993	1993	1992	1993	1992	1993		
WYOMING								
TOTAL	25	8	3	17	23	6	9	12

Source: Intergovernmental Health Policy Project, National Conference of State Legislatures, November 1996

APPENDIX II-B. EVALUATIONS OF RECENT STATE HEALTH PROFESSIONS EDUCATION REFORMS

STATES	STRATEGY EVALUATED	NATURE OF EVALUATION(S)	EVALUATOR	YEAR(S) PERFORMED
ARKANSAS	Increase/improve education of primary care professionals	Examine effectiveness of state Area Health Education Centers (AHEC) program to create and expand community based family medicine residencies in underserved areas and strengthen exposure to primary care careers in undergraduate curriculum	University of Arkansas for Medical Sciences	1996
DELAWARE	State's purchase of medical school admissions slots from Jefferson Medical College in Philadelphia, PA	Measure scope of state's primary care needs, existing medical education opportunities for state residents. Conduct systematic review of current relationship with Jefferson and examine alternatives.	Delaware Health Care Commission	1996
FLORIDA	Education and retention of family practice physicians	Document and evaluate instate retention rates of family practice residents; Analyze efforts by family practice residencies to recruit minority residents	Family Practice Physician Recruitment and Retention Advisory Group, State Agency for Health Care Administration	1995
ILLINOIS	Increase and sustain support for primary care graduate medical education programs	1) Characteristics of state's primary care graduate training programs and trainees, graduate career decisions and paths; 2) Problems/issues in financing primary care graduate medical education: assessing the state's role	Chicago Area Primary Care Consortium; University of Illinois at Chicago Health Policy Center; Illinois Academy of Family Physicians; Illinois Health Care Reform Task Force	March 1994; November 1994; January 1996; August 1996
IOWA	Support community-based family practice residencies	Documentation and analysis of trends of medical students selecting family practice residencies in Iowa and remaining in practice in the state	University of Iowa College of Medicine	1996; ongoing
KENTUCKY	Rural eastern Kentucky community-based family medicine, nursing and allied health professions training programs	Rate of placement in rural eastern Kentucky and rural areas elsewhere of UKCRH graduates	University of Kentucky Center for Rural Health	1996; ongoing
NEBRASKA	Increase primary care training at the undergraduate and graduate levels	Document progress in the number of students choosing primary care residencies and in various undergraduate and graduate curriculum changes (e.g., primary care clerkships and rural rotations) to enhance primary care education	University of Nebraska Medical Center; Creighton University School of Medicine	1995;1996

STATES	STRATEGY EVALUATED	NATURE OF EVALUATION(S)	EVALUATOR	YEAR(S) PERFORMED
S. DAKOTA	State support for family practice residencies	Study of residency program funding and review of the effectiveness of existing recruitment and retention programs	Governor's Task Force	1996
TEXAS	State mandate to require clerkships in family medicine for all third-year medical students	Each medical school assessed to determine if state resources were spent to fund a third year clerkship	Office of the State Auditor, State of Texas	1993
	Increase production of primary care physicians	Documentation and analysis of the role of primary care in undergraduate and graduate medical education	Texas Medical Association	1995
WASHINGTON	To alleviate primary care physician shortages, train and distribute more medical students and residents in primary care into rural and medically underserved communities.	1) Overview of current primary care physician and midlevel practitioner supply in practice and number of recent graduates of primary care education programs by location of practice; 2) Influence of educational programs and role models on student's primary care career choice; 3) Development of specialty preference inventory for admissions procedures; 4) Evaluating minority enrichment programs; 5) Quality and cost of ambulatory education	University of Washington School of Medicine	1993; updated 1995; ongoing

Source: Intergovernmental Health Policy Project, National Conference of State Legislatures, November 1996

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