REPORT TO THE
DELAWARE HEALTH CARE COMMISSION

DELAWARE INSTITUTE OF MEDICAL EDUCATION AND RESEARCH
DELAWARE INSTITUTE FOR DENTAL EDUCATION AND RESEARCH
DELAWARE STATE LOAN REPAYMENT PROGRAM

STUDENT PARTICIPANT AND LOAN REPAYMENT PROGRAM PARTICIPANT TRACKING REPORT

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[Deliverable #1]

INTRODUCTION

The State of Delaware works continually to support the health care needs of the population of the State. The Delaware Health Care Commission (DHCC) leads and coordinates that work. As part of that effort, the State wishes to develop an appropriate supply of health care providers to assure access to care. Primary among its health care workforce interests is the supply of physicians, especially primary care physicians.

In that regard, the State operates several programs that are intended to improve the supply of physicians and non-physicians. The Delaware State Loan Repayment Program (SLRP) was established to enhance recruitment and retention of physicians and others directly by paying for some or all of approved providers' education debt in exchange for the providers' service in designated underserved areas of the State. The Delaware Institute of Medical Education and Research (DIMER) and the Delaware Institute for Dental Education and Research (DIDER) seek to address the absence of a medical school and dental school in the State by providing improved access to medical school training and dental school training for Delaware residents at partner professional schools in nearby Philadelphia. In addition, it is hoped that DIMER and DIDER improve the likelihood that participating students will return to the State to practice and thereby contribute to the physician and dentist workforce supply.

The DHCC has commissioned this project to gather the available data on the operations of the three programs and provide an assessment of their effects on health care workforce supply since their respective beginnings. The resulting report would present information on the program participants and whether they became part of the provider workforce in Delaware with appropriate accompanying analyses. This report and the accompanying data files provide that information plus perspectives for future policy and program development.

In a separate part of this project, the Commission has authorized the gathering of information on health care workforce recruitment issues, related health care reform issues, and alternative strategies to support optimal workforce supply for access to health care. In addition, the programs of other states to address issues associated with not having an in-state medical school or in-state dental school are presented.

BACKGROUND

In this section are descriptions of the DIMER, DIDER, and SLRP programs taken primarily from the State's information regarding them.

The Delaware Institute of Medical Information and Research (DIMER)

DIMER is described by the State as "providing opportunities for Delaware residents

to receive a medical education".[1]

> "Created in 1969 as an alternative to a state-supported medical school, DIMER provides an opportunity for Delaware residents to obtain a high-quality medical education.
>
> "Through DIMER, Delaware has a relationship with Jefferson Medical College of Thomas Jefferson University, Philadelphia, PA, resulting in Jefferson Medical College functioning as Delaware's medical school. Through the program, the state of Delaware provides payment to Jefferson Medical College to reserve at least 20 admissions each year for Delaware residents. In addition, DIMER has a relationship with the Philadelphia College of Osteopathic Medicine (PCOM), Philadelphia, PA. Through that program, PCOM reserves at least 5 admissions each year for Delaware residents and functions as Delaware's school of osteopathic medicine.
>
> "Eligible applicants must be legal residents of the state of Delaware and meet the premedical academic requirements of Jefferson Medical College and PCOM respectively. Bachelor's degrees from any accredited college or university in the United States are accepted."[2]

A more detailed description of the program's inception and history is provided in the DIMER 2011 Annual Report, as follows:

> "The Delaware General Assembly in 1969 created the Delaware Institute of Medical Education and Research as an alternative to a state medical school. At that time there was a general shortage of physicians throughout the country, and states were moving to address this problem by establishing their own medical schools. In Delaware, however, there was a concern that such an undertaking was not financially feasible. Instead, Delaware created a public/private board to develop legal agreements, organize cooperative arrangements and disburse appropriated State funds to resolve this and other problems relative to medical education in Delaware.
>
> "The plan was to reserve seats for Delaware students in a major nearby medical school. At issue was the fact that most medical schools receive financial support from their home state, and in return accept a preponderance of students from that state. As such, Delaware residents were always "out of state" applicants and not given admission preferences usually extended to in-state residents.

[1] http://dhss.delaware.gov/dhss/dhcc/dimer.html, October 2, 2012.
[2] Ibid.

"The DIMER Board, on behalf of the State of Delaware, in 1970 established an agreement between DIMER, Wilmington Medical Center (now Christiana Care Health Services), the University of Delaware and Jefferson Medical College of Thomas Jefferson University, Philadelphia, Pennsylvania. Jefferson Medical College agreed to accept at least 20 Delaware residents each year who met the same academic requirements as other students, resulting in Jefferson functioning as Delaware's medical school. Premedical programs at the University of Delaware were strengthened to prepare aspiring medical students for medical school admission.

"During the early 1990s, the Delaware General Assembly asked DIMER to create incentives to encourage students attending Jefferson through DIMER to return to Delaware to practice primary care medicine. In Fiscal Year 1993, the loan program was converted from a need-based program to one based on service repayment. Under the program, students admitted to the DIMER program who were interested in returning to Delaware to practice primary care medicine applied for funding assistance. The loans were repaid with one year of medical practice in a designated primary care field for each year the funds were accepted.

"In 1995, the Delaware General Assembly Joint Sunset Committee asked the Delaware Health Care Commission to conduct the first comprehensive review of DIMER since its creation. The General Assembly asked the Commission to review DIMER's purpose as it relates to the health care needs of all Delawareans, examine current training and higher education needs, consider ways such needs might be more effectively met and consider DIMER's activities in light of state needs and priorities.

"The Commission, through a Primary Care Committee, conducted the review and in 1996 submitted its findings and recommendations to the Joint Sunset Committee. The report concluded that the original purpose of DIMER as an alternative to a state-sponsored medical school was sound. While some of its original purposes continued to reflect recommended activities for the future, the report noted that others no longer had practical application. The review and recommendations resulted in enactment of Senate Bill 418.

"The statute reaffirmed the original purpose of DIMER as an alternative to a state-sponsored medical school and expanded the Board to reflect its statewide responsibilities.

"One of the new opportunities presented by the statute was for the new Board to work with the Commission to identify state health care needs and craft programs or make recommendations to address them. The Board also has the authority to develop recruitment programs to attract medical school applications from minorities, residents of rural and under-served areas, and pre-medical students interested in practicing community and rural medicine.

"DIMER also was charged with establishing a standing *Committee on Rural Health* to ensure the unique health care needs of rural Delaware are addressed in DIMER activities. The Committee released its first report and recommendations in 1999.

"Placing the administration of DIMER in the offices of the Delaware Health Care Commission recognized the similar missions of the two agencies with regard to the state's efforts to meet its health care needs. It also addressed DIMER's need for a state agency "home" and accompanying resources such as staff and funding for supplies.

"In 1999, new language in the budget epilogue called on DIMER to enter into discussions with the Philadelphia College of Osteopathic Medicine (PCOM) to allow the school to function as Delaware's school of osteopathic medicine. In 2000, this goal was accomplished. The measure also, for the first time, allocated funds for DIMER to recruit physicians, either medical doctors or doctors of osteopathic medicine. Recruitment tools include loan repayments. The first physicians were recruited to Delaware through the new State Loan Repayment Program in 2001. …

"In 2001, the budget epilogue called on DIMER to restructure the grant/loan program in effect since 1993 into either a scholarship program or a loan program with more favorable tax consequences than the previous program. As a result, the former grant/loan program was phased out. A new program was implemented that provides Delaware residents admitted to Jefferson Medical College and PCOM with tuition supplements and an opportunity to compete for need based scholarships."[3]

The Delaware Institute for Dental Education and Research (DIDER)

DIDER was established by statute in 1981 initially to support the general dental practice residency program at Christiana Care Health System. This was determined to be important due to relatively unique requirement in the Delaware dental practice code that requires a one year of residency training as a requirement for licensure to practice dentistry in Delaware.

In 2001, legislation changed the administration of DIDER to be placed within the offices of the Delaware Health Care Commission and defined its purposes as "to support, encourage and promote:

[3] Delaware Health Care Commission, Delaware Institute of Medical Education and Research, Annual Report, January 2011.

1. Accredited general practice residencies in dentistry;
2. Expansion of opportunities for Delaware residents to obtain dental education and training at all levels;
3. A strengthening of the factors favoring the decision of qualified dental personnel to practice in Delaware, including, but not limited to, tools such as loan repayment programs;
4. Dental needs of the community at large and particularly those who do not have ready access to dental care;
5. Expansion of opportunities for Delaware residents to obtain training at a reasonable cost;
6. Incentives for qualified personnel in the dental professions to practice in Delaware;
7. Support of graduate and postgraduate training programs, including emphasis on those programs targeted to meet the state's health care needs.

"In 2005, the DIDER Board identified access to dental school as a key priority in achieving its mission, and began reviewing options for providing opportunities for Delawareans to attend dental school. Using the model developed by the Delaware Institute for Medical Education and Research (DIMER), the Board conducted discussions with several dental schools in the region and Temple University emerged as the ideal partner.

"In 2006, DIDER signed an agreement with the Maurice H. Kornberg School of Dentistry at Temple University which guarantees admission to six qualified students from Delaware in each entering class of dental students. In 2009, the partnership with Temple University guarantees admission to five qualified students from Delaware in its entering class of dental students. This relationship provides Delaware residents with an opportunity to receive quality education and training at a highly regarded regional dental school. The partnership also promotes opportunities for participating dental students to complete externship and residency training programs at facilities in Delaware.

"… Additionally, through the generosity of the Delaware State Legislature, DIDER [provides] funding each academic year for tuition stipends to be divided among the Delaware residents who attend Temple. … each student from Delaware [receives], at a minimum, a tuition stipend of $1,000 per academic year. Any remaining funds [are] allocated based on financial need …".[4]

[4] http://dhss.delaware.gov/dhss/dhcc/dider.html, October 2, 2012.

Delaware State Loan Repayment Program (SLRP)

The SLRP was established to recruit health professionals to areas of the state that have been identified as having an undersupply of health care providers by the Delaware Health Care Commission (DHCC).

Through this program, the DHCC, in conjunction with the Higher Education Commission, "is authorized to make awards for repayment of outstanding government and commercial loans incurred during undergraduate or graduate education (i.e. principal, interest and related expenses for tuition and educational costs).

> "Applications from practice sites seeking to recruit and hire a clinician under this loan repayment program are also accepted. Practice sites include public or private non-profit settings and private practices (solo or group). Loan repayment funds may also be awarded to assist with loans for capital/equipment expenditures to establish a practice in an area of high need. …
>
> "Health professionals participating in this program must provide health services in a practice setting approved by the Delaware Health Care Commission. Initial contracts may be signed for a minimum of two (2) years and maximum of three (3) years. Participants may re-apply for contract extensions in one-year increments, not to exceed a total of four (4) years of loan repayment. Extensions will be granted at the discretion of the Loan Repayment Committee and are contingent upon the availability of funds. …".[5]

The following health care provider professions are eligible:

Advanced Degree Practitioners

- Primary Care Physicians (MD and DO)
  - Family Medicine
  - Osteopathic Practitioners
  - Internal Medicine
  - Pediatrics
  - Obstetrics & Gynecology
  - General and Pediatric Psychiatry
- Medical Oncologists
- General Practice Dentists (DDS and DMD)

[5] http://dhss.delaware.gov/dhss/dhcc/slrp.html, October 2, 2012.

Mid-Level Practitioners

- Registered Clinical Dental Hygienists
- Primary Care Certified Nurse Practitioners
- Certified Nurse Midwives
- Primary Care Physicians Assistants
- Licensed Clinical Psychologists
- Psychiatric Nurse Specialists
- Licensed Clinical Social Workers
- Licensed Prof. Counselors of Mental Health
- Licensed Marriage & Family Therapists[6]

METHODOLOGY

In order to assess the effectiveness of the DIMER, DIDER, and SLRP programs on achieving professional school admission and enhancing health care provider workforce supply, the basic methodology for this report was to identify the participants in the programs and track their professional practice careers. The participants would be identified from various sources as described below. Whether or not the participants became part of the Delaware health care provider workforce was determined based on having a license to practice their profession in Delaware and review of surrogate indicators for active patient care activity, participation in the State's health information exchange, the Delaware Health Information Network (DHIN), and public media information.

This project originally sought to collect very detailed information on the DIMER and DIDER programs' participants, their training, their career paths, and their eventual professional practice. Ideally, there would have been complete demographic data; pre-college, college, professional school, and post-graduate training data; professional specialty and career data; and current practice data on all the individuals.

However, the data gathering was challenged by several factors:

- No known designation of responsibility for data management over the history of the programs.
- No known plan for data recording and maintenance for the programs.
- Changing purposes and operations of the DIMER and DIDER programs

[6] Ibid.

over their history.

- Changing organizational responsibility for the DIMER and DIDER programs over their history. (The programs are currently under the direction of the Delaware Health Care Commission, since 2000. Previously, the programs were managed at Christiana Care Health System with involvement by the Academy of Medicine.)
- Ambiguity about the purposes of DIMER and DIDER relative to health care provider recruitment versus access to professional school admission.
- Actual record keeping and data storage were performed inconsistently over the programs' history and among the organizations maintaining the data.

As a result, the data that were located were in multiple locations and were, to some extent, inconsistent.

- Christiana Care Health System (CCHS) possesses lists of Jefferson Medical College/Thomas Jefferson University (TJU) DIMER students from before 2000. The Delaware Health Care Commission (DHCC) possesses student lists for the period after assuming responsibility for DIMER in 2000. TJU maintains a database on its students including whether a student is a DIMER participant. There were DIMER participants listed by CCHS and DHCC that were not noted by TJU as being DIMER participants and vice-versa.
- DHCC possesses lists of DIMER students at Philadelphia College of Osteopathic Medicine (PCOM) and PCOM maintains records that include DIMER participation status. Similar to the situation with TJU, DHCC's list includes persons not noted as being DIMER participants by PCOM and vice-versa.
- No DIDER participant lists were located at CCHS or DHCC. Temple University Kornberg School of Dentistry (TUKSOD) maintains a database of its students. The database does not specifically note DIDER participation. The TUKSOD's database listing of students' home state of residence upon application was the only source identified to determine DIDER participation.
- DHCC was the only identified source of SLRP data.
- The various data sources maintain different data elements. Demographic data availability varied and data related to post-graduate training and career experience varied.

The computerized database maintained by the Delaware Division of Professional Regulation provided an absolute identification of the presence or

absence of a professional license to practice, though only for those persons who had a license at any time since the Division created that database in 2000. (Inasmuch as the earliest DIMER participant would have been in the TJU entering class in 1970 at approximately age 23, that would mean they were approximately age 53 in 2000 with another dozen or so years of practice. Therefore, it is highly likely that almost all of the DIMER participants who ever had a Delaware license of more than a brief duration were included in the ProReg database established in 2000.) However, a person with a license is not necessarily providing patient care in Delaware. Reasons include:

- Having a license in multiple states, but providing patient care only or primarily in another state.
- Having a Delaware license in order to obtain medical staff membership at a Delaware hospital, although patient care activity is primarily in another state.
- Having a license, but working in a non-patient care position in a health care facility, insurance company, research organization, commercial enterprise, etc.
- Having a license, but having retired from active patient care activities.
- Having a license, but having moved active practice out of the State.

Being a DHIN participant can indicate active patient care activity, but is not an absolute determinant. If a provider is a DHIN participant, it is known that he/she has used the system at least once. By itself, participation is not necessarily an indicator of professional practice in the State. Conversely, a licensed provider who is not a DHIN participant may or may not be a provider of patient care in the State.

Public media such as the Internet and telephone directories can provide some information about possible practice in the State, but are not definitive in determining Delaware practice for every participant with a Delaware license.

There was enough data available from the available sources to accomplish the purposes of the project. However, it is important for the reader to be aware of the methods, assumptions, and limitations that were used to assemble the DIMER, DIDER, and SLRP participant data files and perform the analyses:

- If a student was identified as a DIMER or DIDER participant by <u>any</u> source, the student was included in the data files for this report as a participant.

- Conflicting data element values or spellings were resolved in favor of the more frequent value or spelling or the likely more authoritative source, as determined by the author.
- Absent values were not presumed, except entry of county names where that information could be determined with certainty from the remainder of the address.
- Demographic information and training information were available inconsistently. The data are included in the output data tables when available from the respective sources and absent when not.
- No source possessed career practice information before the individual's current location and therefore those data are not provided.
- In the absence of absolute practice location information, DHIN participation and public media information are presented as surrogates and may be interpreted by the reader as desired.

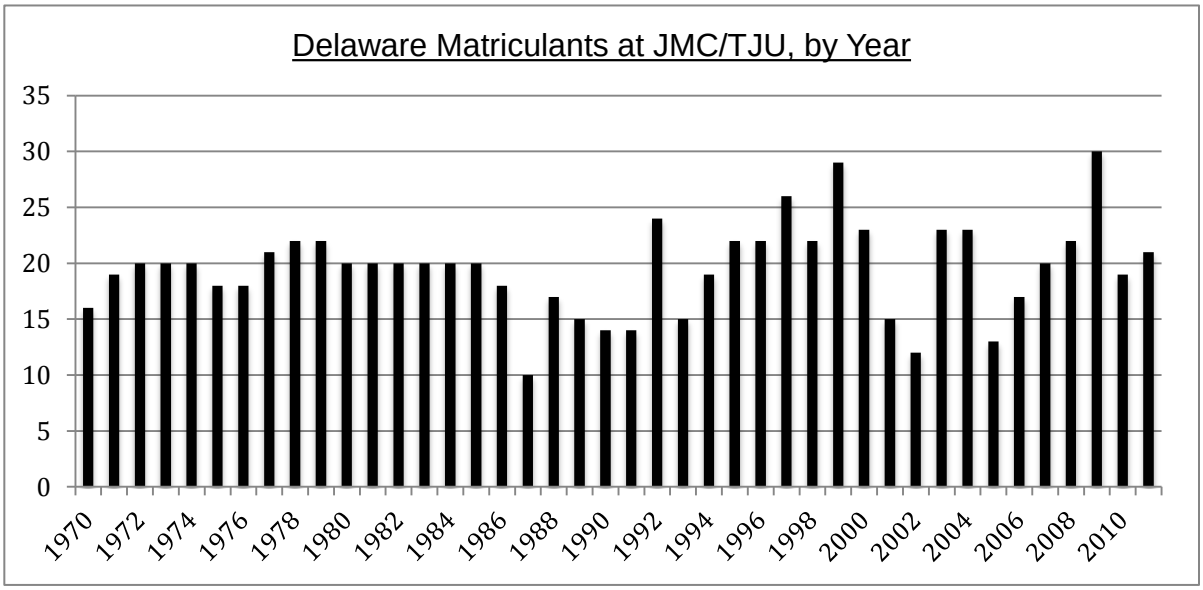
FINDINGS

The DIMER program has been in operation since 1970 with TJU and since 2000 with PCOM. The respective agreements commit to the admission of 20 qualified Delaware residents to TJU and 5 qualified Delaware residents to PCOM. The DIDER program agreement with TUKSOD has been in operation since 2006 and provides for admission of 5 qualified Delaware residents.

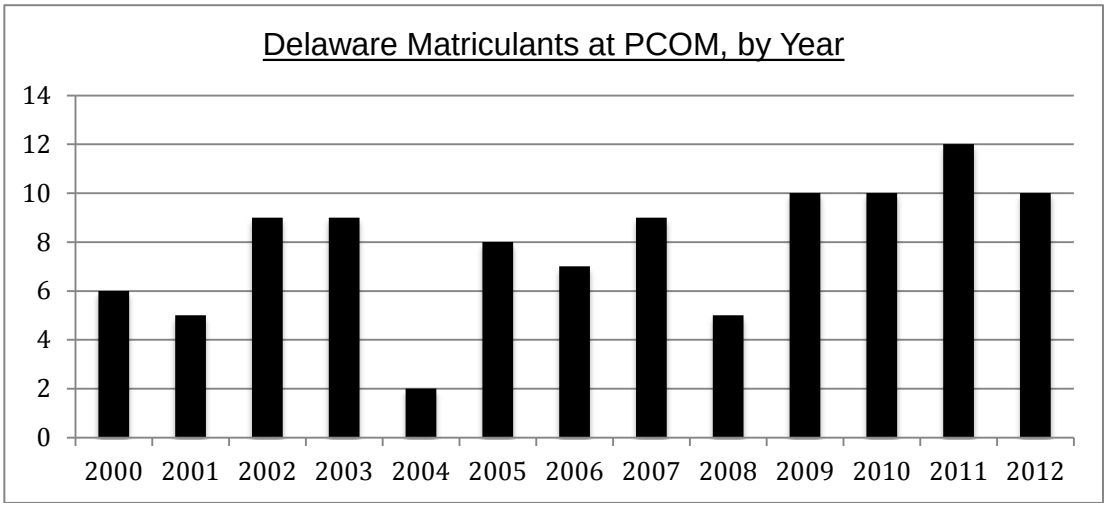
The actual experience of the number of matriculating students at each professional school is as follows:

- In the 42 years since the beginning of the DIMER agreement with TJU, 821 Delaware residents matriculated at Jefferson Medical College. The range of Delaware matriculants in any single year was a low of 10 to a high of 30. In 25 of the years, the number equaled or exceeded 20.
- In the 13 years of the DIMER agreement with PCOM, 102 Delaware residents matriculated. The range was a low of 2 persons and a high of 12 persons. In all but one year, the number equaled or exceeded 5. Of note, since 2009, the number has been 10 or higher, twice the number agreed upon.
- Since 2006, there were 40 Delaware resident matriculants at TUKSOD and ranged from 3 persons to 6 persons each year. In 3 of the 7 years of the agreement, the number DIDER students equaled 6.

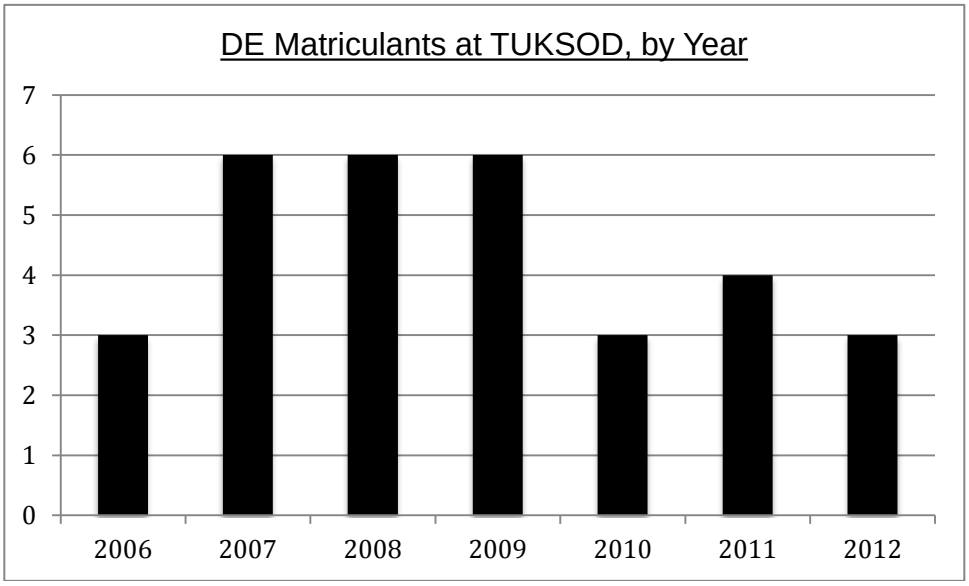
NUMBER OF MATRICULATING DELAWARE STUDENTS AT JEFFERSON MEDICAL COLLEGE - THOMAS JEFFERSON UNIVERSITY, BY ENTERING YEAR				
ENTERING YEAR	NUMBER		ENTERING YEAR	NUMBER
1970	16		1991	14
1971	19		1992	24
1972	20		1993	15
1973	20		1994	19
1974	20		1995	22
1975	18		1996	22
1976	18		1997	26
1977	21		1998	22
1978	22		1999	29
1979	22		2000	23
1980	20		2001	15
1981	20		2002	12
1982	20		2003	23
1983	20		2004	23
1984	20		2005	13
1985	20		2006	17
1986	18		2007	20
1987	10		2008	22
1988	17		2009	30
1989	15		2010	19
1990	14		2011	21



NUMBER OF MATRICULATING DELAWARE STUDENTS AT PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE, BY ENTERING YEAR	
ENTERING YEAR	NUMBER
2000	6
2001	5
2002	9
2003	9
2004	2
2005	8
2006	7
2007	9
2008	5
2009	10
2010	10
2011	12
2012	10



NUMBER OF MATRICULATING DELAWARE STUDENTS AT TEMPLE UNIVERSITY KORNBERG SCHOOL OF DENTISTRY, BY ENTERING YEAR	
ENTERING YEAR	NUMBER
2006	3
2007	6
2008	6
2009	6
2010	3
2011	4
2012	3



TJU: TJU matriculated 821 DIMER students since the beginning of the program in 1970 through the 2011 entering class. Of those 821, 29 students did not complete the program and 70 are still enrolled (2009, 2010, and 2011 entering classes). As a result, 722 have graduated. Seventy-two students are presumed to be still in GME training. That leaves approximately 650 DIMER students who have graduated, have finished their GME training, and are potentially in practice.

The location of initial graduate medical education (GME) training is known for 712 of the graduates and 166 (23.3%) received that training in Delaware.

Of the TJU DIMER graduates who have completed their GME, 224 (34.4%) possessed a Delaware license at some time since 2000; 110 (49.1%) of those graduates received their GME in Delaware and 114 (50.9%) received their GME in other states.

Of the 650 graduated and GME-trained students, 171 (26.3%) have an active Delaware license at this time; 86 of the 171 (50.3%) received their GME in Delaware and 85 (49.7%) received their GME in other states.

Of the 171 TJU DIMER graduates with active Delaware licenses, to determine those who are in active patient care practice, surrogate indicators are as follows:

- 101 are registered as participants in DHIN
    - 14 in Kent County (13.7%)
    - 72 in New Castle County (71.3%)
    - 15 in Sussex County (14.6%)
- 149 are indicated as being active practitioners on Internet sources
    - 14 in Kent County (9.4%)
    - 114in New Castle County (76.5%)
    - 21 in Sussex County (14.1%)

Using the number of 149 as the number of TJU DIMER participants actively practicing in Delaware, this is a rate of 18.1% of the total 821 participants, 20.6% of the 722 graduates, and 22.9% of those who have graduated and completed GME.

Summary TJU DIMER data follow:

TJU 1970 to 2011	
Number of DIMER Students	821
Number of DIMER Graduates	722
Number of DIMER Graduates/GME Complete	650
DIMER Graduates with GME in DE	166
DIMER Graduates with an Active DE License	173
DIMER Graduates Actively Practicing in DE	149

PCOM: Of the 102 DIMER students matriculated at PCOM since 2000, 2 did not complete the program and 42 are still enrolled. As a result, there were 58 graduates. Twenty-one PCOM DIMER students are presumed to still be in GME training, leaving 37 persons potentially in professional practice.

Of the 58 graduates, the location of their initial GME training is known for 46 of them. Nine of those 46 graduates (19.6%) received their initial training in Delaware.

Of the PCOM DIMER graduates who have completed their GME, 10 (27.0%) obtained a license to practice in Delaware. Five of those 10 received their initial GME training in Delaware; 5 received their post-graduate training in other states.

Of the 10 licensees, 9 have active licenses at the time of this report; the other individual had a license for approximately one year from 2010 to 2011.

With regard to actively practicing patient care in Delaware, all 10 licensees are found on the Internet to be or have been practicing in the State, including the individual whose license expired in 2011. Eight are practicing in New Castle County and 2 are practicing in Sussex County. Five are listed as DHIN participants and 5 are not.

Using the number of 9 as the number of PCOM DIMER participants actively practicing in Delaware currently, this is a rate 8.8% of the total 102 participants, 15.5% of the 58 graduates, and 24.3% of those have graduated and completed GME.

Summary PCOM DIMER data follow:

PCOM 2000 to 2012	
Number of DIMER Students	102
Number of DIMER Graduates	58
Number of DIMER Graduates/GME Complete	37
DIMER Graduates with GME in DE	9
DIMER Graduates with an active DE License	9
DIMER Graduates Actively Practicing in DE	9

TUKSOD: Of the 31 DIDER students admitted to TUKSOD since the beginning of the program in 2006, 15 were there for 4 years and all of those graduated. Five of the 15 graduates obtained a license to practice in Delaware and all 5 have active licenses at this time.

Of the 5 Delaware licensees, none are DHIN participants. Internet searches indicate that 2 practice in Delaware and 3 do not. One of the Delaware actively practicing dentists is in New Castle County and 1 is in Sussex County.

Using the number of 2 as the number of TUKSOD DIDER graduates practicing in Delaware, this is a rate of 6.5% of the total DIDER participants and 13.3% of the total graduates.

Summary TUKSOD DIDER data follow:

TUKSOD 2006 to 2012	
Number of DIDER Students	31
Number of DIDER Graduates	15
DIMER Graduates with DE License	5
DIMER Graduates Actively Practicing in DE	2

SLRP: The State Loan Repayment Program made 78 awards that were actually implemented (not declined or otherwise not begun). Of the 78, the award contract term has been completed for 60, 14 are still in progress, and 4 were terminated when the recipient left the State during the term. The completion of 60 out of the 64 that are not still in progress is a completion rate of 93.8%, which compares very favorably with the 71% completion percentage noted in one academic study.[7]

Of the 74 awards made that were not declined or terminated, the number of awards made and implemented varied widely each year since the program beginning in FY2001. There was a low of 2 awards to a high of 15 awards. Physicians were the focus of the awards, receiving 44 (59.5%) of the 74 awards, and dentists receiving the next highest number with 14 (18.9%). Of the physicians, family practitioners and obstetrics/gynecology specialists received the most awards with 14 (18.9%) and 12 (16.2%) respectively.

Of those recipients who completed their service requirement, 81.7% remained to practice in the workforce supply shortage areas; 18.3% left the State afterward. Retention of physicians and dentists were both strong at 72.2% and 100.0%, respectively. Details of retention by category of provider are presented below. Although it is known that there are 81 loan repayment/forgiveness programs in the U.S.[8], there are no known bases to compare the "productivity" of the Delaware SLRP with them.

Summary data follow:

[7] BMC Health Serv Res. 2009 May 29;9:86. "Financial incentives for return of service in underserved areas: a systematic review". Bärnighausen T, Bloom DE. Africa Centre for Health and Population Studies, University of KwaZulu-Natal, Mtubatuba, South Africa. tbaernig@hsph.harvard.edu.

[8] https://services.aamc.org/fed_loan_pub/index.cfm?fuseaction=public.welcome&CFID=1660045&CFTOKEN=34526630, August 17, 2012.

DELAWARE STATE LOAN REPAYMENT PROGRAM					
FY	LOAN AWARDS*	MD/DO	DDS/DMD	Mid-Level Practitioner	Capital
2001	1	1			
2002	1		1		
2003	3	2	1		
2004	2	1	1		
2005	3	3			
2006	5	4	1		
2007	8	4	1	2	1
2008	13	7	2	4	
2009	15	6	5	4	
2010	11	8	1	1	1
2011	8	5	1	1	1
2012	4	3		1	
TOTAL	74	44	14	13	3
* Not including awards terminated or declined or award extensions					

DELAWARE STATE LOAN REPAYMENT PROGRAM																
		Physicians									Mid-Level Practitioners					
FY	LOAN AWARDS*	Family Medicine	Internal Medicine	Med/Peds	Pediatrics	Ob/Gyn	FamMed/Ob	Oncologist	Psychiatrist	DDS/DMD	Certified Nurse Practitioner	Certified Nurse Midwife	Family Nurse Practitioner	Physician Assistant	Registered Dental Hygienist	Capital
2001	1					1										
2002	1									1						
2003	3			1			1			1						
2004	2					1				1						
2005	3	1	1			1										
2006	5	1			1	2				1						
2007	8	2				1		1		1	2					1
2008	13	2	1			4				2	1	3				
2009	15	4	1		1					5	1	1	1	1		
2010	11	3	2		2	1				1	1					1
2011	8	2	1		2					1	1					1
2012	4	1		1					1						1	
TOTAL	74	16	6	2	6	11	1	1	1	14	6	4	1	1	1	3
* Not including awards terminated or declined or award extensions																

Retention of SLRP Recipients after Completion of Service, FY2001-2012					
	Completed Service				
	Stayed		Left		Still in
Provider Type	Number	Percent	Number	Percent	Progress
Physician	26	72.2%	10	27.8%	8
Dentist	13	100.0%	0	0.0%	4
Nurse Practitioner	5	83.3%	1	16.7%	1
Nurse Midwife	4	100.0%	0	0.0%	0
Physician Assistant	1	100.0%	0	0.0%	0
Dental Hygienist	0		0		1
TOTAL	49	81.7%	11	18.3%	14

CONCLUSIONS

The primary purpose of the DIMER program is to provide improved access to medical school training for Delaware residents. The purposes of the DIDER programs include providing improved access to dental school training, supporting dental residencies, and supporting qualified dental personnel to practice in Delaware. An unofficial expectation of the DIMER and DIDER programs is that they will enhance the decisions of newly trained physicians and dentists to practice in Delaware. The purpose of the SLRP program is to enhance recruitment of selected health care professionals to underserved areas of the State. The purpose of this project was to collect information on the participants of the DIMER, DIDER, and SLRP programs to assess their effectiveness relative to those goals.

The DIMER agreement with TJU calls for 20 seats each year to be provided for qualified Delaware residents. In the 42 years of the TJU DIMER program, 821 Delaware residents matriculated at Jefferson Medical College, an average of 19.5 per year. Although the range of Delaware matriculants was a low of 10 to a high of 30, in the past 5 years the average has been 22.4 persons, in the past 10 years the average has been 20.0 persons, and in the past 20 years the average has been 20.9 persons. These data appear to support that the TJU DIMER program is meeting its goal of 20 seats for Delaware residents.

In the 13 years of the DIMER program, 102 Delaware residents matriculated at PCOM, an average of 7.8 per year. Although the range is a low of 2 to a high of 12 Delaware matriculants, the low year of 2 appears to be an aberration with every other year at or exceeding the agreement target of 5 seats. In the last 5 years, the average is 9.4 matriculants. These data appear to support that the PCOM DIMER program is meeting its goal of 5 seats for Delaware residents per year.

In the 7 years of the DIDER agreement with TUKSOD, the average number of Delaware matriculants is 4.4. The range is a low of 3 persons to a high of 6 persons.

The program achieved the goal of 5 matriculants in only 3 of the 7 years of operation. In the past 3 years, the average has been 3.3 persons. These data appear to indicate that the program generally is not meeting its goal of 5 Delaware matriculants per year.

Determining the effects of the DIMER and DIDER programs on recruitment is less precise, but it is possible to determine the general effect. The number of graduates of each of the 3 professional schools is known and the number of persons who have completed required GME can be estimated with confidence. The number of persons who have a Delaware license is known. The number of those licensees who are actively practicing in Delaware can be estimated, though less confidently. For purposes of this study, the number of persons with active licenses to practice in Delaware who are actively engaged in patient care are those who are either listed as a participant in the Delaware Health Information Network (DHIN) and/or are listed on the Internet or in telephone directories as engaged in patient care services.

Using the above methodology, it was determined that there are149 TJU DIMER participants who are in active patient care practice in Delaware. This is 22.9% of the estimated 650 TJU DIMER participants who have graduated and completed their GME. Using the same methodology, there were 9 PCOM DIMER participants in active patient care in Delaware. This is 24.3% of the estimated 37 PCOM DIMER participants who have graduated and completed their GME.

In order to assess these “return rates” for Delaware residents at TJU and PCOM, the experience of the only other states that do not have medical schools was examined. The other four states that do not have a medical school (Alaska, Idaho, Montana, and Wyoming) have developed a successful strategy to provide access to medical training for their citizens and to increase the supply of primary care physicians and graduate medical education (GME) in their states by joining together with the University of Washington School of Medicine (UWSOM) in a program called WWAMI (an acronym composed of the first letters of the five participating states).

In the WWAMI participating states other than Washington, each state has a specific number of medical school slots at UWSOM and tuition is paid for by a combination of appropriated state funds and student tuition. The students spend their first year of training at their home state university, their second year at UWSOM in Seattle, and their third and fourth year required and elective clerkships throughout the WWAMI states. GME is not required to be in the WWAMI states, but a majority of the students do so. Over the past thirty years, WWAMI reports that over 60% of the graduates have remained in the WWAMI states to practice; over the past twenty years, approximately 50% have selected primary care specialties; and an estimated 20% practice in Health Professional Shortage Areas (HPSAs). The national “return rate” is reported as 39%. The state-specific “return rates” are:

Alaska	45%
Idaho	50%

Montana	40%
Wyoming	67%

Additional details of the WWAMI program and experience are provided in the companion report to this report (Deliverable #2).

The TJU DIMER “return rate” of 22.9% and the PCOM DIMER “return rate” of 24.3% compare poorly to the WWAMI “return rates” and the national “return rate”. In fairness, it should be borne in mind that DIMER was not constructed primarily as a home state retention program, but rather a medical school admission program, at which it succeeds. In addition, the WWAMI program is constructed and operated differently than the DIMER program. Three of the four years of medical school training occur in the home state versus all four years of medical school taking place at TJU or PCOM and their related elective and clerkship sites. However, as Delaware strives to improve physician supply, determining the reasons for the lower return productivity will be important. Studying the features of the WWAMI program may be helpful. This may also be useful in the program planning for the Delaware Health Sciences Alliance.

The number of DIDER TUKSOD graduates actively practicing in Delaware is 2 – 13.3% of the total DIDER graduates. It should be noted that the dental school admission component of DIDER is somewhat new and its purpose as a dental workforce enhancement program is somewhat ambiguous. No comparison data for dental training “return rates” in other states were identified from the American Dental Association or the American Dental Education Association. However, considering the medical school national “return rate” of 39%, the TJU and PCOM “return rates” of 22.9% and 24.3% respectively, and simply a reasonable expectation of effectiveness, the DIDER “return rate” must be viewed as quite low.

The DIDER return rate is so significantly low compared to other return rates that an observer might reasonably speculate that there are one or more factors negatively influencing the decisions of new graduates in returning to the State. To the extent that the State of Delaware determines that the supply of dentists is less than is needed to assure appropriate access to dental care for the population of the state, additional information and data gathering may be performed to identify those factors.

The SLRP started somewhat slowly for its first several years, but has been more active in recent years. It appears to have been effective in making loan awards and doing so in a manner that has resulted in high percentage of award service commitments being completed and in achieving a high retention rate of the loan recipient health care providers after completion of the service commitment. This suggests that the SLRP is an effective and valuable component of the State’s efforts to attract health care providers, especially when marketed and communicated well to potential applicants and with eligible employer organizations. Its potential to further support recruitment of health care providers to provide care in underserved areas of the State appears to be limited only by the availability of federal and State funds.

[Data Comments: As stated, it was not possible to obtain all of the ideal data set planned for this report. The data were not managed or maintained in any planned or organized manner. The data elements were inconsistent and irregularly recorded in the various locations where they were found. These data elements pertained variously to demographic, education, and career information about the program participants. However, the data gaps and inconsistencies encountered in preparing the reports for this project do not prevent or compromise the data findings or conclusions presented. Accumulating a complete ideal data set for the DIMER, DIDER, and SLRP participants far exceeds the scope of this project in time and resources. If it is determined to assemble those data, the likely best sources are the participants themselves through extensive personal surveys or interviews.]