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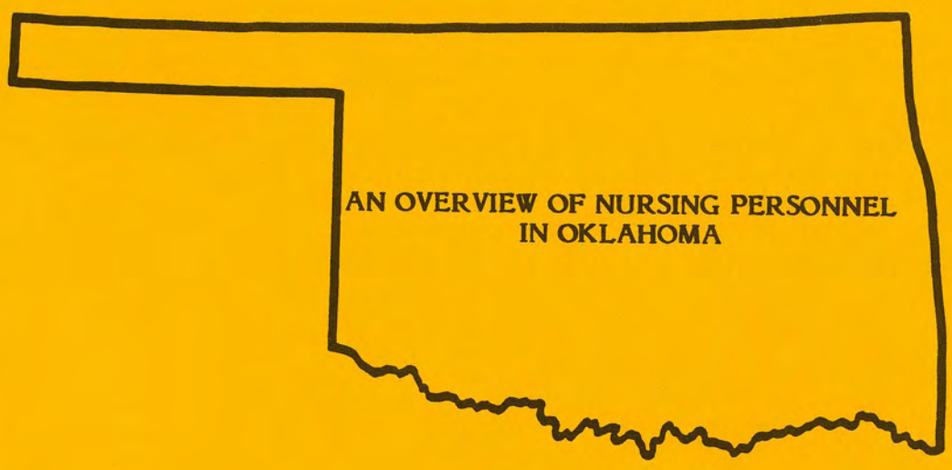

AN OVERVIEW OF NURSING PERSONNEL IN OKLAHOMA

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INTRODUCTION

Because of the impetus of proposed legislation affecting the education and licensure requirements for nurses in the State, the Rural Health Care Task Force of the Oklahoma Health Planning Commission recommended that a Position Paper be prepared. As a prerequisite to initiating such a paper, it was deemed necessary to prepare an overview of: the educational system responsible for preparing both registered and practical nurses; trends in enrollments and graduates; trends in licensed nurses from other states; trends in total licensed nurses; employment factors; ratios of nurses per 100,000 population; and forecasts of future nurse supply needs.

There are no known current studies of nurse forecast needs done on a local or State level. The only forecast of future nurse supply needs is contained in the Fifth Report to the President and Congress on the Status of Health Personnel in the United States, U.S. DHHS, dated March 1986.

BASIC NURSING EDUCATION IN OKLAHOMA

The two types of nursing personnel for which there are formal education programs that prepare students for examination and licensure are registered nurses and practical nurses. A current descriptive list of the State approved schools of nursing will be found in Table 1. Immediately following Table 1 is a map showing the approximate location of each school by type and by urban and rural county of each school (See Map 1.)

For registered nurses, there were formerly three types of programs used in preparing graduates for licensure. These initial entry points into nursing consisted of diploma, associate degree and baccalaureate programs shown in Table 2.

The diploma programs, which once constituted the main source of entrance for students into nursing in Oklahoma, went out of existence in 1983 when St. Anthony Hospital closed the last diploma program. Normally those programs were three years in length and were hospital-based.

Currently, the only sources of entry of students into registered nurse programs are through either the associate degree or bacalaureate degree program. The associate degree programs are normally two years in length and are located in either junior or community colleges. In Oklahoma, the first Associate Degree program was established at Bacone College in 1964 with Cameron State College commencing their course in 1967. Other programs in the State did not start until after 1970. By 1986, there were 16 State approved programs graduating 56.5% of all registered nurses.

Baccalaureate degree programs normally require four years of education to obtain the nursing degree. While these programs have existed in the State for many years, there were 11 State approved programs in 1986 in both public and private colleges and universities which graduated 43.4% of the registered nurses.

The practical nurse programs, conducted in one of 32 State approved vocational technical schools, normally require 12 months of academic and clinical training.

EXPENSE TO THE STUDENT

In the Fifth Report to the President and Congress on the Status of Health Personnel in the United States, U.S. DHHS, March 1986, an indication was given of the average annual expense to nursing students when it was stated:

> "Some data are available on the cost to students in the form of tuition and fee charges. These charges vary widely, depending upon the type and location of the program. For baccalaureate programs in academic year 1983-84, the median annual tuition and fee charge was $1,261 in programs operated by public entities and $4,860 in private baccalaureate programs. About half of the baccalaureate programs were in publicly supported schools. Annual median charges in associate degree programs were $860 in the publicly supported programs and $4,061 in the privately supported ones; however, about 88 percent of the total programs were located in publicly supported schools. Differences in tuition charges for diploma programs were less marked. Publicly supported programs had a median annual tuition and fee charge of $1,742 and in the privately supported programs, the median was $2,099. Only 13 percent of the diploma programs were publicly supported. Some of the difference between the tuition charges in public and private schools may be due to the fact that the fees reported for publicly supported schools relate only to students who are residents of the State or county in which the program is located. Presumably, nonresidents would have to pay a higher tuition fee than residents pay. In all cases, the charges were higher in the fall of 1983 than in the prior year. Taking all programs into account, the median charge rose about 13 percent.
>
> "Data were not available for tuition and fee charges made by practical nursing programs in the fall of 1983 at the time of this report. In the fall of 1982, the median annual tuition and fee charge in publicly supported programs was $798 in those programs charging tuition and $1,250 in the privately supported programs. Most practical nursing programs are publicly supported and about 15 percent of them did not have tuition charges."

In Oklahoma, a telephone survey was made of all of the State approved schools of nursing during November 1986 to obtain estimated costs to students for tuition, fees, books, uniforms and miscellaneous expenses. A wide variation in charges was found depending on the type of program being sought. (See Table 3.)

In academic year 1986-1987 for baccalaureate degree programs, the median annual cost to the student was $3,138 for public universities and colleges and $6,337 for private baccalaureate programs. About 64% of the baccalaureate programs were in publicly supported schools. Annual median expenses in associate degree programs were $1,392 in public entities without room and board and $2,715 in public entities with room and board. In the only privately endowed junior college, the annual median expense was $4,525.

For the practical nurse program, the annual median expense was $1,133 in the publicly supported schools. In the private vocational schools, the annual average expense was $1,375.

DECLINE IN STUDENT ENROLLMENTS

While enrollments to registered nurse educational programs increased through the academic year 1982-83, the data shown in Table 2 indicates that the number of new students started to decline. At the same time, the total number of graduates reached a high point of 948 that year but have since declined.

A similar trend is noted in enrollments in the practical nurse educational programs shown in Table 7. While these enrollments increased through 1983, they have since been on a decline. The number of graduations began their decline in 1983.

The recent decline in enrollments and admissions are blamed nationally and locally on a number of factors. The causitive factors of the decline in enrollments and admissions appear to be:

a. The current state of the economy;

b. The rising tuition and educational expenses;

c. The attractiveness of other professions for women;

d. Declining number of college age youths;

e. The pay differentials in urban and rural settings;

f. The unsettled state of entry-level requirement.s

In contrast to the rest of the nation which under went a recession and rising unemployment in 1979-80, the State of Oklahoma was not affected until 1982-83, when the two major industries commenced a drastic decline in oil and agricultural revenues. This down turn in the State's economy and rising unemployment meant that fewer families could afford a baccalaureate degree education for their children in the face of rising tuition expenses. As a corollary to this, the per capita personal income has declined in contrast to the national and southwest area levels. This is shown in the following data from the U.S. Department of Commerce, Bureau of Economic Analysis.

Per Capita Personal Income
By States and Regions, 1982-85

	Dollars				Percent Change
	1982	1983	1984	1985	1982-85
United States	11,113	11,681	12,772	13,451	21.0%
Southwest	11,067	11,266	12,208	12,782	15.5%
Arizona	10,077	10,737	11,822	12,454	23.6%
New Mexico	9,325	9,611	10,256	10,741	15.2%
Oklahoma	11,108	10,882	11,629	12,103	9.0%
Texas	11,400	11,593	12,575	13,165	15.5%

The rising tuition and educational expenses were discussed in the preceding section of EXPENSE TO THE STUDENT. While scholarships are of material assistance to the

prospective nursing student, information on the availability of scholarships is too frequently lacking for those who need the information the most. There is no central reference point where information on the availability of scholarship programs can be obtained. Each hospital, nursing school, state agency, and state/national organization maintains information on their own scholarship program but no one maintains a composite list of all such scholarships. Consequently, many grant and loan programs are not applied for by prospective students.

Another causitive factor of declining enrollments is due to the attractiveness of other professions with higher pay and more rewarding positions becoming available for women. In years past, a woman graduating from a baccalaureate degree program had only the option of going into either a teaching or nursing career. Changes have occurred in our society giving wide diversification to women in the fields of medicine, dentistry, law, engineering, aeronautics, business and the military services for careers.

The American youth is becoming a sought-after commodity in college and in the workplace. Because the birthrate fell sharply in the 1960s and early 1970s, the number of persons entering college and the workplace is smaller today than it was a decade ago. Even the military services are beginning to feel the pinch as competition from the private sector intensifies. Nationally, the U.S. Bureau of Labor Statistics (BLS) projects that the number of workers between the ages of 16 and 24 (the traditional source of entry-level employees) will shrink 11% by 1990 to 21.3 million from 1984's 24 million. That trend, the BLS predicts, will continue through the mid-1990's. Therefore, it is anticipated that in Oklahoma there will be a continuing decline also in the number of college-age students through the 1990's.

Another factor in the declining student enrollment in nursing school courses is the realization of prospective graduates of the pay differentials in the urban and rural settings. This, coupled with the growing realization that the median 4-year expense of a baccalaureate degree RN is $12,552 - 25,376 to obtain the degree, does not encourage that RN to return to the rural area. Of the 11 baccalaureate programs, 8 (73%) are in urban counties and 3 (27%) are in the rural area. Of the 16 associate degree programs, 8 (50%) are in the urban counties and 8 (50%) in the rural counties. Of the 31 practical nurse programs, 11 (35%) are in the urban counties and 20 (65%) are in the rural counties.

The last factor in the decline of student enrollment is seen in the students' perception of the unsettled state of entry-level requirements into nursing. Since each prospective student's perception of nursing is formed long before they enter a program, their opinion is shaped by the comments of the nurses with whom they identify before entering a BSN, AD or vocational program. Those on-site nurses' divisiveness and concerns about a "professional" versus "technical" level of practice, higher or lower tuition costs, longer or shorter programs, and single entry versus multiple entry tracks into a nursing career deters more students from enrollments.

ATTRITION OF NURSING PERSONNEL

There is an attrition of registered and practical nurses which occurs during four distinct phases of a nurse's career, i.e., during matriculation, between graduation and the examination for licensure, and general attrition due to endorsements to another state, retirements, deaths or changing career fields. Because specific detailed data does not exist on all phases for registered and practical nurses, only estimates can be made based on available data.

Students admitted during their third and fourth year of the baccalaureate degree program appear to have an estimated 20.4% attrition rate while those in the associate degree program have an estimated 16.1% attrition rate. Those enrolled in the practical nurse program have an estimated 18.5% attrition rate. The attrition rate, during the matriculation process, is due to students dropping out of the program or school, or can be assessed to changing to a program in another career field.

The second area of attrition of RN candidates out of nursing programs in Oklahoma occurs between the time of graduation and before taking the licensure examination. Table 4 reflects an annual average of 7.9% of all graduates who either decide not to take the licensure examination or go out of Oklahoma to take the examination in another state. The estimated attrition rate for practical nurses is not known.

The third area of attrition of RNs and LPNs occurs following licensure. After each have become licensed to practice in Oklahoma, they may apply for endorsement to another state without having to re-take the written examination under reciprocol agreements for licensure qualifications. These attrition rates are shown in Table 5 and reveal 3.8% for RNs and 2.9% for LPNs.

The fourth area of attrition from a career in nursing involves those RNs and LPNs who change career fields for other employment areas, those who let their license expire, those who retire or due to death. Annual attrition rates for registered nurses will be found on Table 8 and for licensed practical nurses will be found on Table 9. For the period 1970-1986, there was an average annual rate of 5.4% for RNs and 5.04% for LPNs.

CHARACTERISTICS OF REGISTERED NURSES

The growth in numbers of registered nurses by educational preparation and by county are shown in Table 10. While the numbers of RNs have grown from 1970-1985, this table reflects relatively little change in the percent distribution between urban and rural counties of diploma, associate degree, and baccalaureate degree RNs. While nearly three-quarters of all diploma and baccalaureate degree RNs live in the urban counties, slightly more than one-half of the associate degree nurses live in the urban counties.

For the entire period 1971-1986, the number of RNs by educational preparation are shown on Chart 1 following Table 10. Based on the data presented in Chart 1, the relevant changes in educational preparation are shown below through 1985. As a percentage of the total, the diploma RNs are declining and the associate degree RNs have shown the greatest increase in growth.

Educational Preparation
by Percent for Registered Nurses

Type Preparation	1970	1975	1980	1985
Diploma	88.3	73.8	53.5	41.3
Associate Degree	2.7	11.9	25.3	33.7
Baccalaureate Degree	9.0	14.3	21.3	25.1

A review of the data on the age groups of RNs reveals some significant changes in the interval of 1971-1986. (See Chart 2 following Table 10.) For instance, Chart 2 shows a dramatic change in the spread between the age groups 20-29 and 30-39 while the age group spread of 40-49, 50-59 and 60+ have remained relatively constant. The

dramatic change in the spread between the age 20-29 and 30-39 year groups is probably a direct reflection of the decreasing enrollments in the college-age baccalaureate degree nursing students. The baccalaureate degree nursing student is normally female and between 18-22 years old whereas the associate degree nursing student is predominately female and age 30+. This is probably more apparent when viewed on a percentage basis of RNs by age group which is shown below.

Registered Nurses
By Age Group

Age	1971	1975	1980	1985
20 - 29	23.6	25.1	27.1	18.0
30 - 39	25.3	25.0	29.3	36.9
40 - 49	23.0	21.1	20.2	21.8
50 - 59	17.7	17.6	14.7	13.8
60+	8.8	11.1	8.6	9.4
Unknown	1.5	-	0.1	-

CHARACTERISTICS OF LICENSED PRACTICAL NURSES

According to the information published annually by the Oklahoma Board of Nurse Registration and Nursing Education, there were 12,337 LPNs in FY 1986 of which 9,131 (74.0%) were employed. According to a national sample study conducted by the Research Triangle Institute under contract with the Division of Nursing, Bureau of Health Professions (BHPr,) in November 1983 about 3 percent of those licensed were men. Also, almost three quarters of those employed as LPNs were working on a full-time basis. Those employed on a part-time basis were more likely to be found among the married LPNs than among those who were never married or were formerly married. They also reported the median age was 38.6 years and that the employed LPN tended to be younger on the average than those who were not employed. The median age of employed LPNs was 37.7 while the median age for the unemployed was 41.3.

In Oklahoma, Chart 3 shows the educational preparation of currently licensed practical nurses. The former requirements originally allowed LPNs to have their educational requirements to be waived but they are now required to have completed 12 months of a practical nursing school curriculum before taking the licensure examination. The following percentages show the trends in both educational preparation and employment from 1971-1985 which has been taken from data on Chart 3.

Educational Preparation of LPNs

	1971	1975	1980	1985
Graduate of School	62.4	65.4	65.2	74.5
Waiver	20.6	10.3	4.0	2.0
Unemployed - Unknown	17.0	24.3	30.8	23.5

Chart 4 reflects the historical trend information of LPNs by age group and it also reflects the decline in enrollments by the younger (20-29) age groups with a gradual widening spread between the 20-29 and 30-39 year age groups. Selected data has been extracted from this chart and has been converted to percentages for each age group shown below.

Age Groups of LPNs

Age Group	1971	1975	1980	1985
20 - 29	24.1	27.9	25.8	18.1
30 - 39	19.1	21.4	26.6	33.1
40 - 49	21.2	21.7	20.6	21.8
50 - 59	19.8	17.2	15.5	16.7
60+	11.7	11.8	11.4	10.2
Unknown	4.1	.05	.04	-

EMPLOYED NURSE MANPOWER

Data on employed RNs by positions, by field of employment for RNs and LPNs, and by county for RNs and LPNs will be found on Tables 11-14. These tables reflect that from 1971-1985 employed RNs increased by 144.7% while employed LPNs increased by only 79.4%.

Among the employed RN positions, significant changes have occurred in the major categories of those which are totally administrative in nature and those which are principally patient oriented (see Table 11). In those positions that are administrative in nature (i.e., administrator, consultant, supervisor or instructor), the increase from 1971-1985 was 83.2%. During that period, Consultants increased 358.3%, Instructors increased 123.3%, Administrators or Assistants increased 95.6% and Supervisors or Assistants increased 60.3%.

In those employed positions which are patient oriented (i.e., Head Nurse, General Duty, and Other/Not Reported), there was an overall increase of 163.8% from 1971-1985. General Duty or Staff RNs increased 196.8%, Other/Not Reported 114.9% and Head Nurse or Assistant increased by 84.0%.

The period from 1971 to 1985 saw many changes in the fields of employment for both RNs and LPNs. While some fields experienced significant increases in those employed, other fields recorded little to no growth. (See Tables 12 and 13.)

Field of Employment	Percent Change RNs	LPNs
Hospital	+168.0%	+47.3%
Nursing Home	+0.1%	+109.9%
School of Nursing	+141.3%	-
Private Duty	+26.3%	+100.0%
Community Health	+144.5%	+225.4%
School Nurse	+37.1%	-
Industrial Nurse	+69.6%	+569.2%
Office Nurse	+103.0%	+275.5%
Other	+453.1%	-153.3%
Total Employed	+144.7%	+79.4%

When the employment picture for RNs is looked at (Table 14) on a county basis, the urban counties reflected the greatest growth from 1971-1985 with 152.6% and the rural areas with an increase of 126.4%. Among the urban counties, Canadian County showed the greatest increase in employed RNs with 516.1% growth and among rural counties, Ottawa showed 304.5% growth. In 1985, the urban counties employed 72.1% of the employed RNs and the rural counties accounted for 27.9%.

For the employed LPNs, the period 1971-1985 showed the greatest increase in the rural counties with a growth of 82.4% while the urban county increase was 76.7%. The rural county which showed the most significant growth was Tillman County with 550% increase and in the urban counties, Canadian County showed a 359.0% increase. The employed LPNs in 1985 were almost equally divided with 52.3% working in urban counties and 47.7% employed in the rural counties.

FEDERAL OVERVIEW OF NURSING PERSONNEL

The Fifth Report to the President and Congress (March 1986) reviewed previous national reports on the status of nursing personnel in the United States, described the

current educational and employment status, and described forecasts of both historical trend-based and criteria-based models.

Public Law 94-63 originally directed the Secretary of Health and Human Services to provide to Congress detailed information on the supply and distribution of and the requirements for nurses. (The annual reporting requirement was subsequently changed to biennial reports by P.L. 95-623.) The first of these reports was the First Report to the Congress, February 1, 1977 (USDHEW, DN, 1977).

The Third Report to the Congress, February 17, 1982 (USDHHS, Division of Nursing, 1982) included data from a national sample survey of registered nurses conducted in 1977. It concluded that there was anticipated continued growth in the nurse supply over the next 20 years at varying rates. Comparison was made between two sets of requirement projections and four sets of supply projections based on alternative assumptions. It was concluded that there would be a reasonable balance between requirements and supply by 1990 but by 2000, requirement projections would exceed supply estimates. While federal support had been instrumental in increasing the supply of registered nurses, this report urged each state, the health care industry and the profession to assume a greater role in maintaining enrollments, subsidizing the costs of further increases, and instituting measures to improve use of nursing personnel.

The Fourth Report to the Congress, May 1984 (USDHHS) served the two-fold purpose of fulfilling the biennial reporting requirement to Congress and to report on a two-year study conducted by the National Academy of Sciences. This study was mandated by P.L. 96-76 (Nurse Training Amendments of 1979). The fourth report recommended limiting the federal government's role to maintaining the nurse supply to areas

amenable only to federal intervention or to areas in which federal actions could serve as a catalyst to the non-federal sector.

Unfortunately, the fourth report was prepared and completed some months in advance of the 3-year phase-in of prospective payment for Medicare services which officially started on October 1, 1983. Because nursing is an essential element of hospital care, the new prospective payment system is expected to dramatically alter the practice of nursing in all types of settings, especially hospitals. Changes in practice will influence level of care, quality and cost of care. Findings of the long-range studies of its effects are not yet available; however, there appears to be sufficient evidence of the impact of change of nursing services in the institutional and community settings to support initial conclusions.

The Fifth Report to the President and Congress analyzed future manpower requirements based on two approaches. The first, the historical trend-based model, describes requirements based on an extension of the past and current trends of services and use of resources modified by assumptions. The second, the criteria-based model analyzes the nursing requirements based on judgements of appropriate resources needed to achieve specific health care goals. The basic modeling structures for these approaches were derived from studies in the mid-1970s and described in the current and previous three reports to the President and Congress (1979, 1982 and 1984).

HISTORICAL TRENDS AND PROJECTIONS

The historical trends of registered and licensed practical nurses in Oklahoma have shown some similarities with the national trends (see Table 15). During the period

1970-86 in Oklahoma, RNs increased from 7,110 to 17,061 at an average annual rate of 8.7% while the LPNs increased from 4,973 to 12,337 at an average annual rate of 9.3% (See Tables 8 and 9.) However, during the last 6 years of that period from 1980-86, the growth rate declined to 4.5% for RNs and 4.0% for LPNs. For the United States, the period of 1980-86 revealed a growth rate of 3.7% for RNs and for LPNs from 1983-86, the growth rate was 4.1%. (See Table 15.)

Conversely, in terms of registered and licensed practical nurses per 100,000 population, Oklahoma had ratios of 494 RNs and 323 LPNs in 1983 while the national average for that year was a ratio of 600 RNs and 231 LPNs.

According to the Fifth Report to the President and Congress on the Status of Health Personnel in the United States, the future ratio per 100,000 population for nursing personnel is projected as shown below.

National Projection for Nursing Personnel
per 100,000 Population

Year	RNs	LPNs
1990	695	277
1995	743	302
2000	775	320

This implies that the national growth rates in the supply of nursing personnel per 100,000 population will have slowed to 1.9% for RNs and 2.4% for LPNs by the year 2000.

SUMMARY AND CONCLUSIONS

1. Nationally and in Oklahoma, the number of enrollments, acceptances and graduations for baccalaureate degree programs for nurses are declining.

2. Nationally and in Oklahoma, the number of enrollments and graduations for associate degree programs for nurses are declining.

3. Nationally, the number of diploma programs, enrollments and graduations are declining. In Oklahoma, diploma programs for nurses are no longer in existence.

4. Nationally and in Oklahoma, the number of enrollments and graduations into vocational technical programs for practical nurses are declining.

5. The average student expense in Oklahoma for baccalaureate and associate degree programs for nurses and vocational technical programs for practical nurses are considerably above the national averages in both public and private schools, colleges and universities.

6. The per capita income of Oklahomas is below the national average which has a direct bearing on the number of families who can support a student in either baccalaureate or associate degree programs.

7. The numbers of students ages 18-24 available to go into baccalaureate programs are declining nationally through the year 2000.

8. The capital investment in State funds made in the public programs of the universities, colleges, community colleges and vocational technical schools is significant in relation to programs preparing registered and practical nurses.

9. Other than the federal study of nursing supply and projected requirements, there is no currently known study by a State agency describing the availability and requirements of nursing personnel in Oklahoma from present to the year 2000.

RECOMMENDATIONS

1. Because of the impending legislative initiative being proposed by the Oklahoma Nurses Association and supported by the National League for Nursing (NLN) and the American Nurses' Association (ANA), a position paper should be developed, approved and published by the Oklahoma Health Planning Commission in view of its continuing assessment of Oklahoma's needs for health care services.

2. Before any further changes are proposed to the current registered nurse and practical nurse practice act, a determination of the available supply and projected requirements for registered nurses and practical nurses for 1990, 1995 and 2000 should be prepared and published by a special Task Force of a State agency, and

3. An economic impact study should be prepared on: all State educational facilities, prospective students, and health care costs across the broad spectrum of health care providers and third party payors.

TABLE 1
STATE APPROVED SCHOOLS OF NURSING
(Preparing Registered Nurses)
1986

BACCALAUREATE DEGREE

East Central University, Department of Nursing, Ada, 74820
Northwest Oklahoma State University, Department of Nursing, Alva, 73717
Southern Nazarene University, Department of Nursing, Bethany 73008
Central State Unversity, Department of Nursing, Edmond, 73034
Oklahoma City University, School of Nursing, Oklahoma City, 73101
The University of Oklahoma, College of Nursing, Oklahoma City 73190
Oklahoma Baptist University, School of Nursing, Shawnee, 74801
Langston University, Department of Nursing, Tulsa, 74127
Oral Roberts University, Anna Vaughn School of Nursing, Tulsa, 74137
The University of Tulsa, College of Nursing and Applied Health Sciences, Tulsa, 74104
Southwestern Oklahoma State University, Division of Nursing, Weatherford, 73096

ASSOCIATE DEGREE

Western Oklahoma State College, Department of Nursing, Altus, 73521
Rogers State College, Department of Nursing, Claremore, 74017
El Reno Junior College, Department of Nursing, Claremore, 74017
Cameron University, Department of Nursing, Lawton, 73505
Northeastern Oklahoma A & M College, Department of Nursing, Miami 74354
Rose State College, Department of Nursing, Midwest City, 73110
Bacone College, Department of Nursing, Muskogee, 74403
Oklahoma City Community College, Department of Nursing, Oklahoma City, 73159
Oklahoma State University, Tech Branch, Department of Nursing, Oklahoma City, 73107
Carl Albert Junior College, Department of Nursing, Poteau, 74953
Seminole Junior College, Department of Nursing, Seminole, 74868
Murray State College, Department of Nursing, Tishomingo, 73460
Northern Oklahoma College, Department of Nursing, Tonkawa, 74653
Tulsa Junior College, Department of Nursing, Tulsa, 74119
Connor's State College, Department of Nursing, Warner, 74469
Eastern Oklahoma State College, Department of Nursing, Wilburton, 74578

STATE APPROVED SCHOOLS OF NURSING
(Preparing Licensed Practical Nurses)
1986

Vocational/Technical Schools

Byng Vocational School of Practical Nursing, Route 3, Ada, 74820
Northeast Area Vo-Tech School, Division of Practical Nursing, Afton, 74331
Southwest Oklahoma School of Practical Nursing, Altus, 73521
Southern Oklahoma Area Vo-Tech Center, Division of Practical Nursing, Ardmore, 73401
Tri-County Area Vo-Tech School, Division of Practical Nursing, Bartlesville, 74006
Western Oklahoma Area Vo-Tech School, Division of Practical Nursing, Burns Flat, 73624
Central Oklahoma Area Vo-Tech School, Division of Practical Nursing, Drumright, 74030

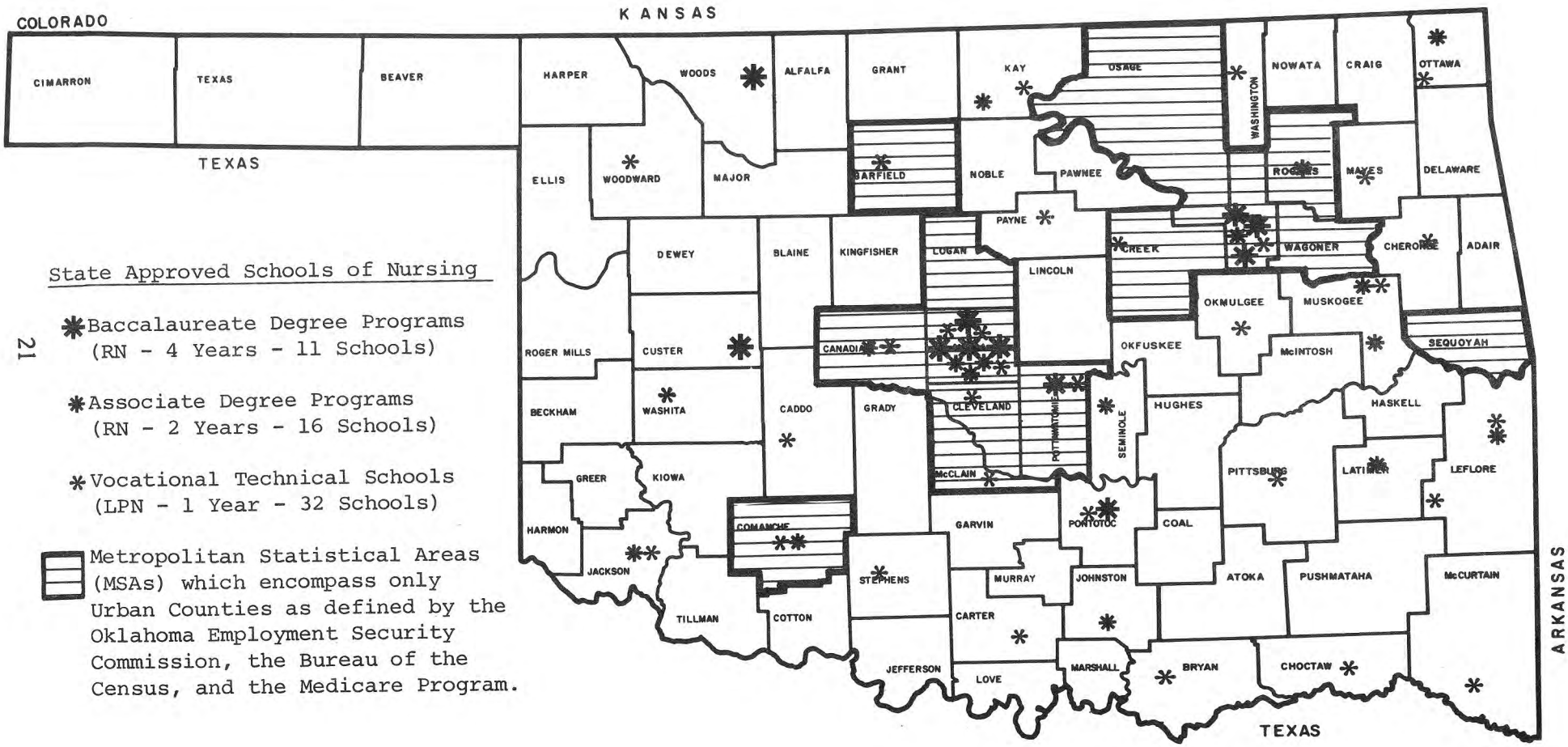
TABLE 1 (Continued)

State Approved Schools of Nursing
Preparing Licensed Practical Nurses (Continued)

Red River Area Vo-Tech School, Division of Practical Nursing, Duncan, 73533
Canadian Valley Area-Vo-Tech School, Division of Practical Nursing, El Reno, 73036
O.T. Autry Area Vo-Tech Center, School of Practical Nursing, Enid, 73703
Caddo-Kiowa Area Vo-Tech, School of Practical Nursing, Fort Cobb, 73038
Kiamichi Area Vo-Tech School, Division of Practical Nursing, Talihina, 74571
Kiamichi Area Vo-Tech School, Division of Practical Nursing, Durant, 74702
Kiamichi Area Vo-Tech School, Division of Practical Nursing, Hugo, 74743
Kiamichi Area Vo-Tech School, Division of Practical Nursing, Idabel, 73747
Kiamichi Area Vo-Tech School, Division of Practical Nursing, McAlester, 74502
Kiamichi Area Vo-Tech School, Division of Practical Nursing, Poteau, 74953
Great Plains Area Vo-Tech Center, Division of Practical Nursing, Lawton, 73505
Mid-Del Area Vo-Tech School, Division of Practical Nursing, Midwest City, 73110
Indian Capital Area Vo-Tech School, Department of Practical Nursing, Muskogee, 74401
Moore-Norman Area Vo-Tech School, Voc. School of Practical Nursing, Norman, 73069
Francis Tuttle Area Vo-Tech Center, Practical Nursing Program, Oklahoma City, 73142
Oklahoma City Area Vo-Tech District 22, School of Practical Nursing, Oklahoma City, 73111
Oklahoma State Tech, School of Practical Nursing, Okmulgee, 74447
Pioneer Area Vo-Tech School, Voc. School of Practical Nursing, Ponca City, 74601
Northeast Area Vo-Tech School, Division of Practical Nursing, Pryor 74362
Gordon Cooper Area Vo-Tech School, Division of Practical Nursing, Shawnee, 74801
Indian Meridian Area Vo-Tech School, Division of Practical Nursing, Stillwater, 74074
Cherokee Nation School of Practical Nursing, Tahlequah, 74465
Tulsa County Area Vo-Tech School, School of Practical Nursing, Tulsa, 74145
Mid-America Area Vo-Tech School, Division of Practical Nursing, Wayne, 73095
High Plains Area Vo-Tech School, School of Practical Nursing, Woodward, 73802

MAP 1

STATE APPROVED SCHOOLS OF NURSING
IN URBAN AND RURAL COUNTIES



State Approved Schools of Nursing

- Baccalaureate Degree Programs (RN - 4 Years - 11 Schools)
- Associate Degree Programs (RN - 2 Years - 16 Schools)
- Vocational Technical Schools (LPN - 1 Year - 32 Schools)

Metropolitan Statistical Areas (MSAs) which encompass only Urban Counties as defined by the Oklahoma Employment Security Commission, the Bureau of the Census, and the Medicare Program.

Prepared by OHPC Staff, November 1986.

TABLE 2

RNs IN BASIC NURSING EDUCATION

Fiscal Year	Diploma		Associate Degree		Baccalaureate Degree		Total Students	
	Enrollments	Graduates	Enrollments	Graduates	Enrollments	Graduates	Enrollments	Graduates
1970	Unknown	115	Unknown	32	Unknown	69	Unknown	216
1971	Unknown	95	Unknown	61	Unknown	57	Unknown	213
1972	Unknown	105	499	71	412	121	Unknown	297
1973	281	101	649	172	531	152	1,461	425
1974	301	128	897	240	617	204	1,815	572
1975	182	150	768	314	600	268	1,550	732
1976	104	149	1,091	350	634	267	1,829	766
1977	107	49	1,120	424	877	274	2,104	747
1978	83	52	970	456	922	313	1,975	821
1979	71	38	1,208	463	913	371	2,192	872
1980	71	39	1,216	466	877	344	2,154	849
1981	73	30	1,295	524	878	334	2,246	888
1982	42	32	1,439	505	922	359	2,403	896
1983	30	30	1,305	560	984	358	2,319	948
1984	-	-	1,145	560	905	364	2,050	924
1985	-	-	1,084	550	896	373	1,900	923
1986	-	-	-	502	-	386	-	888

Note: The last Hospital Diploma Program ceased operation in 1983.

Source: Annual Newsletter, Oklahoma Board of Nurse Registration, February 1973-1986.

TABLE 3
AVERAGE EXPENSE* TO STUDENT IN NURSING PROGRAM
1986

	Yearly Range	Total Range
Practical Nurse (Vo-Tech School - 12 Months)		
Public Schools (29)	$ 400-1500	$ 400-1,500
Private Schools (2)	$1,000-1,750	$ 1,000-1,750
Registered Nurse (Associate Degree - Two Years)		
Public School Without Room and Board (10)	$ 1,050-2012	$ 2,100-4,024
Public School with Room and Board (5)	$2,388-3,131	$ 4,776-6,262
Private School (1)	$ 4,525	$ 9,050
Registered Nurse (Baccalaureate - Four Years)		
Public School (7)	$2,349-4,322	$ 9,396-17,288
Private School (4)	$5,809-7,410	$23,236-29,640

Legend: *Includes Tuition, Student Fees, Books, Examination Fees, Uniforms, and some Travel Expenses.

Source: Telephone Survey of 31 Vocational Technical Schools, 16 Associate Degree Programs, and 11 Baccalaureate Degree Programs by Oklahoma Health Planning Commission Staff, October 20-27, 1986.

TABLE 4
ESTIMATED ATTRITION OF RN GRADUATES
TAKING EXAMINATION IN OTHER STATES

CY Year	Oklahoma Graduates	(Minus)	First Time Writers Who took Exam	(Equals)	Graduate Attrition Out-of-State
1975	732		707		25
1976	766		764		2
1977	747		729		18
1978	821		750		71
1979	872		785		87
1980	849		788		61
1981	888		801		87
1982	896		789		107
1983	948		895		53
1984	924		839		85
1985	928		782		141
Total	9,366		8,629		737 (7.87% annual average)

Source: Annual Fiscal Year Reports, Oklahoma Board of Nurse Registration and Nursing Education, FY 1976-1986.

TABLE 5
ATTRITION TO OTHER STATES AND COUNTRIES
BY ENDORSEMENT

Fiscal Year	Licensed RNs	Endorsements To Other States	RN Attrition Rate	Licensed LPNs	Endorsements To Other States	LPN Attrition Rate
1970	7,110	322	4.53	4,973	143	2.88
1971	7,671	279	3.64	5,660	164	2.90
1972	8,085	261	3.23	5,827	185	3.17
1973	8,543	296	3.46	6,315	188	2.98
1974	9,022	373	4.13	6,823	203	2.98
1975	9,702	336	3.46	7,509	223	2.97
1976	10,714	454	4.23	7,742	229	2.96
1977	11,301	431	3.81	8,124	249	3.06
1978	12,142	470	3.87	9,025	262	2.90
1979	12,938	488	3.77	9,558	262	2.74
1980	13,442	516	3.84	9,943	286	2.88
1981	15,144	513	3.39	10,457	303	2.90
1982	15,740	552	3.51	10,979	284	2.59
1983	16,353	542	3.31	10,702	313	2.92
1984	16,183	593	3.66	12,064	325	2.69
1985	17,784	601	3.38	11,018	387	3.51
1986	17,061	807	4.73	12,337	376	3.05

Source: Report of Nurse Population in Oklahoma, Oklahoma Board of Nurse Registration and Nursing Education, 1970-1986. Annual Fiscal Year Reports, Oklahoma Board of Nurse Registration and Nursing Education, 1975 and 1986.

TABLE 6

EXAMINATION FOR REGISTERED NURSE LICENSURE

Fiscal Year	First Time Writers						Repeat Writers					
	Oklahoma		Other States		Other Counties		Oklahoma		Other States		Other Counties	
	Total	Passed	Total	Passed	Total	Passed	Total	Passed	Total	Passed	Total	Passed
1976	707	633	28	27	14	2	104	59	4	2	21	4
1977	764	656	33	29	12	8	128	96	6	4	11	6
1978	729	612	20	17	11	4	150	93	5	2	10	2
1979	750	637	40	38	9	4	132	78	3	0	7	1
1980	785	633	52	43	7	4	171	117	8	7	3	2
1981	788	619	49	39	11	4	183	124	11	7	3	2
1982	801	618	46	38	9	2	241	163	11	8	1	1
1983	789	681	95	89	27	8	230	129	10	8	13	3
1984	895	797	48	44	26	14	148	89	22	13	34	14
1985	839	693	52	48	34	8	185	114	10	7	32	6
1986	782	691	67	60	36	17	144	86	11	5	35	7

Source: Annual Reports, Oklahoma Board of Nurse Registration and Nursing Education, FY 1976-1986.

TABLE 7

LPN EDUCATIONAL PREPARATION AND EXAMINATION FOR LICENSURE

Year	Vo-Tech Schools		First Time Writers				Repeat Writers*		
	Enrollments	Graduates	Total	Passed	Failed	% Passed	Total	Passed	Failed
1970	Unknown	Unknown	424	408	16	96	18	7	11
1971	Unknown	Unknown	431	406	25	94	22	12	10
1972	Unknown	Unknown	527	516	11	98	20	10	10
1973	Unknown	554	618	592	26	96	29	13	16
1974	681	Unknown	650	614	36	95	28	11	17
1975	Unknown	702	682	639	43	94	48	26	22
1976	766	Unknown	585	542	43	93	47	17	30
1977	831	621	677	640	37	95	55	25	30
1978	858	Unknown	647	602	45	93	58	17	41
1979	864	823	758	689	69	91	86	41	45
1980	858	747	718	657	61	89	81	30	51
1981	911	845	690	610	80	89	99	32	67
1982	987	846	739	676	63	92	109	43	66
1983	1,161	743	778	713	65	92	148	52	96
1984	980	723	818	761	57	93	90	46	44
1985	893	679	728	647	77	89	90	37	53
1986		716	642	566	76	89	99	40	59

Note: *Persons repeating the examination may have been unsuccessful during a previous reporting period.

Source: Annual Reports, Oklahoma Board of Nurse Registration and Nursing Education, 1971-1986.

TABLE 8

INCREASES AND DECREASES IN LICENSED REGISTERED NURSES

Year	New Licenses Issued During the FY: Oklahoma Graduates	Other States By Examination	Other Countries By Examination	By Interstate Endorsement	Total New Licenses Issued	Licensed RN's	Next Fiscal Year's Gains	Potential Licensed RN's Next FY	RN's** Licensed During Next FY	Attrition** During Next FY	Attrition** Rate Next FY
1970	234*	*	*	506	740	7,110	821	7,931	7,671	-260	-3.3
1971	248*	*	*	573	821	7,671	741	8,412	8,085	-327	-3.9
1972	244*	*	*	497	741	8,085	840	8,925	8,543	-382	-4.3
1973	297*	*	*	543	840	8,543	945	9,488	9,022	-466	-4.9
1974	421*	*	*	524	945	9,022	1,156	10,178	9,702	-476	-4.7
1975	585*	*	*	571	1,156	9,702	1,323	11,025	10,714	-311	-2.8
1976	692	31	6	594	1,323	10,714	1,425	12,139	11,301	-838	-6.9
1977	752	35	14	624	1,425	11,301	1,252	12,553	12,142	-411	-3.3
1978	705	22	6	519	1,252	12,142	1,555	13,697	12,938	-759	-5.5
1979	715	41	5	794	1,555	12,938	1,576	14,514	13,442	-1,072	-7.4
1980	750	51	6	769	1,576	13,442	1,686	15,128	15,144	+16	+0.1
1981	743	50	6	887	1,686	15,144	1,978	17,122	15,740	-1,382	-8.1
1982	781	49	3	1,145	1,978	15,740	1,986	17,726	16,353	-1,373	-7.7
1983	810	99	11	1,066	1,986	16,353	1,796	18,149	16,183	-1,966	-10.8
1984	886	66	28	816	1,796	16,183	1,668	17,851	17,784	-67	-0.4
1985	807	58	14	789	1,668	17,784	1,692	19,476	17,061	-2,415	-12.4
1986	777	71	24	820	1,692	17,061					

Legend: *Comingled Data. Data by separate categories not available.
**Registered Nurses who are endorsed to another state and maintain a dual license in Oklahoma, and later return to Oklahoma, are not included as an Interstate Endorsement. Therefore, numbers indicated as Attrition or Attrition Rates may be misleading. "Plus" numbers indicate a return in-flow back into the State of dual-licensed nurses.

Sources:
1. Annual Fiscal Year Reports, Oklahoma Board of Nurse Registration and Nursing Education, 1976-1986.
2. Report of Nurse Population in Oklahoma, Oklahoma Board of Nurse Registration and Nursing Education, 1970-1986.

TABLE 9

INCREASES AND DECREASES IN LICENSED PRACTICAL NURSES

Year	New Licenses Issued During the FY: Oklahoma Graduates	Other States By Examination	Other Countries By Examination	By Interstate Endorsement	Total New Licenses Issued	Licensed LPN's	Next Fiscal Year's Gains	Potential Licensed LPN's Next FY	LPN's** Licensed During Next FY	Attrition** During Next FY	Attrition** Rate Next FY
1970	415	*	*	238	653	4,973	634	5,607	5,660	+53	+0.9
1971	418	*	*	216	634	5,660	796	6,456	5,827	-629	-9.7
1972	526	*	*	270	796	5,827	836	6,663	6,315	-348	-5.2
1973	605	*	*	231	836	6,315	868	7,183	6,823	-360	-5.0
1974	625	*	*	243	868	6,823	930	7,753	7,509	-244	-3.1
1975	665	*	*	265	930	7,509	844	8,353	7,742	-611	-7.3
1976	536	23		285	844	7,742	984	8,726	8,124	-602	-6.9
1977	635	30		319	984	8,124	972	9,096	9,025	-71	-0.8
1978	599	20		353	972	9,025	1,054	10,079	9,558	-521	-5.2
1979	696	34		324	1,054	9,558	998	10,556	9,943	-613	-5.8
1980	671	16		311	998	9,943	1,035	10,978	10,457	-521	-4.7
1981	613	28	1	393	1,035	10,457	1,204	11,661	10,979	-682	-5.8
1982	678	40	1	485	1,204	10,979	1,209	12,188	10,702	-1,486	-12.2
1983	714	51		444	1,209	10,702	1,117	11,819	12,064	+245	+2.1
1984	763	44		310	1,117	12,064	962	13,026	11,018	-2,008	-15.4
1985	655	29		278	962	11,018	901	11,919	12,337	+418	+3.5
1986	574	30	2	295	901	12,337					

Legend: *Comingled Data. Data not separately identified.

**Licensed Practical Nurses who are endorsed to another state and maintan a dual license in Oklahoma, and later return to Oklahoma, are not included as an Interstate Endorsement. Therefore, numbers indicated as Attrition or Attrition Rates may be misleading. "Plus" numbers indicate a return in-flow back into the State of dual-licensed Practical Nurses.

Sources:
1. Annual Fiscal Year Reports, Oklahoma Board of Nurse Registration and Nursing Education, 1976-1986.
2. Report of Nurse Population in Oklahoma, Oklahoma Board of Nurse Registration and Nursing Education, 1970-1986.

TABLE 10

LICENSED RNs BY EDUCATIONAL PREPARATION

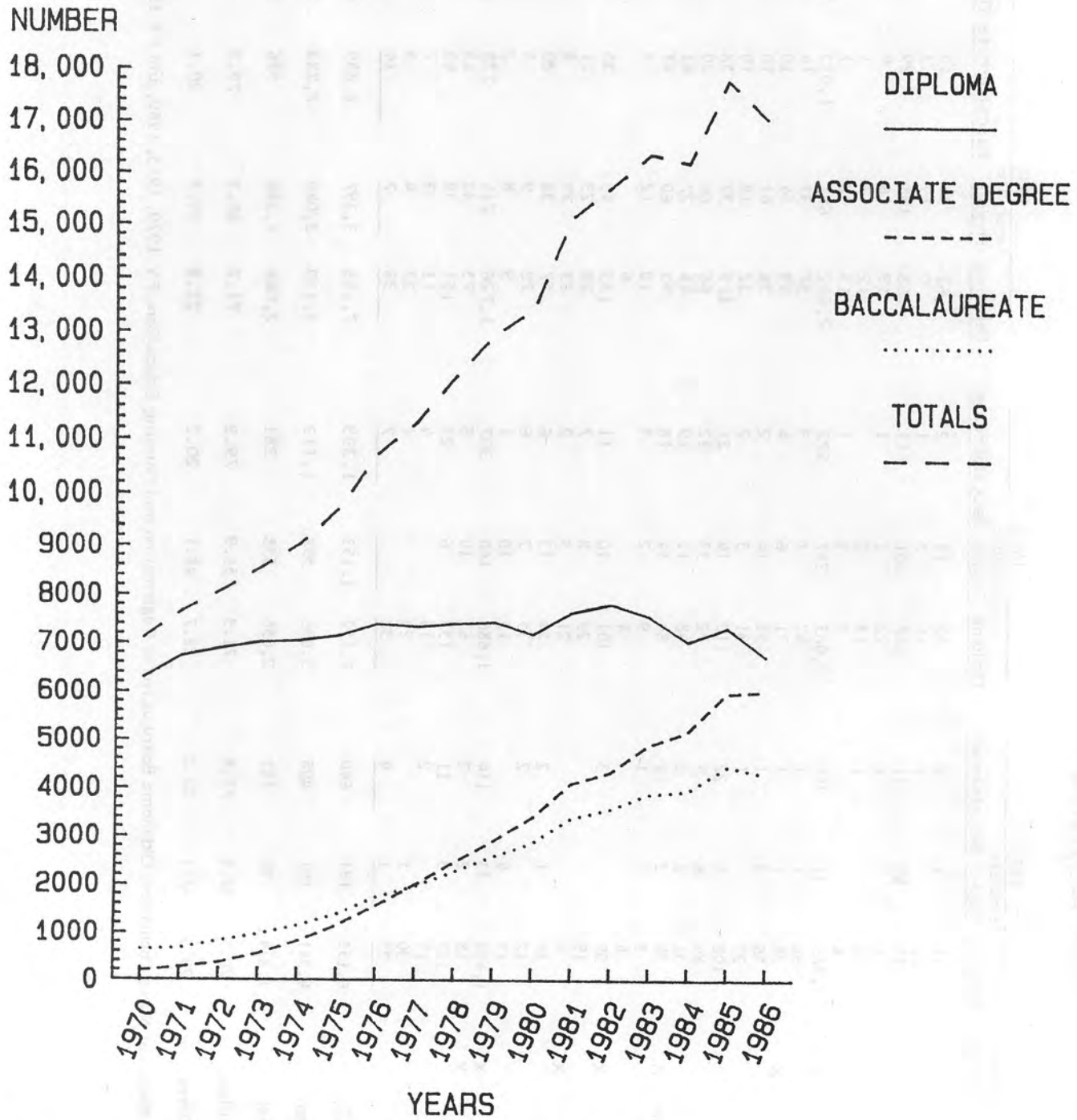
County	Urban Counties	1970			1975			1980			1985		
		Diploma	Associate Degree	Baccalaureate	Diploma	Associate Degree	Baccalaureate	Diploma	Associate Degree	Baccalaureate	Diploma	Associate Degree	Baccalaureate
Adair		10	3		10	8	1	12	14	3	14	20	3
Alfalfa		23			21			21	1	6	19	5	3
Atoka		4	1	1	9	3		8	7		7	11	2
Beaver		13			10	1		9	1	3	11	5	5
Beckham		23	1	1	32	3	2	30	9	11	36	14	17
Blaine		24		4	25	1	4	30	3	7	27	8	12
Bryan		16	2	1	21	14	7	19	38	5	26	60	6
Caddo		29	2	2	36	10	2	30	19	11	31	26	12
Canadian	X	52	1	4	103	15	17	129	63	54	162	148	90
Carter		53	3	9	69	36	18	62	61	18	54	112	27
Cherokee		50	1	3	50	13	6	57	52	10	60	92	18
Choctaw		10			10	6		9	18	2	9	23	1
Cimarron		8		1	7	1		6		2	5	3	2
Cleveland	X	251	8	49	313	46	103	345	138	202	370	278	341
Coal		6		2	5	1	2	6	5		6	8	1
Comanche	X	199	17	29	199	72	33	174	139	55	176	238	95
Cotton		5	1		6	2	1	5	9		3	8	
Craig		26	1	1	31	4	6	31	21	4	32	47	8
Creek	X	46	1	4	59	7	7	65	30	19	77	55	30
Custer		72	2	2	72	9	7	68	18	22	61	25	36
Delaware		17	1	4	27	4	3	29	15	3	27	31	5
Dewey		2			7	1		10	1	2	9	3	5
Ellis		16		3	27	1	12	22	4	13	23	5	16
Garfield	X	249	4	19	260	31	22	234	76	59	221	118	78
Garvin		20		1	30	4	5	29	13	12	36	14	18
Grady		42	1	4	58	10	5	58	30	18	55	55	24
Grant		14			21	4	3	22	5	3	21	15	7
Greer		7			10	2		9		1	9	9	2
Harmon		4		1	5	1	1	8	1		9	2	
Harper		11			11	1	1	10	4	2	11	4	3
Haskell		6	1		10	1	2	11	10	1	10	23	2
Hughes		16		1	21	5	2	19	14	7	16	20	7
Jackson		45	1	4	40	10	10	41	28	18	46	60	27
Jefferson		8			5	3		2	8	1	2	8	
Johnston		7		1	10	15	3	9	24	2	7	43	5
Kay		136	3	12	136	45	20	133	104	29	142	131	39
Kingfisher		35		2	43	3	4	40	6	7	36	17	12
Kiowa		16		2	19	1	2	17	9	5	16	11	4
Latimer		13		3	16	10	1	12	15		10	22	1
LeFlore		30	2	3	42	21	6	47	43	8	50	85	8
Lincoln		9	1	1	23	3	4	29	6	12	30	31	12
Logan	X	35		4	29	2	6	42	12	16	46	31	34
Love		3			5	4		3	14		5	21	
McClain	X	9	1	1	17	3	4	16	12	7	24	41	18
McCurtain		17	2		27	16	5	30	31	6	32	37	6
McIntosh		13	2		20	9	2	26	24	5	23	30	5
Major		10			19	3	3	14	1	4	16	5	9
Marshall		3			7	5		9	12		9	21	2

LICENSED RNs BY EDUCATIONAL PREPARATION
Page 2

County	Urban Counties	1970 Diploma	1970 Associate Degree	1970 Baccalaureate	1975 Diploma	1975 Associate Degree	1975 Baccalaureate	1980 Diploma	1980 Associate Degree	1980 Baccalaureate	1985 Diploma	1985 Associate Degree	1985 Baccalaureate
Mayes		35	3	2	52	18	2	62	33	10	56	59	17
Murray		12		2	11	7	1	9	19	3	12	29	5
Muskogee		175	30	11	167	101	11	168	188	29	161	277	44
Noble		18		1	22	5	1	19	16	4	19	20	5
Nowata		10		1	13	2		12	7	1	11	12	3
Okfuskee		6			9	3	1	13	8	1	8	10	3
Oklahoma	X	1,876	31	256	2,063	217	572	2,012	687	1,035	2,068	1,260	1,607
Okmulgee		38	1	1	62	7	3	57	33	14	56	67	15
Osage	X	38	1	1	71	6	4	49	14	10	52	27	16
Ottawa		56	3	1	58	14	2	58	61	10	61	124	12
Pawnee		22		1	31	3	2	32	18	10	37	18	11
Payne		108	4	22	110	14	21	119	32	58	109	52	64
Pittsburg		84	6	4	72	33	12	66	66	20	60	104	26
Pontotoc		51	2	5	48	13	19	44	27	41	58	41	79
Pottawatomie	X	74	2	12	84	14	18	95	60	47	91	104	68
Pushmataha		5		1	9	2	3	10	12	5	9	21	2
Roger Mills		4			4			6			7	3	2
Rogers	X	58		3	101	10	11	135	43	35	148	95	48
Seminole		19			29	8	7	28	23	11	24	35	14
Sequoyah	X	6			21	5	2	23	29	8	24	37	10
Stephens		57	1	2	54	13	6	57	38	20	57	57	25
Texas		12		2	35	2	6	28	9	5	28	15	11
Tillman		15	4		15	10	1	9	8	2	13	11	1
Tulsa	X	1,430	33	114	1,686	160	307	1,726	714	723	1,716	1,272	1,201
Wagoner	X	18	2	2	63	10	6	75	32	13	88	77	21
Washington		137	3	11	153	6	21	151	38	43	150	58	57
Washita		15		2	15		4	11	3	7	10	9	8
Woods		30	1		29		1	27	4	5	29	8	6
Woodward		33	1	4	32		7	38	7	14	48	11	17
Total - State		6,155	191	640	7,152	1,153	1,393	7,186	3,397	2,859	7,339	5,989	4,456
Urban		4,341	101	498	5,096	598	1,112	5,120	2,049	2,283	5,263	3,781	3,657
Rural		1,814	90	142	2,056	558	281	2,066	1,348	576	2,076	2,208	799
% Urban		70.5	52.9	77.8	71.3	51.9	79.8	71.2	60.3	79.9	71.7	56.5	82.1
% Rural		29.5	47.1	22.2	28.7	48.1	20.2	28.8	39.7	20.1	28.3	43.5	17.9

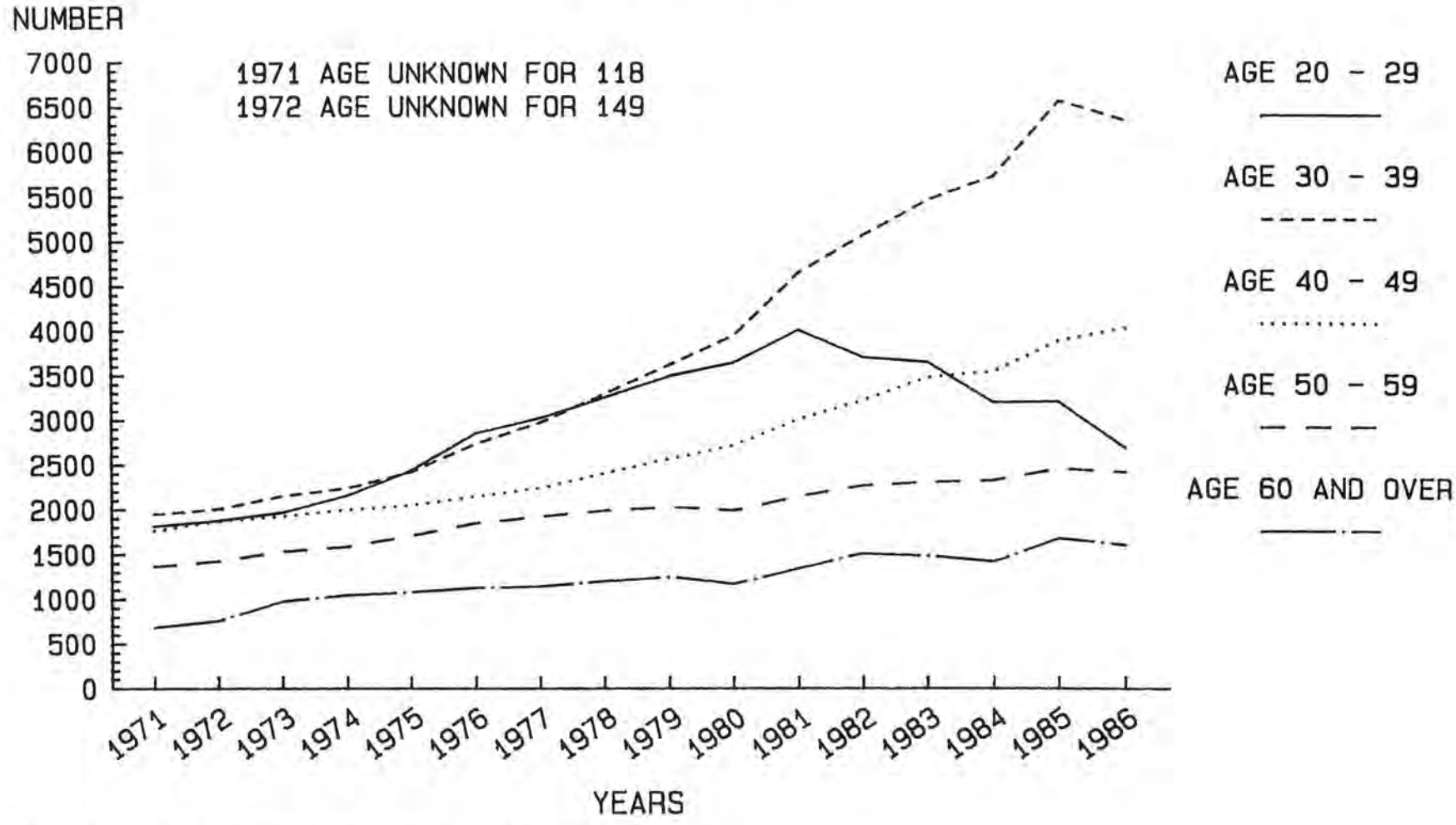
Source: Report of Nurse Population, Oklahoma Board of Nurse Registration and Nursing Education, FY 1970, 1975, 1980, and FY 1985.

CHART 1
REGISTERED NURSES
BY EDUCATIONAL PREPARATION



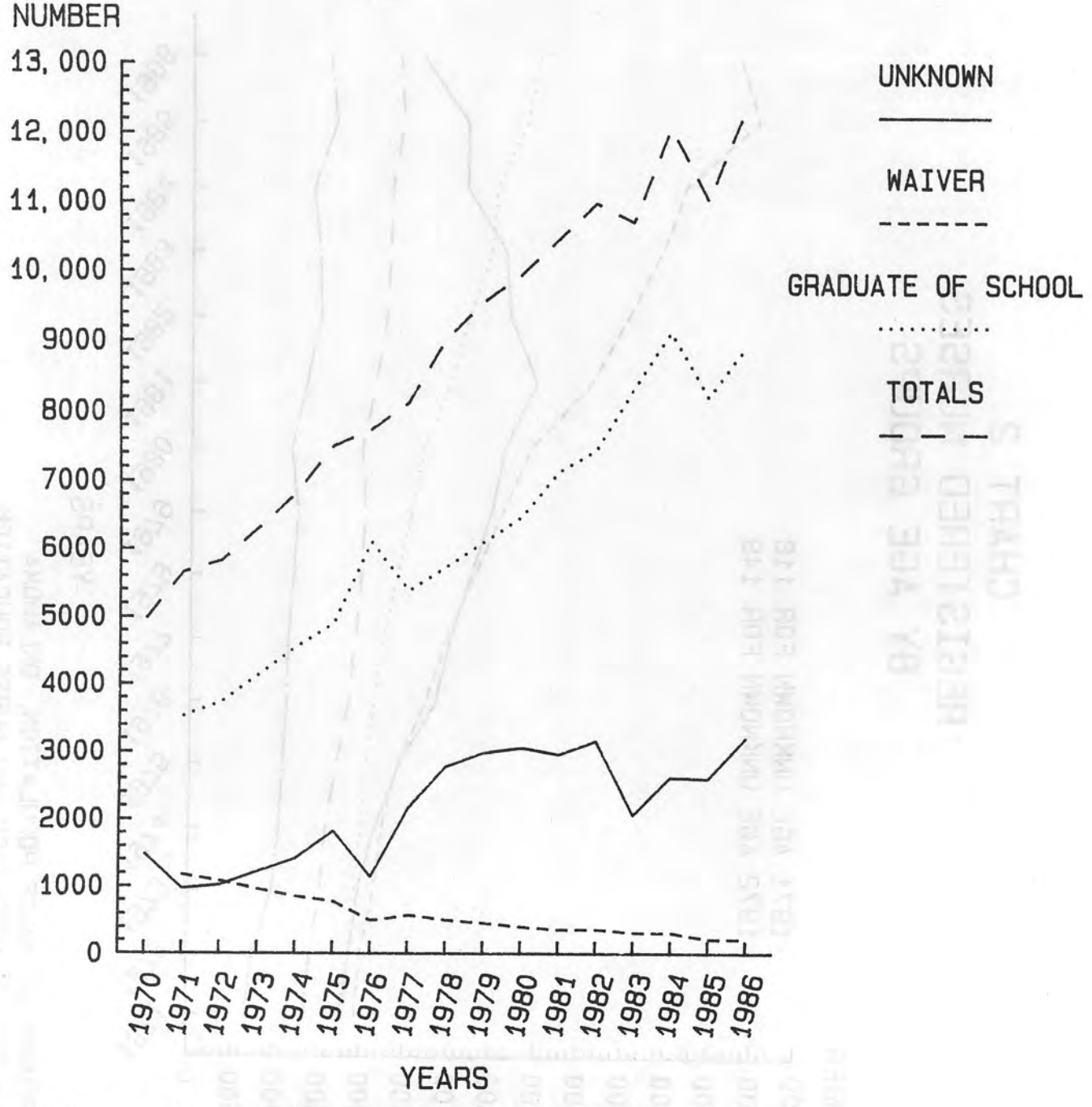
SOURCE: REPORT OF NURSE POPULATION, OKLAHOMA BOARD OF NURSE REGISTRATION AND NURSE EDUCATION, FISCAL YEARS 1970 - 1986

CHART 2
REGISTERED NURSES
BY AGE GROUPS



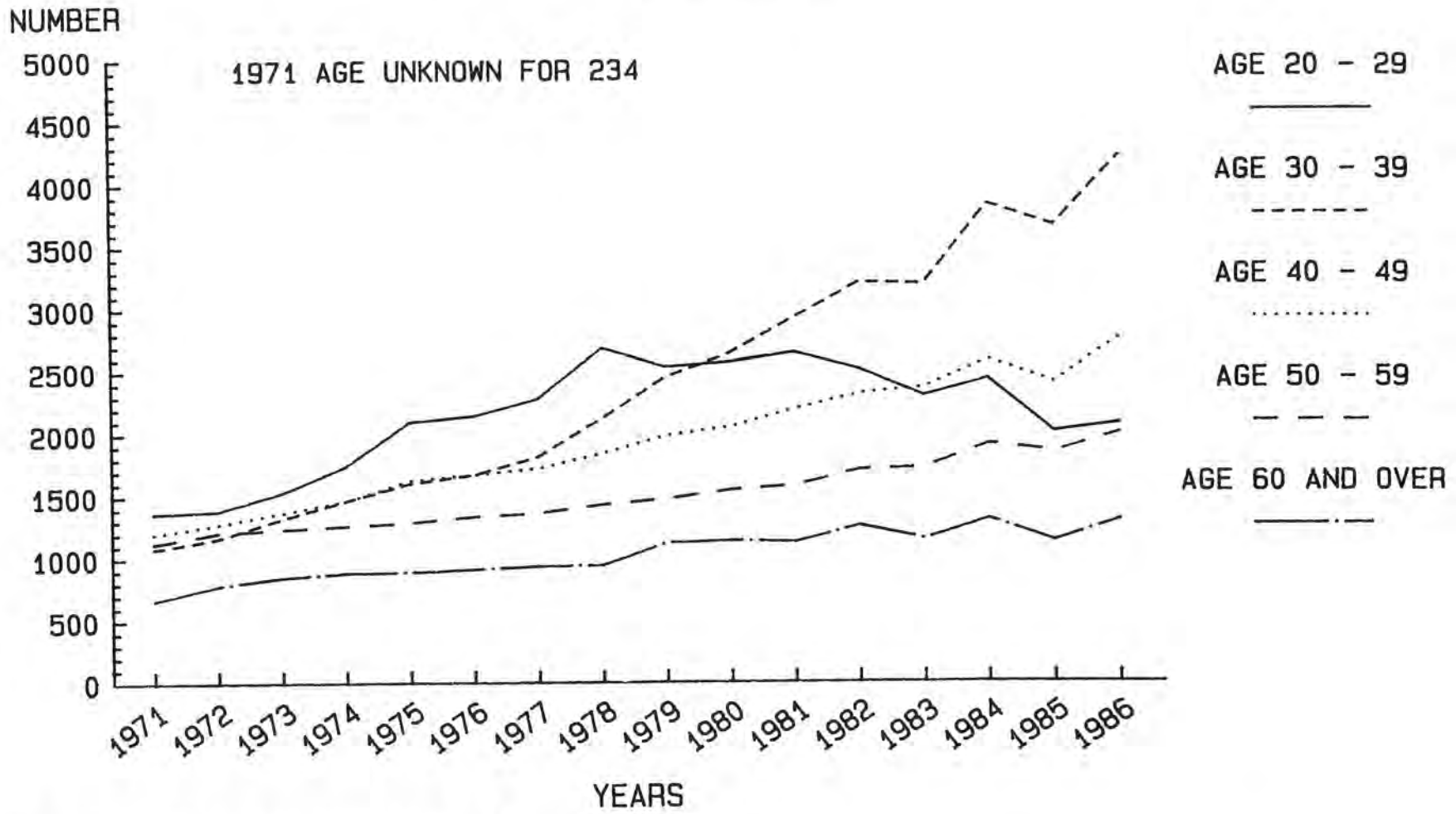
SOURCE: REPORT OF NURSE POPULATION, OKLAHOMA BOARD OF NURSE REGISTRATION AND NURSE EDUCATION, FISCAL YEARS 1970 - 1986

CHART 3
LICENSED PRACTICAL NURSES
BY EDUCATIONAL PREPARATION



SOURCE: REPORT OF NURSE POPULATION, OKLAHOMA BOARD OF NURSE REGISTRATION AND NURSE EDUCATION, FISCAL YEARS 1970 - 1986

CHART 4
LICENSED PRACTICAL NURSES
BY AGE GROUPS



SOURCE: REPORT OF NURSE POPULATION, OKLAHOMA BOARD OF NURSE REGISTRATION AND NURSE EDUCATION, FISCAL YEARS 1970 - 1986

TABLE 11
EMPLOYED REGISTERED NURSE POSITIONS

	1971	1975	1980	1985
Administrator or Assistant	321	383	436	628
Consultant	36	90	119	165
Supervisor or Assistant	1,052	1,163	1,398	1,686
Instructor	253	379	480	565
Head Nurse or Assistant	927	1,133	1,366	1,706
General Duty or Staff	3,174	3,488	5,683	9,421
Other/Not Reported	235	427	418	505
Total Employed	5,998	7,063	9,900	14,676

Legend: *Separates positions which are totally administrative in nature from those which are principally patient-care oriented.

Source: Report of Nurse Population in Oklahoma, Oklahoma Board of Nurse Registration and Nursing Education, 1971, 1975, 1980, and 1985.

TABLE 12
EMPLOYED REGISTERED NURSES
BY FIELD OF EMPLOYMENT

	1971	1975	1980	1985
Hospital	4,099	4,896	6,902	10,987
Nursing Home	440	397	416	443
School of Nursing	189	358	403	456
Private Duty	179	170	249	226
Community Health	283	345	498	692
School Nurse	202	259	238	277
Industrial Nurse	92	88	196	156
Office Nurse	401	463	634	814
Other	113	87	362	625
Unknown			2	
Total Employed	5,998	7,063	9,900	14,676

Source: Report of Nurse Populations in Oklahoma, Oklahoma Board of Nurse Registration and Nursing Education, 1971, 1975, 1980 and 1985.

TABLE 13
EMPLOYED PRACTICAL/VOCATIONAL NURSES
BY FIELD OF EMPLOYMENT

	1971	1975	1980	1985
Hospital	3,101	3,593	4,106	4,568
Nursing Home	879	1,191	1,355	1,845
Private Duty	309	256	414	618
Community Health	67	78	126	218
Industrial Nurse	26	46	96	174
Office Nurse	265	400	678	995
Other	49	122	102	3
Unknown			3	
Total Employed	4,696	5,686	6,880	8,423

Source: Report of Nurse Population in Oklahoma, Oklahoma Board of Nurse Registration and Nursing Education, 1971, 1975, 1980 and 1985.

TABLE 14
EMPLOYED NURSE MANPOWER
BY COUNTY

	Urban	Registered Nurses				Practical/Vocational Nurses			
		1971	1975	1980	1985	1971	1975	1980	1985
Adair		12	15	26	27	12	17	24	45
Alfalfa		19	16	22	22	4	10	12	19
Atoka		8	9	11	18	20	21	22	27
Beaver		10	8	10	16	9	9	4	7
Beckham		21	31	33	56	42	51	60	74
Blaine		28	21	24	36	18	21	24	33
Bryan		21	33	44	81	50	42	45	92
Caddo		32	33	41	59	32	46	67	95
Canadian	X	62	98	185	382	39	82	131	179
Carter		61	92	110	166	102	112	117	152
Cherokee		41	52	93	138	29	43	43	62
Choctaw		10	14	24	28	15	23	43	52
Cimarron		5	7	6	10	7	10	3	7
Cleveland	X	249	343	532	851	108	173	265	395
Coal		7	6	8	14	16	21	24	23
Comanche	X	191	210	261	402	191	240	297	331
Cotton		5	7	11	11	7	8	8	9
Craig		24	31	44	67	52	51	41	46
Creek	X	51	60	97	134	63	101	146	156
Custer		76	63	82	99	60	69	87	98
Delaware		21	20	30	43	31	43	32	48
Dewey		4	5	8	13	7	9	10	14
Ellis		16	26	31	36	22	30	29	32
Garfield	X	208	235	259	345	125	153	159	201
Garvin		29	30	44	54	40	51	72	145
Grady		38	57	81	112	35	50	76	84
Grant		12	12	16	29	9	4	5	10
Greer		6	3	7	18	16	18	22	23
Harmon		6	5	8	9	14	10	12	14
Harper		13	10	9	13	14	13	14	21
Haskell		6	7	15	29	11	14	26	33
Hughes		14	15	31	33	33	35	46	50
Jackson		36	48	66	112	35	39	50	83
Jefferson		7	4	8	9	10	11	17	20
Johnston		11	13	26	51	25	17	14	22
Kay		120	141	173	240	104	107	101	142
Kingfisher		27	31	33	49	7	16	24	29
Kiowa		15	18	24	26	31	34	36	50
Latimer		10	20	17	26	23	21	18	23
LeFlore		37	50	72	117	61	75	120	134
Lincoln		15	20	32	60	37	49	74	98
Logan	X	33	26	54	96	38	46	57	65
Love		3	8	15	24	5	5	6	10
McClain	X	14	16	20	73	22	30	40	74
McCurtain		20	37	52	61	25	38	66	93
McIntosh		21	22	33	45	9	19	32	36
Major		9	15	18	22	7	15	16	26

TABLE 14 (Continued)
EMPLOYED NURSE MANPOWER BY COUNTY

		Registered Nurses				Practical/Vocational Nurses			
	Urban	1971	1975	1980	1985	1971	1975	1980	1985
Marshall		6	12	16	27	16	17	12	14
Mayes		42	58	83	108	47	62	89	105
Murray		12	16	28	38	33	34	41	48
Muskogee		182	199	266	370	137	184	209	243
Noble		15	19	24	29	11	13	20	20
Nowata		10	11	15	21	28	29	38	41
Okfuskee		6	7	14	17	15	19	20	26
Oklahoma	X	1,818	2,107	2,779	4,127	1,047	1,288	1,434	1,597
Okmulgee		52	48	67	111	54	70	113	124
Osage	X	45	60	60	77	49	46	60	53
Ottawa		44	54	89	178	75	91	106	126
Pawnee		21	30	46	56	27	31	30	44
Payne		101	104	152	182	68	77	101	137
Pittsburg		64	80	103	150	109	99	153	169
Pontotoc		52	58	80	157	99	115	122	152
Pottawatomie	X	60	80	146	219	126	154	161	210
Pushmataha		7	12	18	25	15	19	29	47
Roger Mills		4	3	5	9	12	13	18	15
Rogers	X	55	85	157	246	52	61	78	111
Seminole		19	33	48	61	62	68	74	79
Sequoyah	X	11	20	47	58	26	33	45	66
Stephens		50	46	93	120	76	77	104	130
Texas		20	26	29	40	9	10	12	30
Tillman		20	17	14	21	4	8	15	26
Tulsa	X	1,357	1,573	2,344	3,422	578	683	823	905
Wagoner	X	35	60	90	149	29	34	50	61
Washington		132	127	162	209	116	131	147	192
Washita		13	12	17	23	27	37	44	54
Woods		23	22	23	33	17	13	25	32
Woodward		37	31	39	61	60	68	70	84
Total		5,997	7,063	9,900	14,676	4,696	5,686	6,880	8,423
Urban		4,189	4,973	7,031	10,581	2,493	3,124	3,746	4,404
Rural		1,808	2,090	2,869	4,095	2,203	2,562	3,134	4,019

Source: Report of Nurse Population, Oklahoma Board of Nurse Registration and Nursing Education, FY 1970, 1975, 1980, and FY 1985.

TABLE 15

COMPARISON OF ESTIMATED SUPPLY AND PROJECTION
OF RNs AND LPNs - OKLAHOMA AND UNITED STATES
1980 - 2000

	Oklahoma					United States			
Year	Population	Licensed RNs	Ratio Per 100,000 Population	Licensed LPNs	Ratio Per 100,000 Population	Licensed RNs	Ratio Per 100,000 Population	Licensed LPNs	Ratio Per 100,000 Population
1980	3,025,487	13,442	444	9,943	329	1,272,900	560		
1981	3,107,000	15,144	487	10,457	337	1,315,500	574		
1982	3,231,000	15,740	487	10,979	340	1,357,300	586		
1983	3,311,000	16,353	494	10,702	323	1,404,200	600	539,500	231
1984	3,310,000	16,183	489	12,064	364	1,453,900	613	561,000	237
1985	3,301,000	17,784	539	11,018	334	1,504,300	628	528,800	243
1986		17,061		12,337		1,553,400	642	606,400	251
1987						1,600,700	655	628,400	257
1988						1,650,100	670	656,500	267
1989						1,695,200	683	675,700	272
1990	3,503,400					1,739,100	695	693,500	277
1995	3,746,000					1,932,100	743	783,900	302
2000	3,944,500					2,079,400	775	859,200	320

Sources:
1. Oklahoma Population Reports, Population Estimates 1980-1985, Oklahoma Employment Security Commission, Released July 1986.
2. Oklahoma Population Reports, Population Projections 1980-2000, Oklahoma Employment Security Commission, Released July 1985.
3. Fifth Report to the President and Congress on the Status of Health Personnel in the United States, U.S. DHHS, March 1986.
4. Report of Nurse Population in Oklahoma, Oklahoma Board of Nurse Registration and Nursing Education, FY 1980-1986.