Center for Health Workforce Planning
Bureau of Health Care Access
Iowa Department of Public Health

Trends in Nursing Supply and Education

January 2006

Data source: Iowa Board of Nursing

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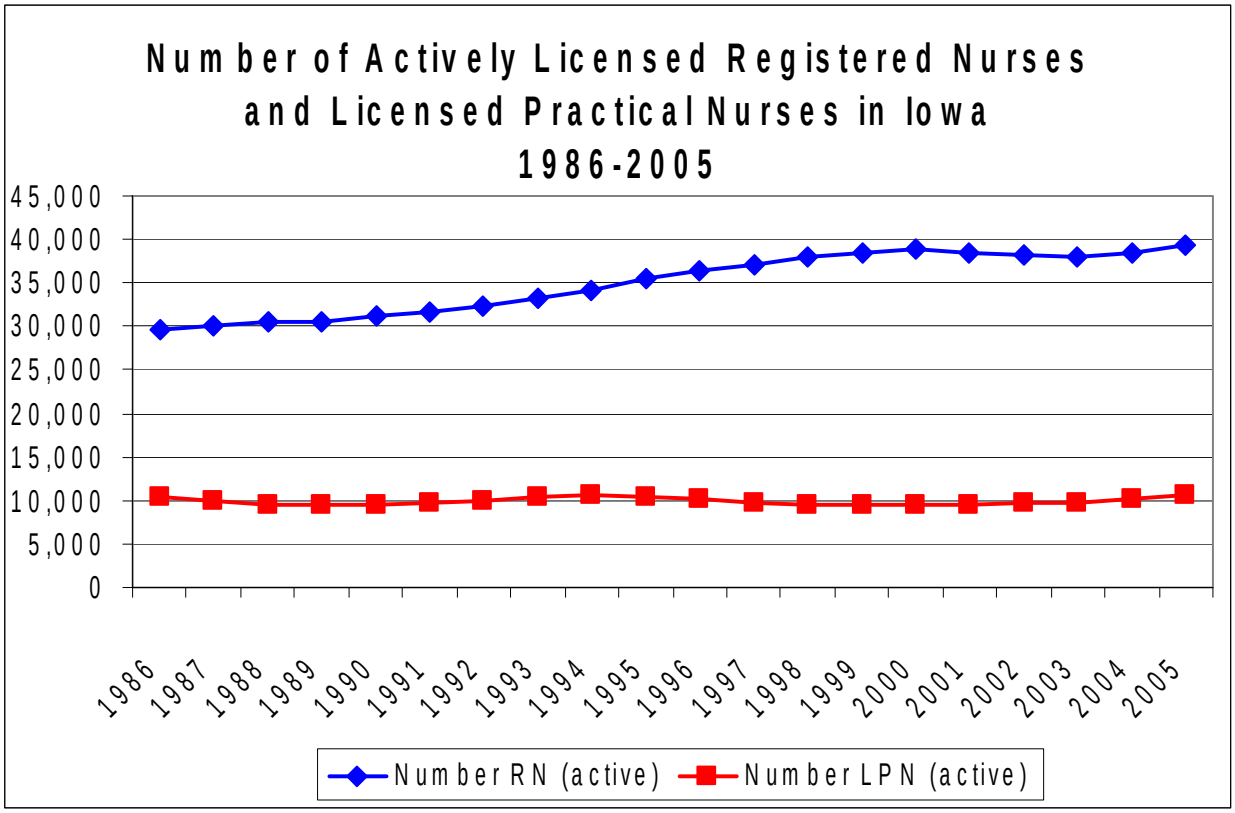
SECTION 1: NURSING SUPPLY

The following charts were prepared using Iowa Board of Nursing annual reports from 1986 to 2005. The graphs illustrate trends and provide a basis of comparison for Registered Nurse (RN) and Licensed Practical Nurse (LPN) Iowa data with national projections. The tables were prepared by the Iowa Department of Public Health, Center for Health Workforce Planning.

Note: In Iowa, nurses may hold RN and LPN licensures concurrently. On November 1, 2005, 1,047 individuals residing in Iowa held both active RN and LPN licensure. For this reason, the categories are not mutually exclusive on the following charts.

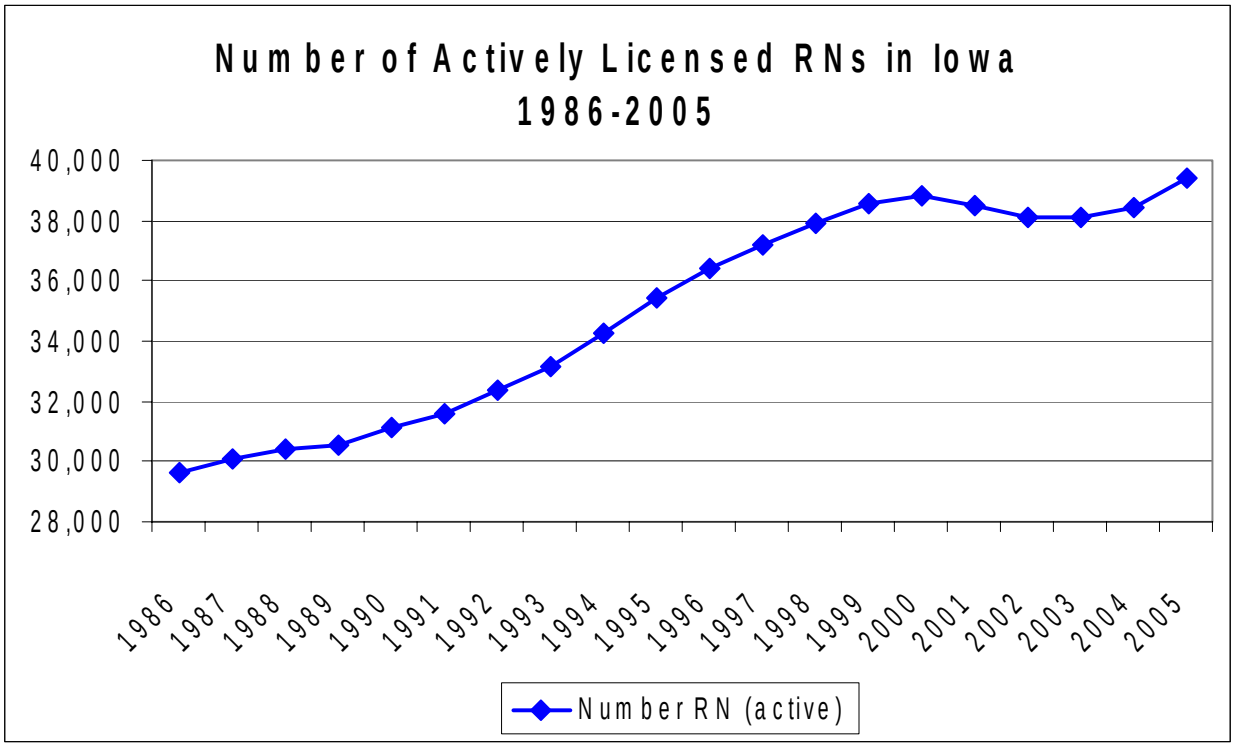
Chart 1



The number of active RNs shows a slight, steady increase since 1986. The number of active LPNs has been relatively steady with only minor fluctuations.

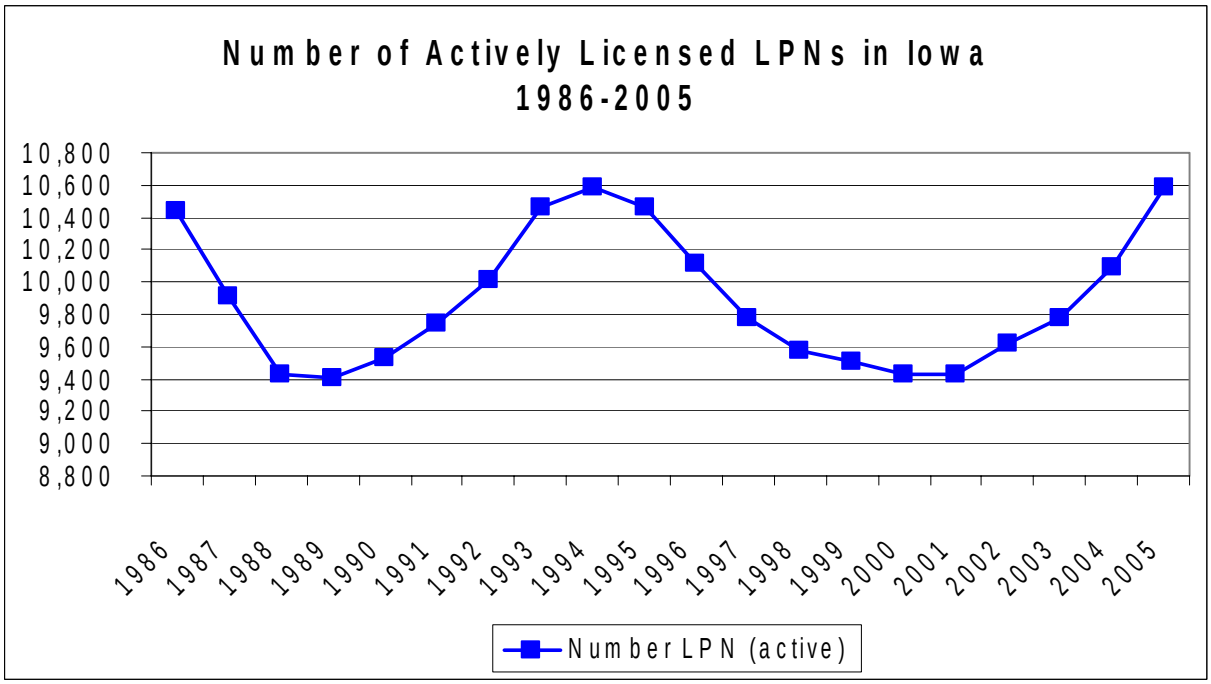
Note: The Nurse Licensure Compact became effective in Iowa on July 1, 2000. For information about the multi-state licensure compact, contact the Iowa Board of Nursing at www.state.ia.us/nursing.

Chart 2



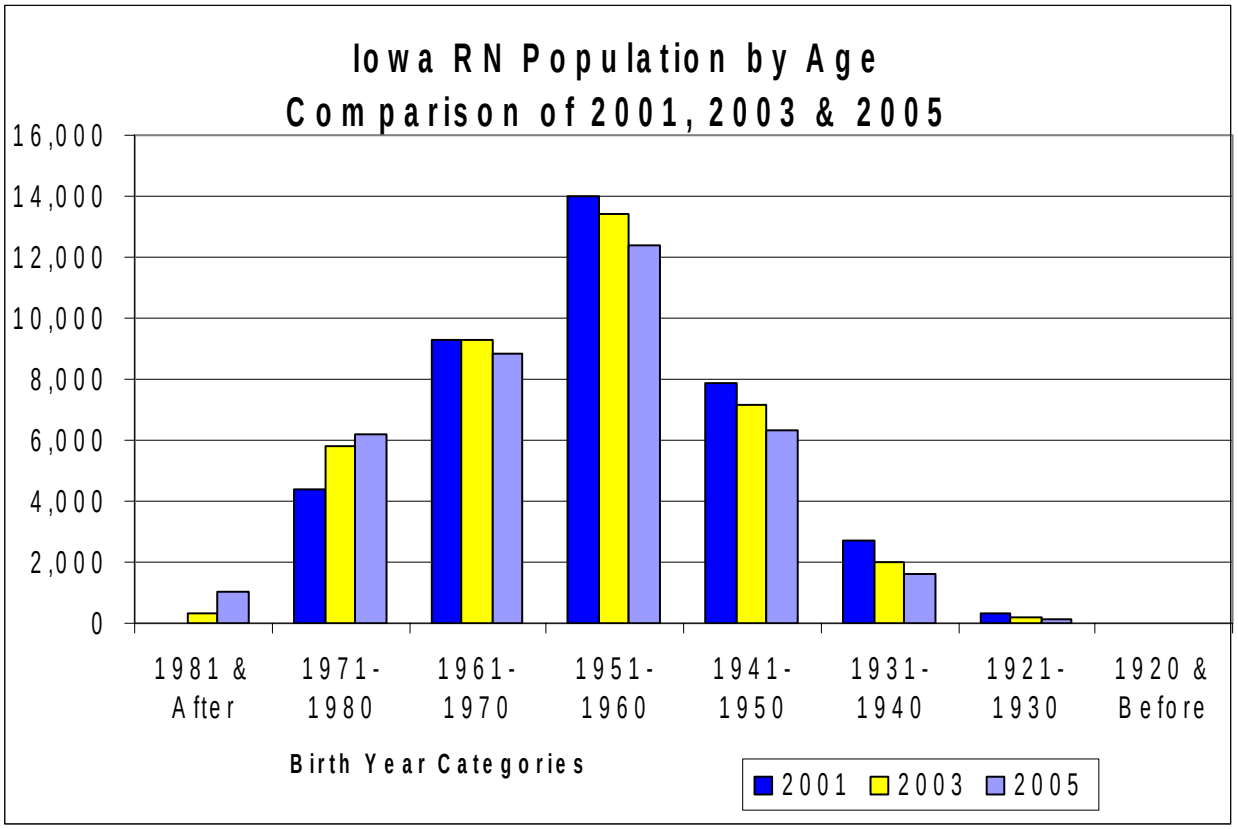
The number of active RNs in Iowa increased from 29,649 in 1986 to 39,423 in 2005. The trend reflects a steady increase until 2000. Between 2000 and 2003, there was a net loss of 748 RNs. The number of RNs increased by 959 between 2004 and 2005.

Chart 3



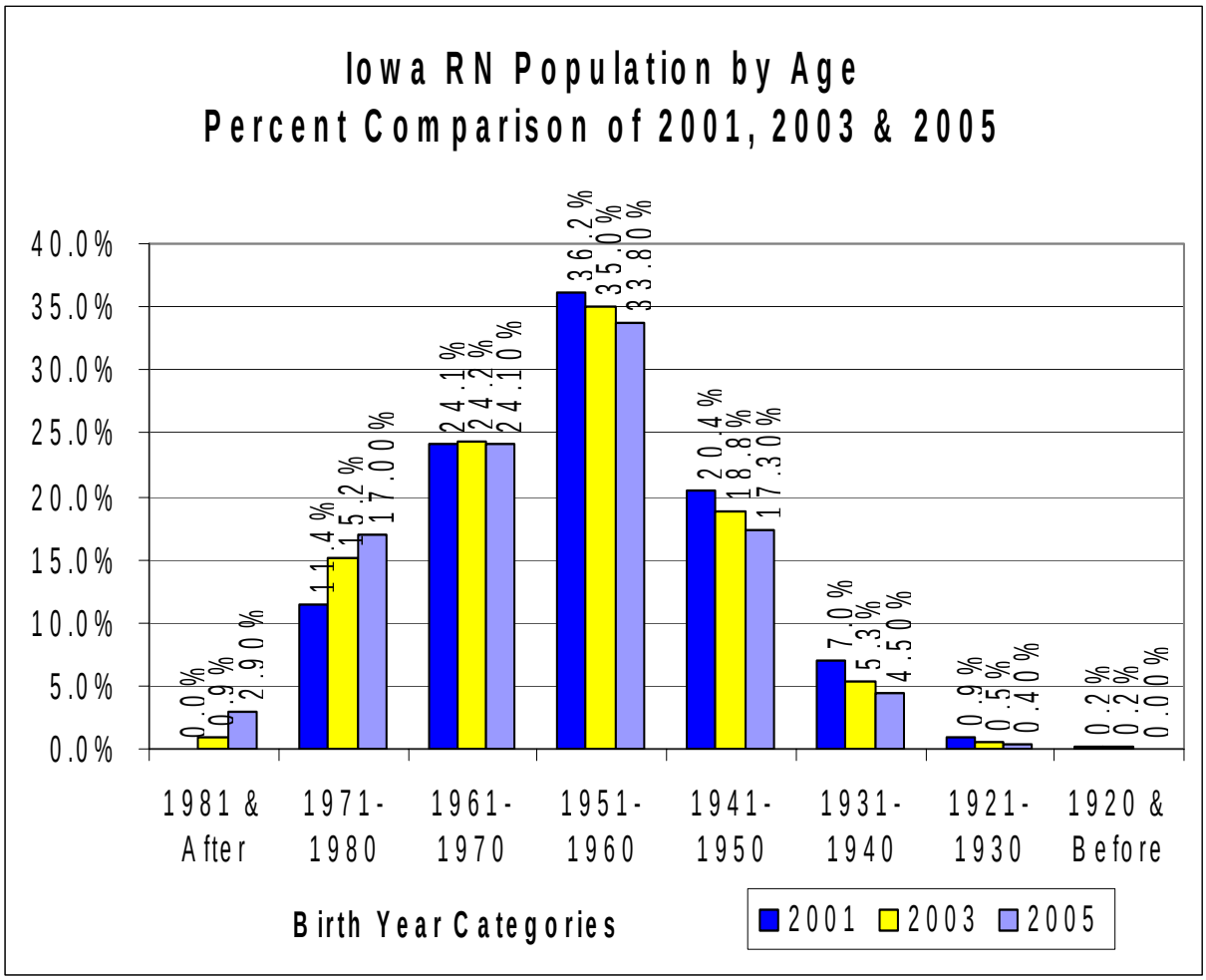
The number of active LPNs in Iowa increased from 10,435 in 1986 to 10,588 in 2005, a net gain of 153. The number of LPNs increased by 495 between 2004 and 2005.

Chart 4



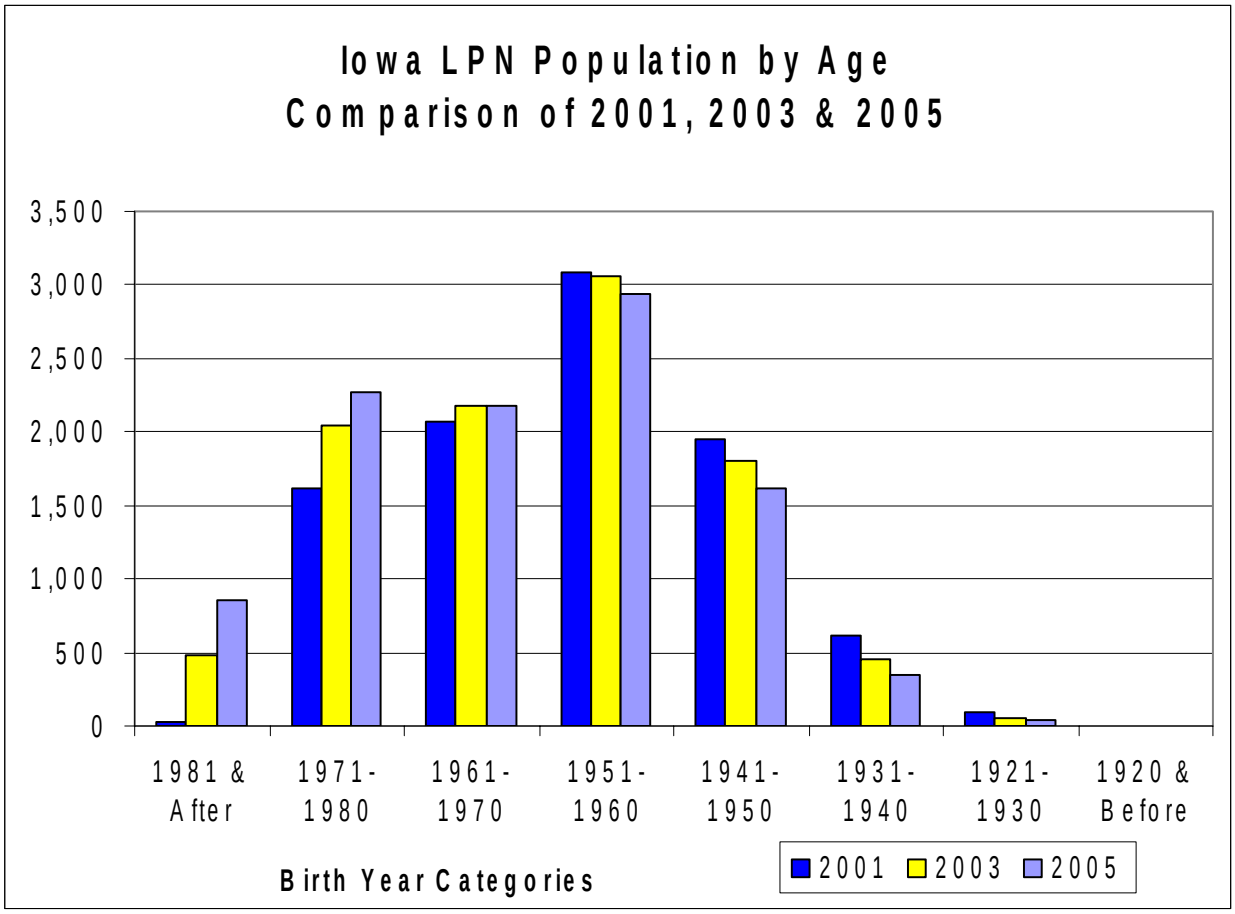
There has been a net increase in the number of actively licensed RNs born after 1970. The total number of RNs in all other age groups experienced a net decline since 2001. In 2005, the largest cohort of RNs is between 45 and 54 years of age.

Chart 5



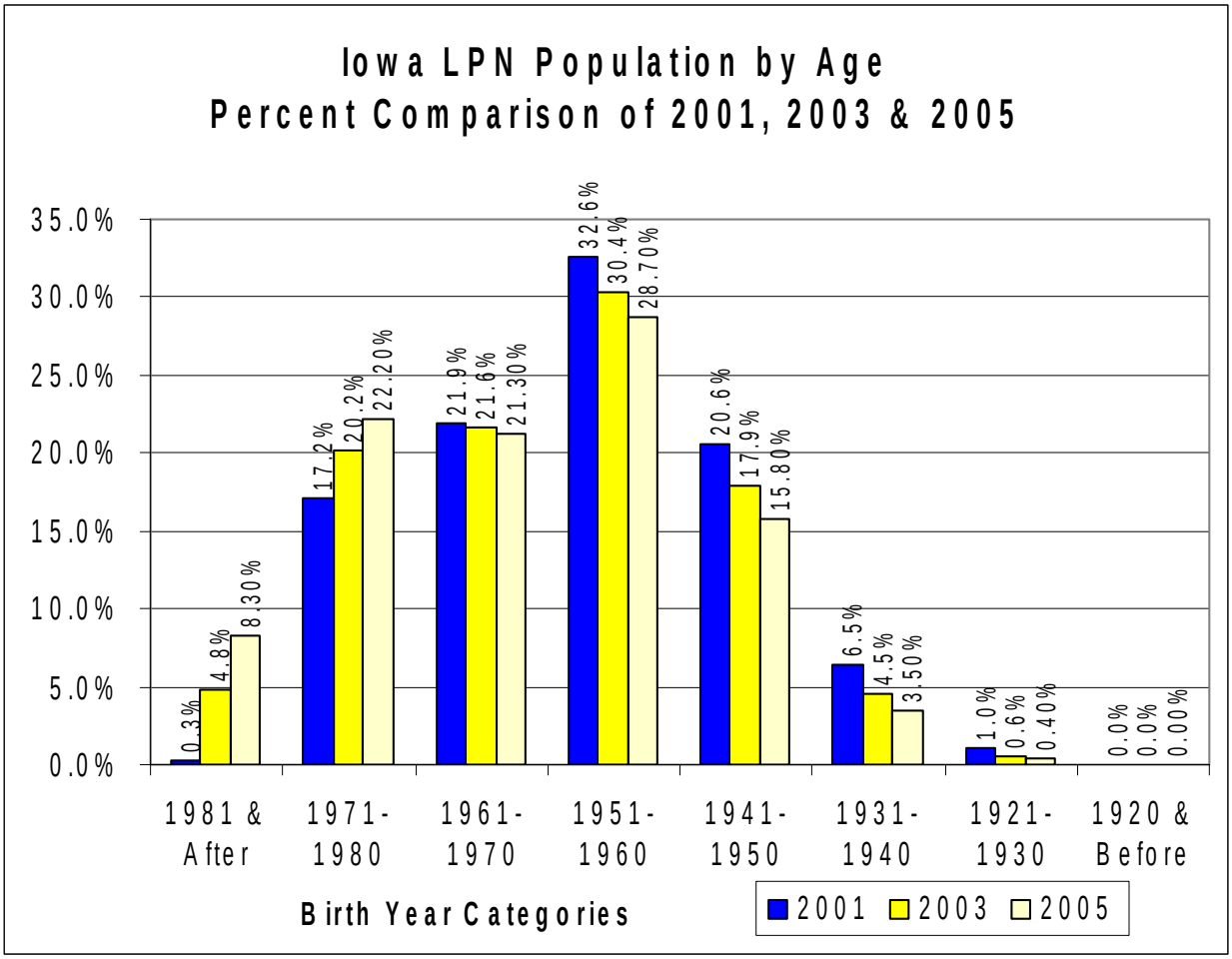
The largest percentage (34%) of RNs licensed in Iowa range in age from 45 to 54. Fifty-six percent are 45 years of age or older. Twenty percent are younger than 35 years of age.

Chart 6



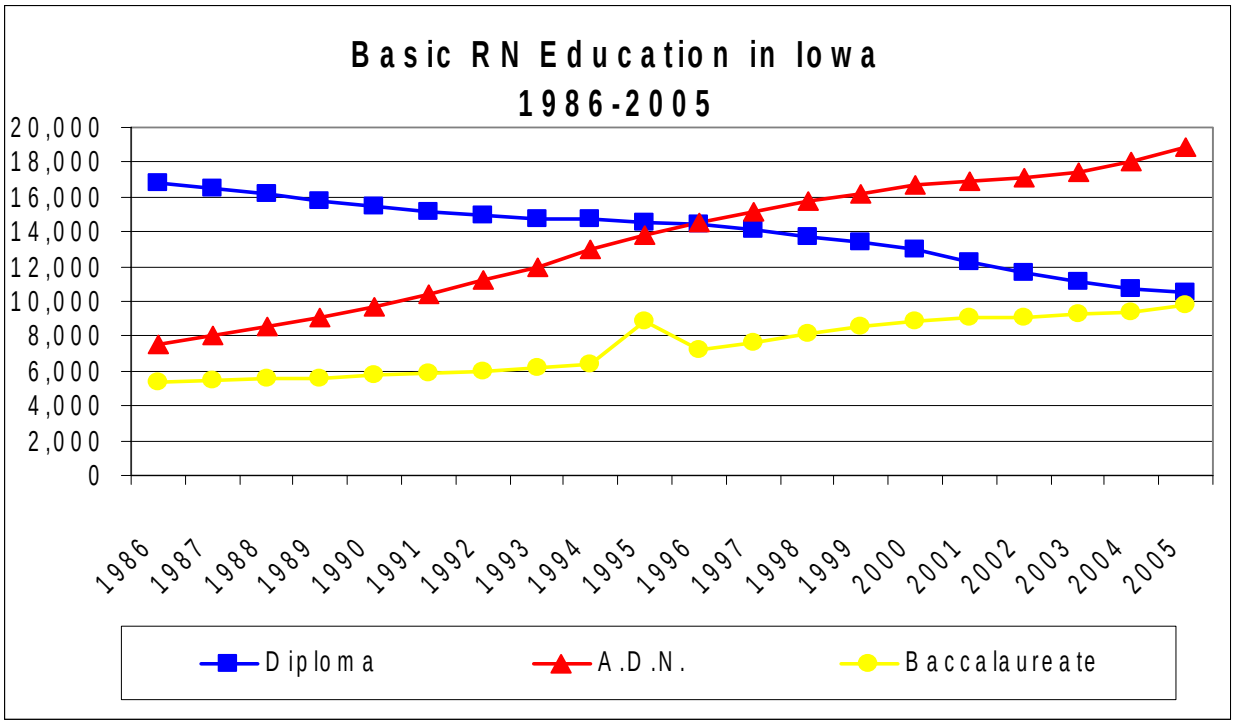
There has been a net increase in the number of actively licensed LPNs born after 1970. The number of LPNs aged 35 to 44 remained steady between 2003 and 2005. In 2005, the largest cohort of LPNs is between 45 and 54 years of age.

Chart 7



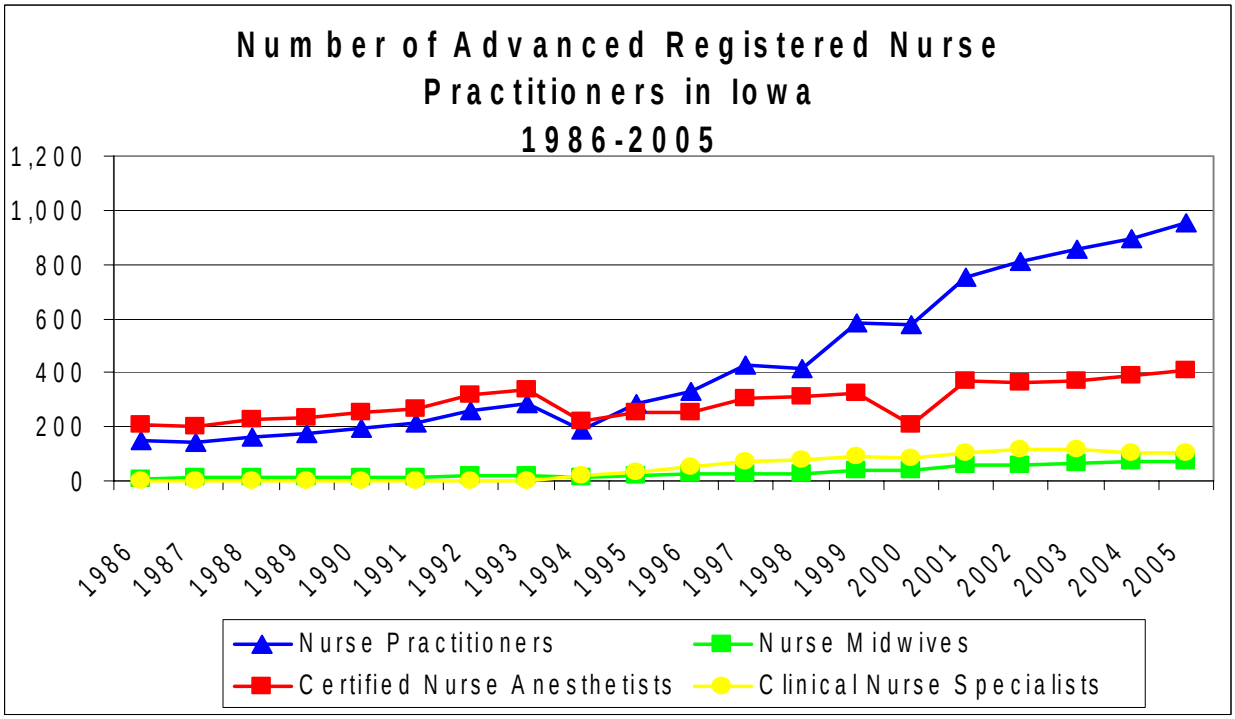
The largest percentage (29%) of LPNs licensed in Iowa range in age from 45 to 54. The majority (51%) are 44 years of age or younger. LPNs born after 1970 (younger than 35) have increased by 13.1% since 2001.

Chart 8



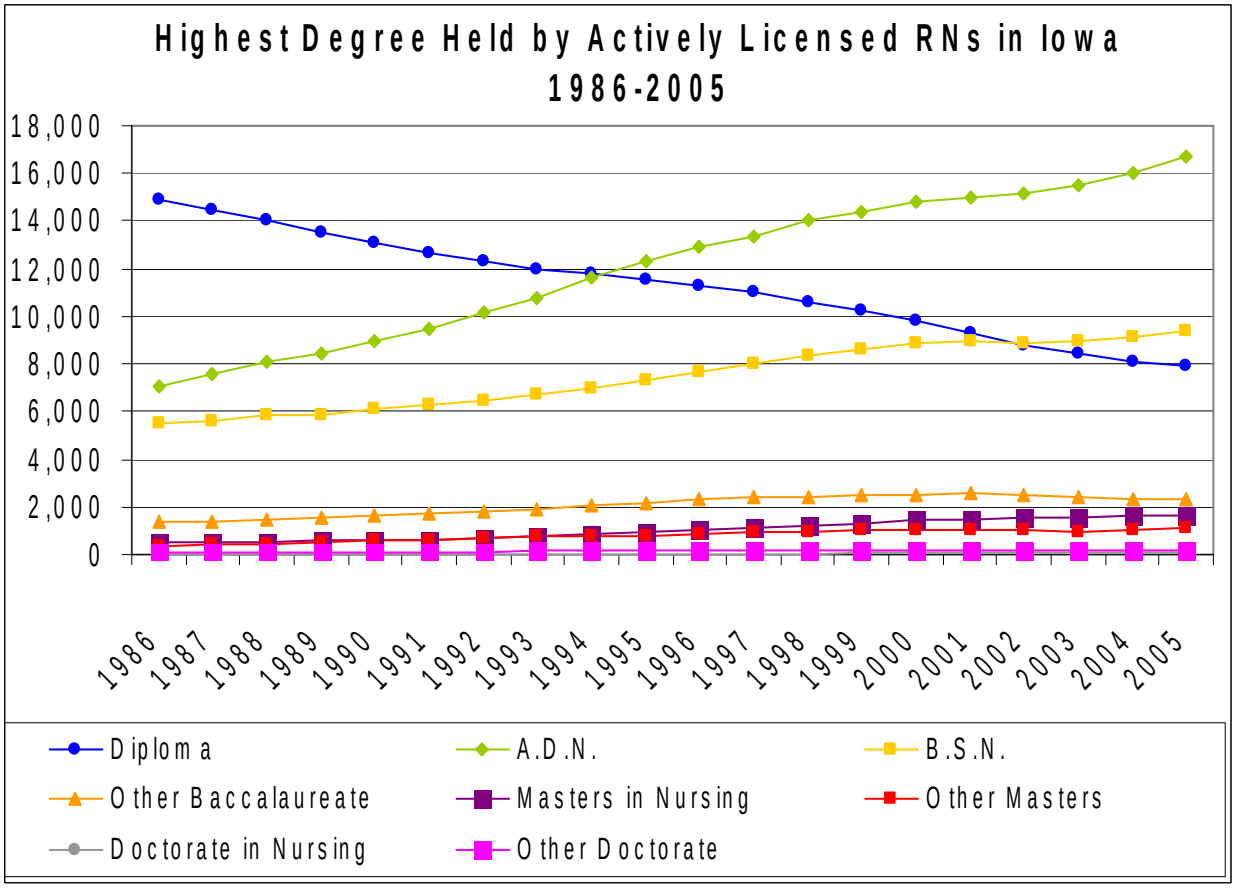
The basic levels of RN education include Diploma, Associate Degree in Nursing and Baccalaureate in Nursing. Between 1986 and 2005, an increasing number of RNs reported their basic education as an Associate or Baccalaureate degree.

Chart 9



The number of Advanced Registered Nurse Practitioners (ARNPs) in Iowa increased in all categories between 1986 and 2005. The most significant increase occurred among nurse practitioners.

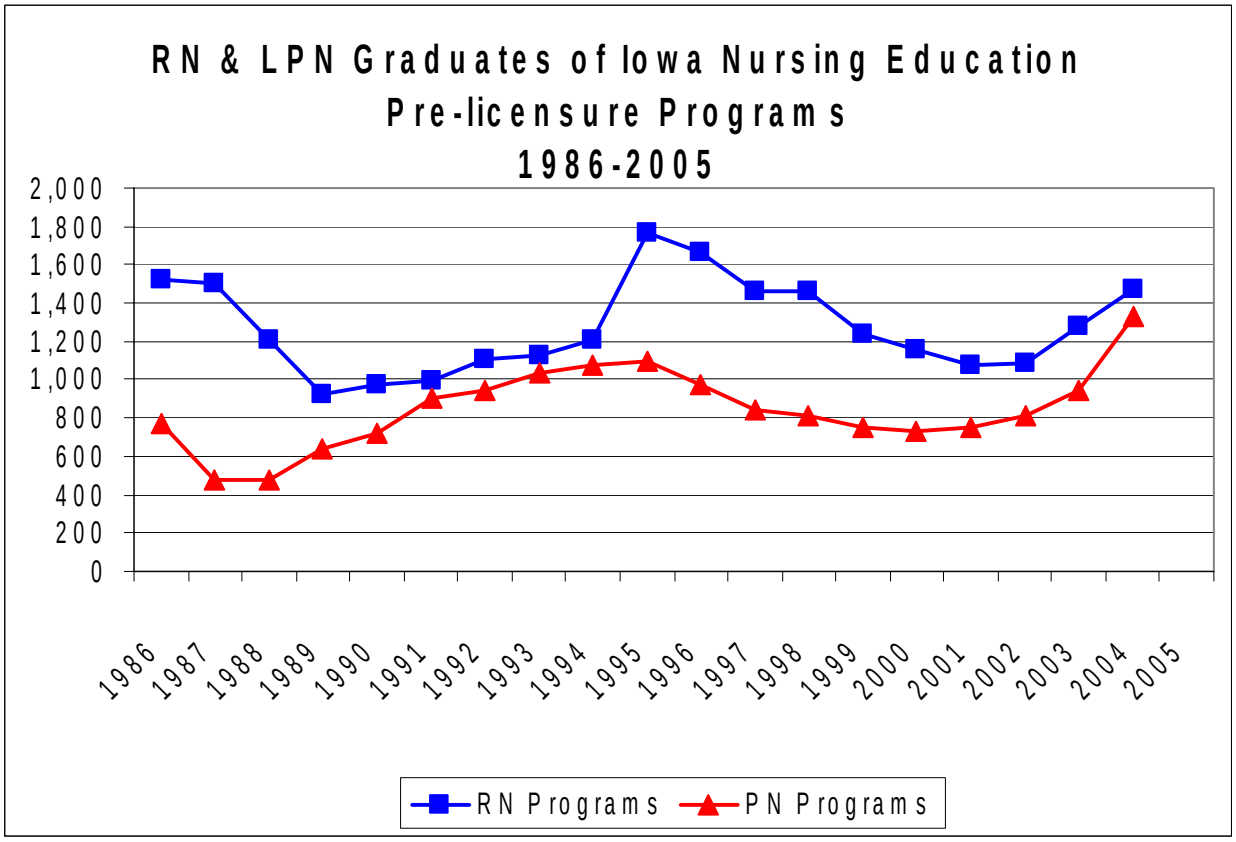
Chart 10



All degree categories identified by RNs as their highest have shown an increase since 1986 with the exception of the Diploma. The greatest increase was found among RNs who reported the Associate Degree in Nursing as their highest degree.

Note: Faculty members who teach nursing theory must hold a master's degree in nursing or an applicable field, or make progress toward such a degree.

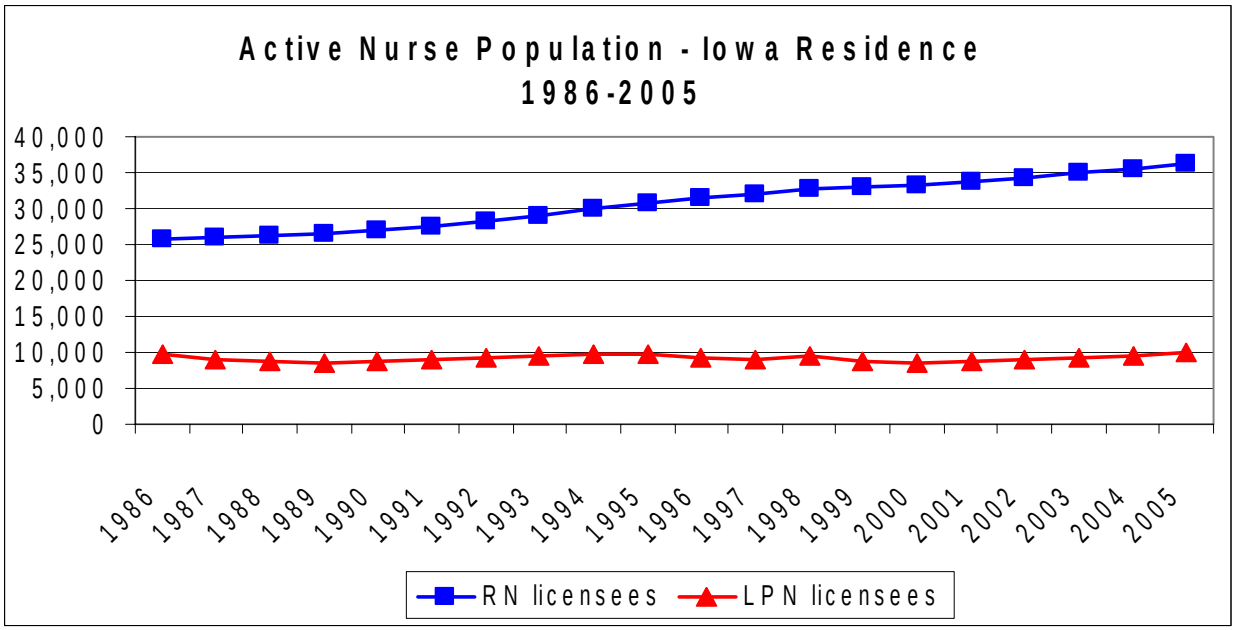
Chart 11



The number of graduates from RN and LPN pre-licensure programs declined in the late 1980s. An increase in graduates began in the early 1990s, peaking for both RNs and LPNs in 1995 and 1996. Following another decline, the number of graduates has steadily increased since 2001.

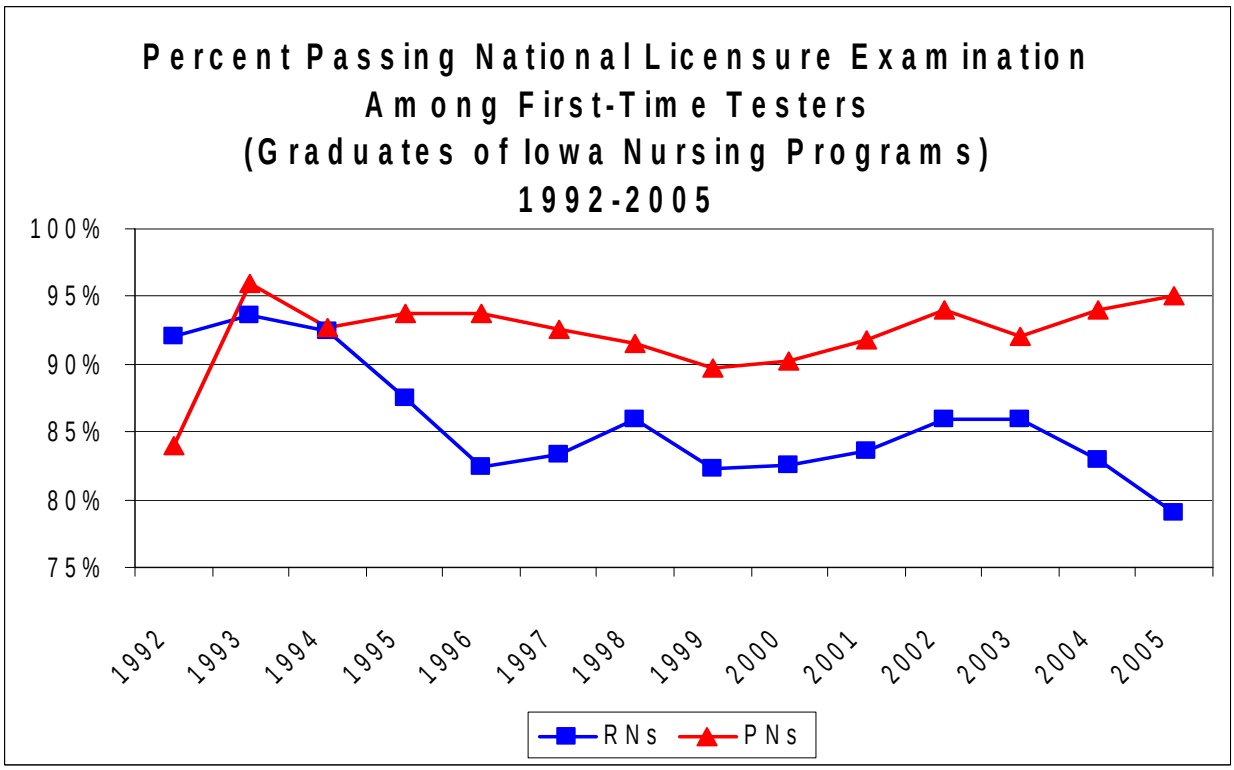
Note: Most nursing education programs at Iowa community colleges are built on a career ladder concept that prepares graduates to apply for LPN licensure upon completion of the first level (year) and RN licensure upon completion of the second level (year). At least two-thirds of PN graduates from Iowa programs proceed directly to an RN program.

Chart 12



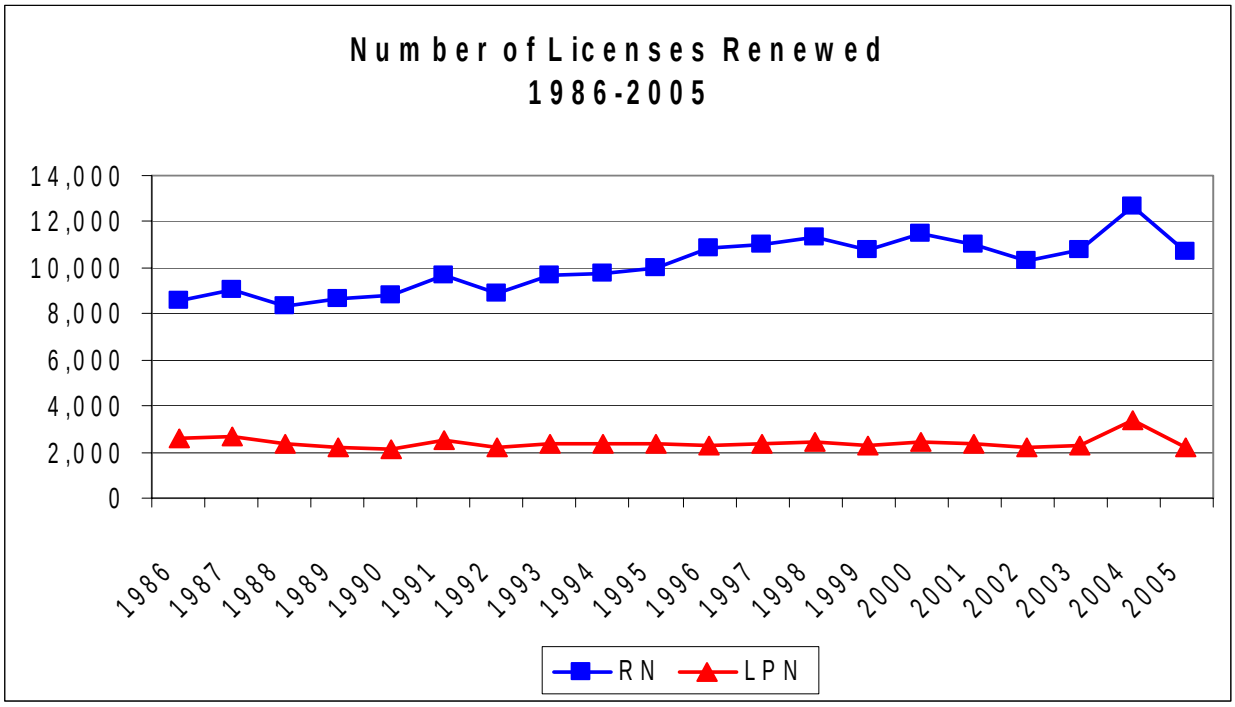
The number of RN residents in Iowa showed a slight, steady increase between 1986 and 2005. In the same time period, the number of LPN residents in Iowa fluctuated. Recent trends indicate an increased number of LPN residents.

Chart 13



Note: The State Board Test Pool Examination (SBTPE) was provided from 1946-1982. The National Council Licensure Examination (NCLEX) has been provided from 1982 to present. After 1988, NCLEX results were reported as Pass/Fail. The examination was converted to computerized adaptive testing (CAT) in April 1994.

Chart 14



Note: RN and LPN license renewals are conducted on a three-year cycle.

SECTION 2: NURSING EDUCATION

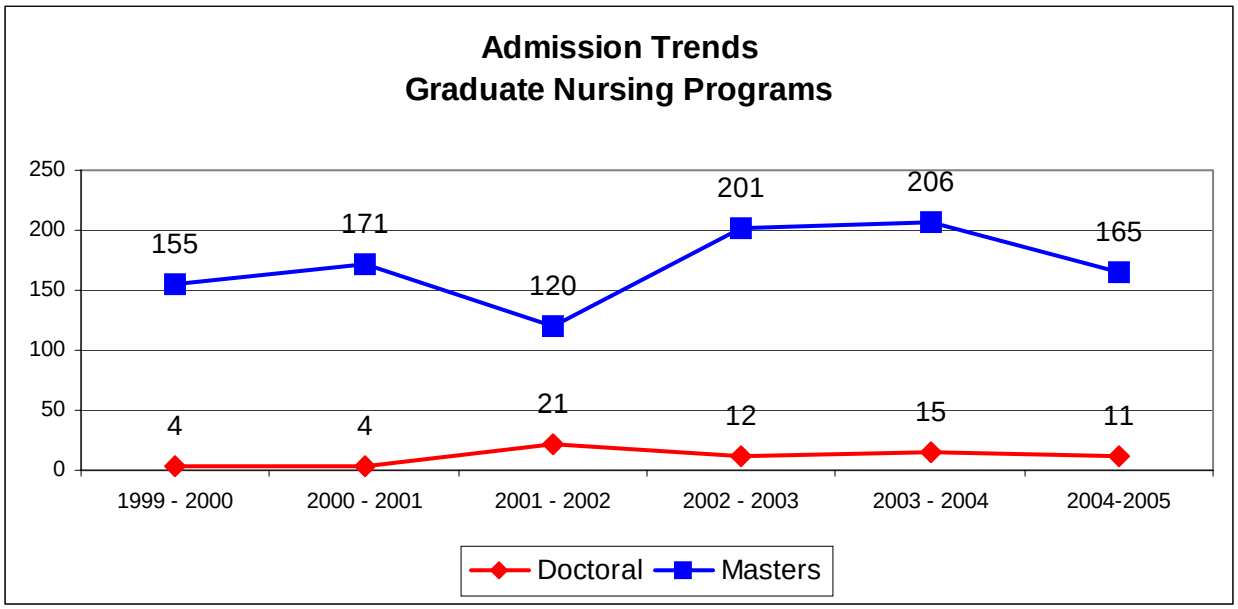
Nursing Education Programs

Chart 15 Number of Nursing Education Programs by Type (1986-2005)

Program	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2005
Doctoral	0	0	1	1	1	1	1	1	1	1	1
Post Masters	0	0	0	0	0	2	3	5	5	4	4
Masters	3	3	3	3	3	3	5	5	5	5	5
Professional Masters										1	1
Baccalaureate	14	14	14	14	14	15	14	14	13	14	15
Associate Degree	20	20	22	24	25	26	27	26	26	26	26
Practical Nursing	24	24	28	29	29	30	29	29	28	29	33
Diploma	8	5	5	5	5	5	4	0	0	0	0

Admission Data

Chart 16

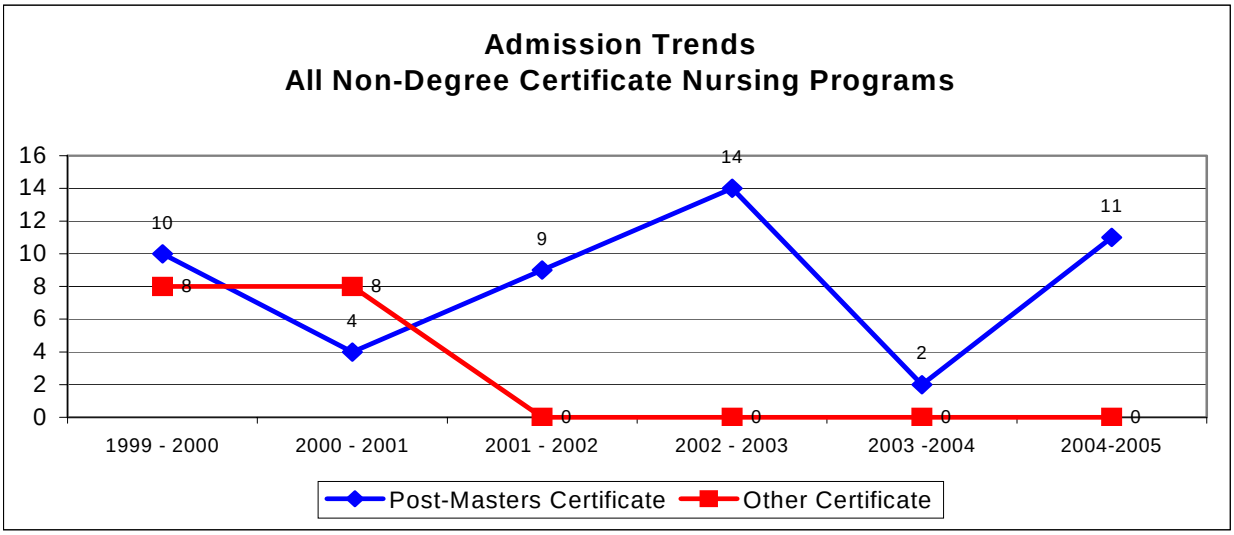


Between August 1, 2004 and July 31, 2005: **11 students were admitted to Iowa's Doctoral program**, a decrease of 27% compared to last year and an increase of 175% compared to five years ago.

Between August 1, 2004 and July 31, 2005: **165 students were admitted to Iowa's academic Masters programs**, a decrease of 20% compared to last year and an increase of 7% compared to five years ago.

In 2005, no graduate programs in nursing reported students on waiting lists.

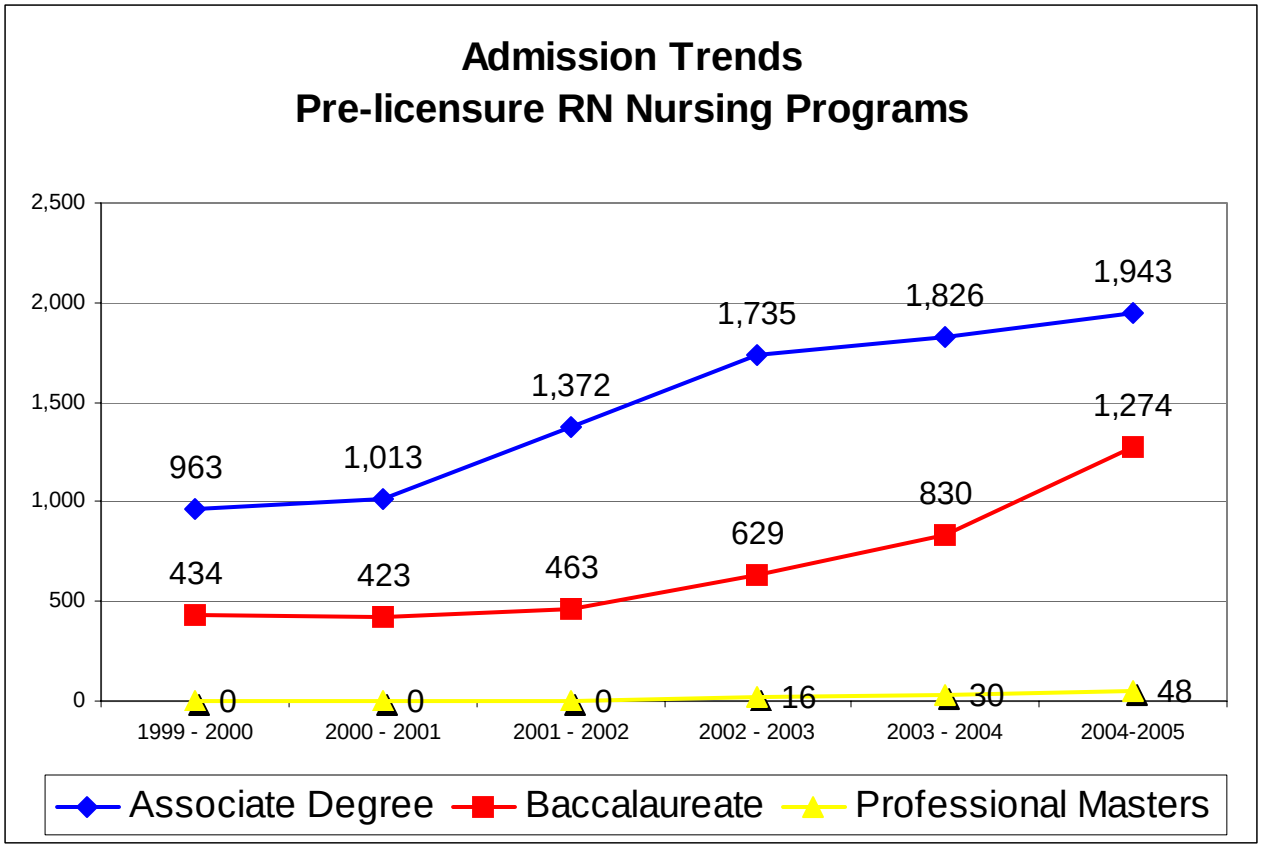
Chart 17



Between August 1, 2004 and July 31, 2005: **11 students were admitted to Iowa's Post-Masters Certificate programs**, an increase of 450% compared to last year and an increase of 10% compared to five years ago.

In 2005, no Post-Masters Certificate programs in nursing reported students on waiting lists.

Chart 18

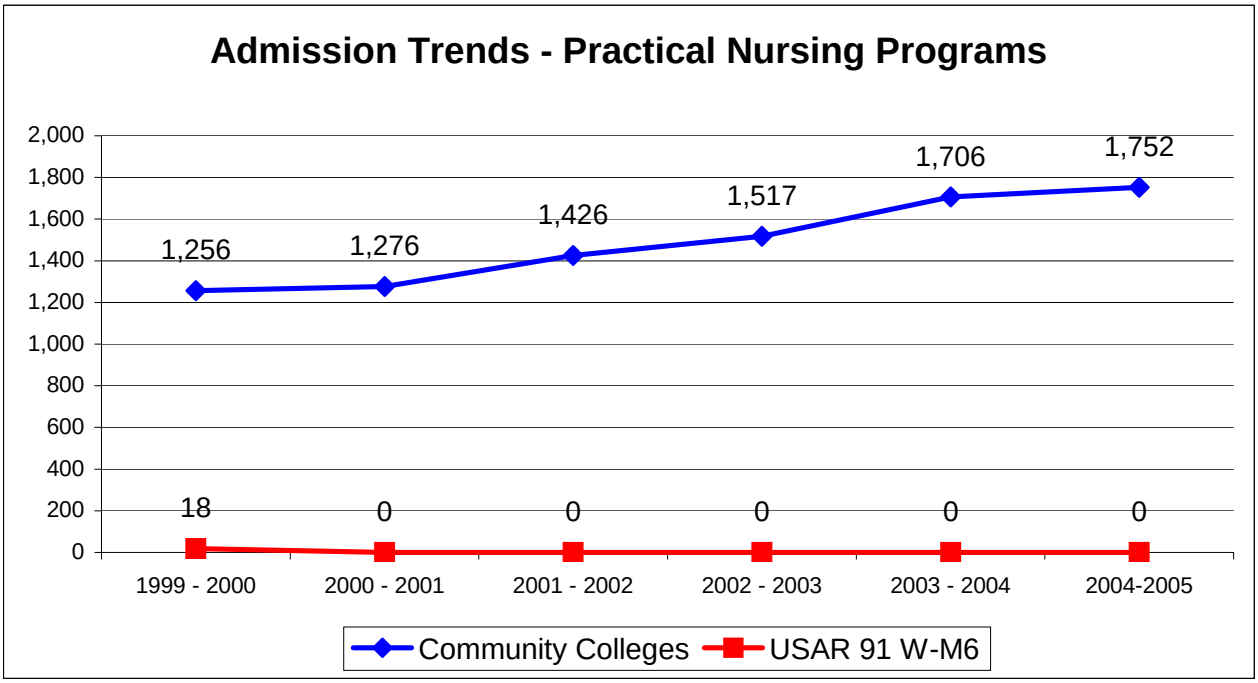


Between August 1, 2004 and July 31, 2005: **3,265 students were admitted to Iowa's pre-licensure RN programs**, an increase of 22% compared to last year and an increase of 134% compared to five years ago.

In 2005, the undergraduate RN programs, including professional Masters, Baccalaureate and Associate Degree, reported **445 students on waiting lists**.

*Note: In 2005, the undergraduate RN programs, including professional Masters, Baccalaureate and Associate degree, reported **70 faculty vacancies (19 full-time and 51 part-time)** in the areas of medical, surgical, pediatric, obstetric, mental health, geriatric, community health and critical care nursing.*

Chart 19



Between August 1, 2004 and July 31, 2005: **1,752 students were admitted to Iowa's LPN programs**, an increase of 3% compared to last year and an increase of 38% compared to five years ago.

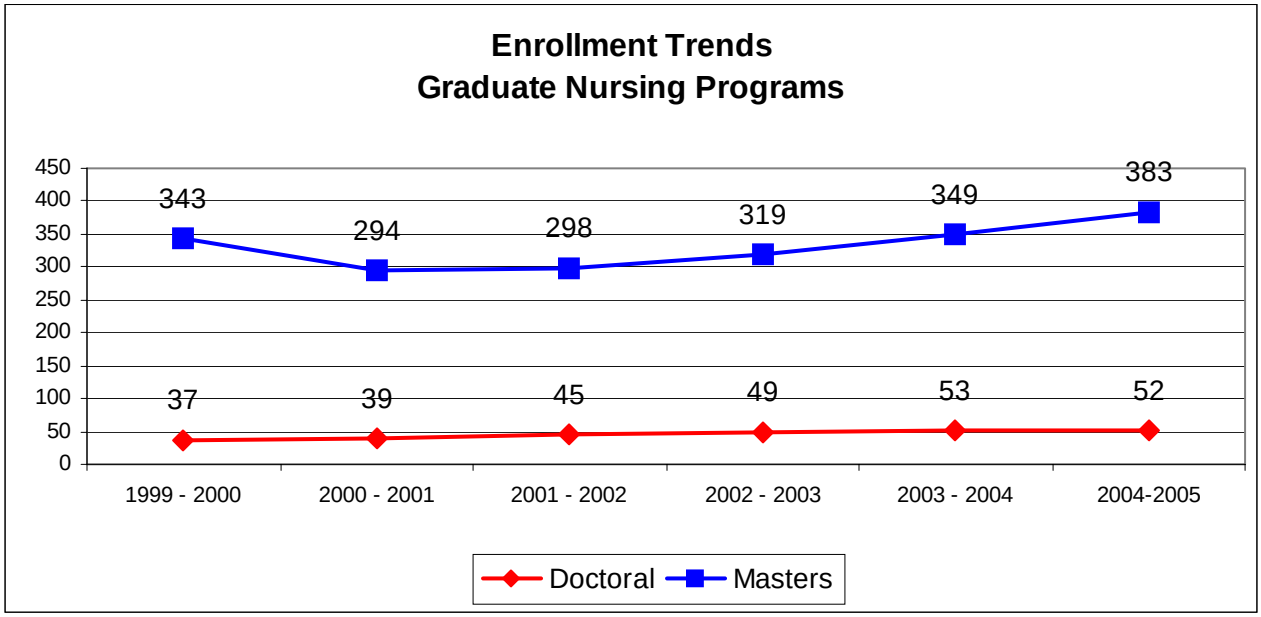
In 2005, the LPN programs reported **1,194 students on waiting lists**.

*Note: In 2005, **75%** of practical nursing graduates proceeded directly to RN programs.*

*In 2005, the LPN Programs reported **36 faculty vacancies (6 full-time and 30 part-time)***

Enrollment Data

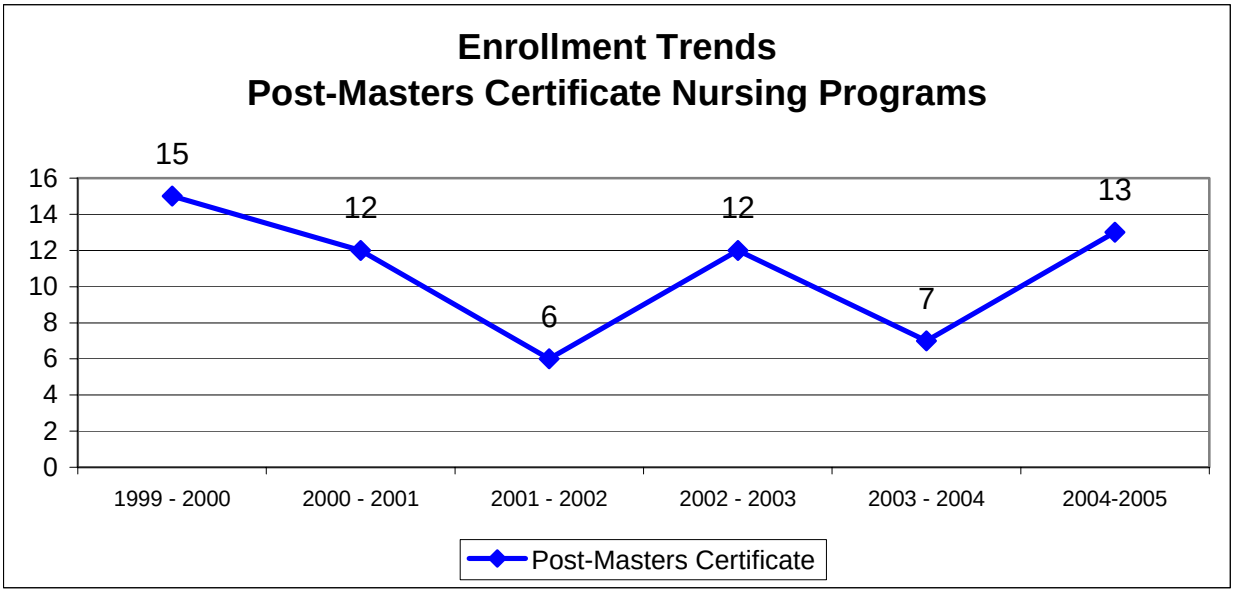
Chart 20



Between August 1, 2004 and July 31, 2005: **52 students were enrolled in Iowa's Doctoral program**, a decrease of 2% compared to last year and an increase of 41% compared to five years ago.

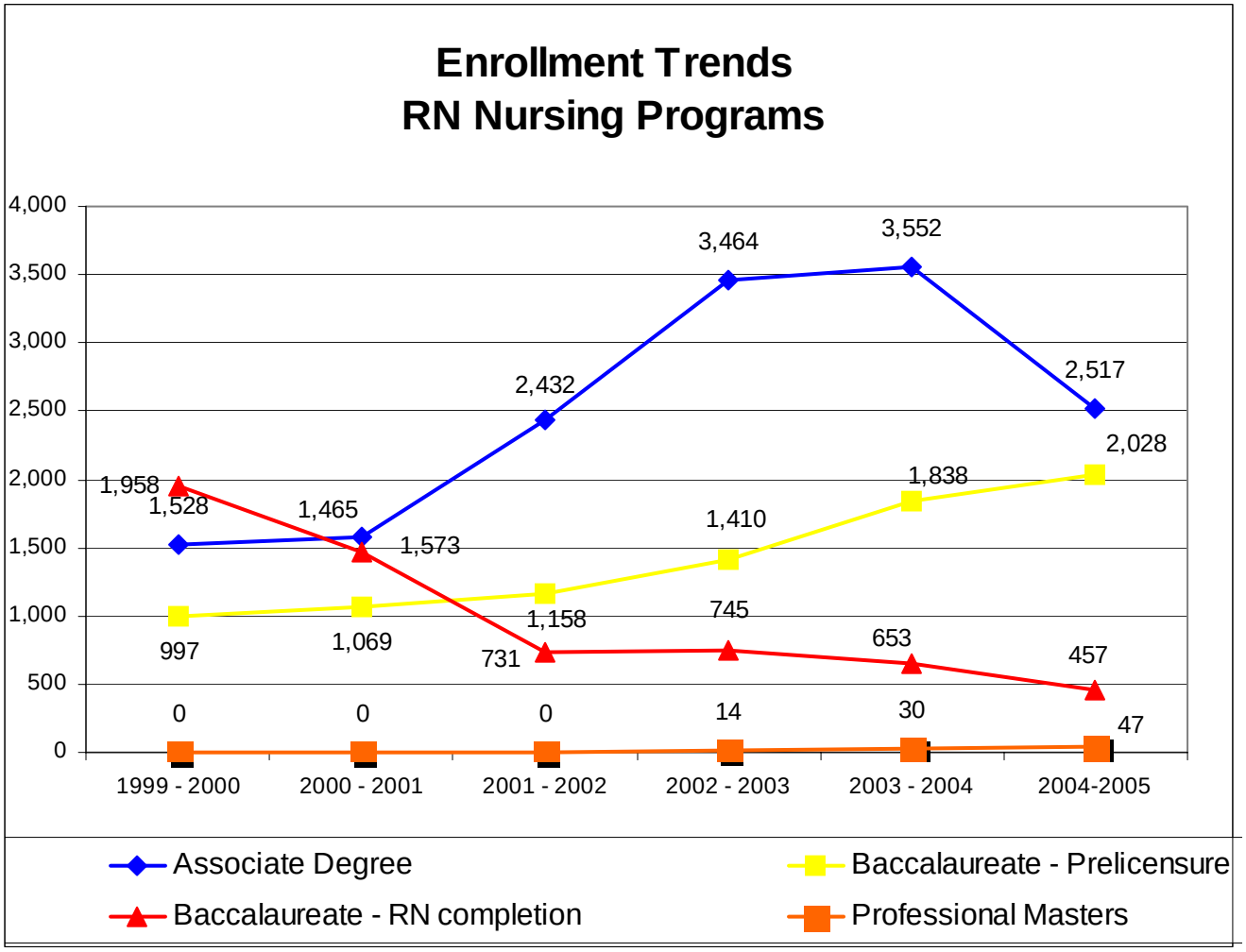
Between August 1, 2004 and July 31, 2005: **383 students were enrolled in Iowa's academic Masters programs**, an increase of 10% compared to last year and an increase of 12% compared to five years ago.

Chart 21



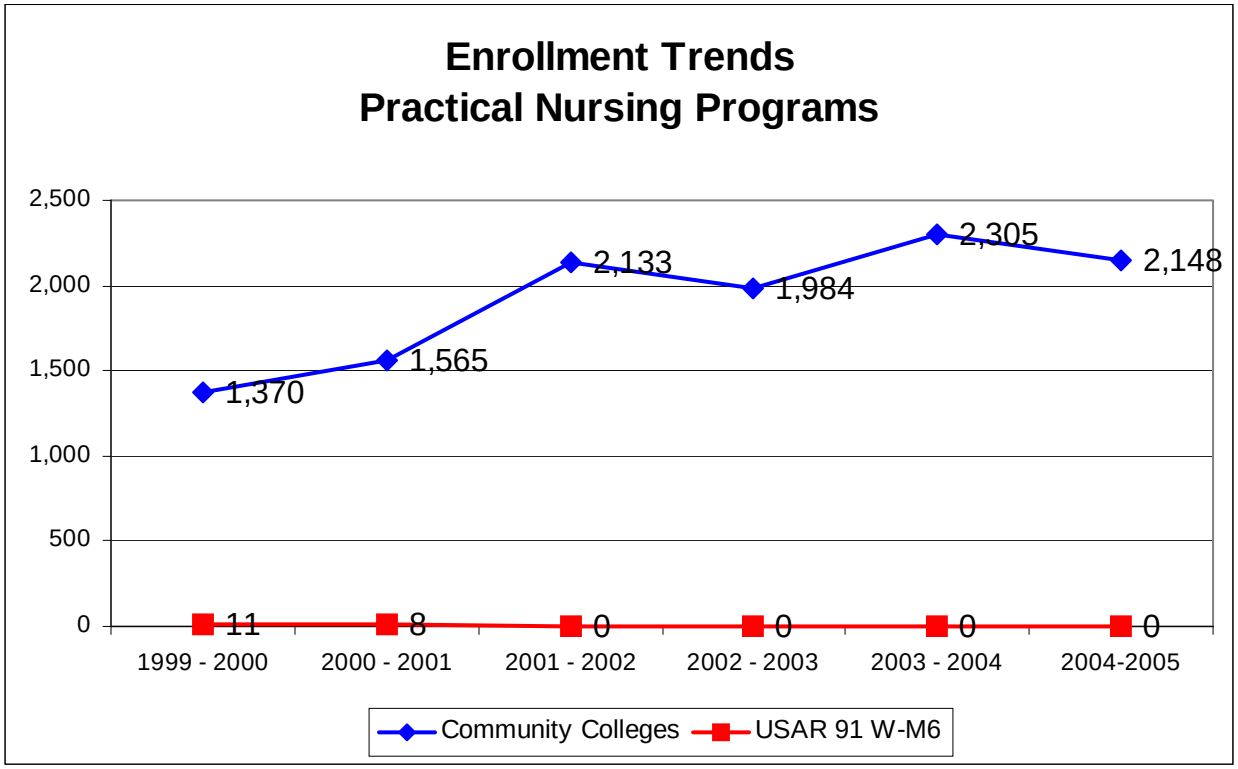
Between August 1, 2004 and July 31, 2005: **13 students were enrolled in Iowa's Post-Masters Certificate programs**, an increase of 86% compared to last year and decrease of 13% compared to five years ago.

Chart 22



Between August 1, 2004 and July 31, 2005: **5,049 students were enrolled in Iowa's RN programs**, a decrease of 17% compared to last year and an increase of 13% compared to five years ago.

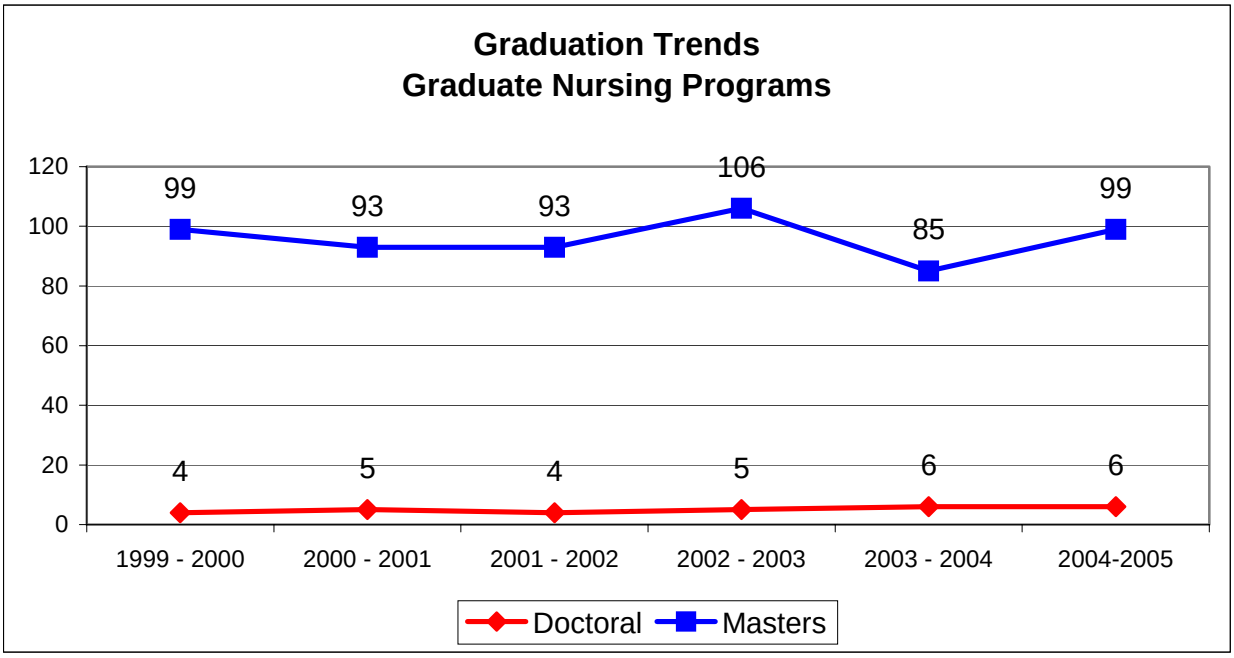
Chart 23



In 2005, **2,148 students were enrolled in Iowa's LPN programs**, a decrease of 7% compared to last year and an increase of 56% compared to five years ago.

Graduation Data

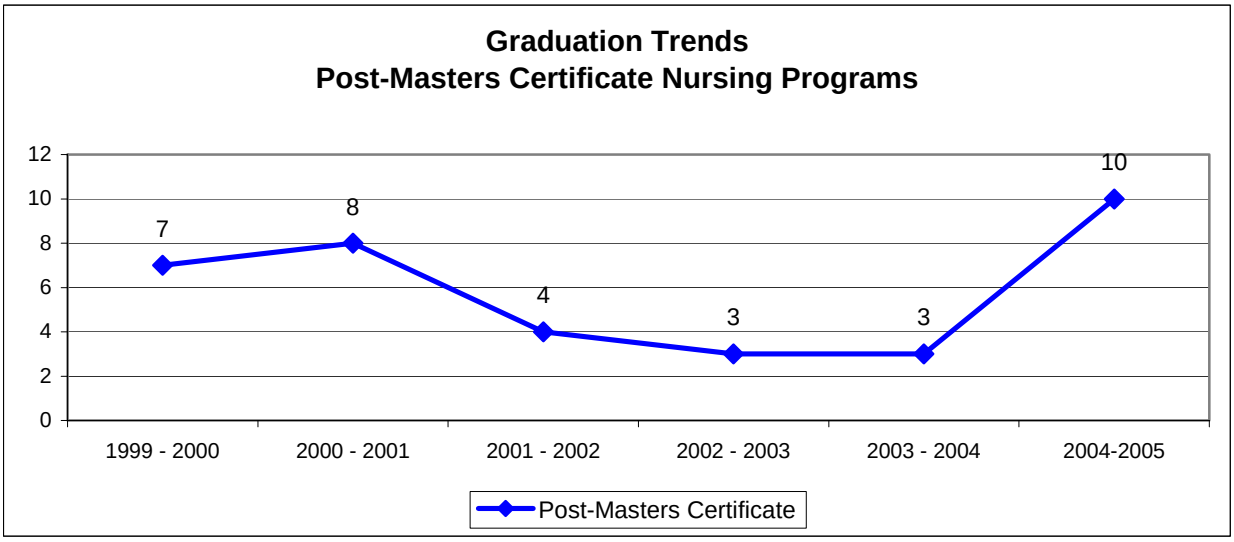
Chart 24



Between August 1, 2004 and July 31, 2005: **6 students graduated from Iowa's Doctoral program**, no change compared to last year and an increase of 50% compared to five years ago. A total of 26 students have graduated from the doctoral program in the past five years.

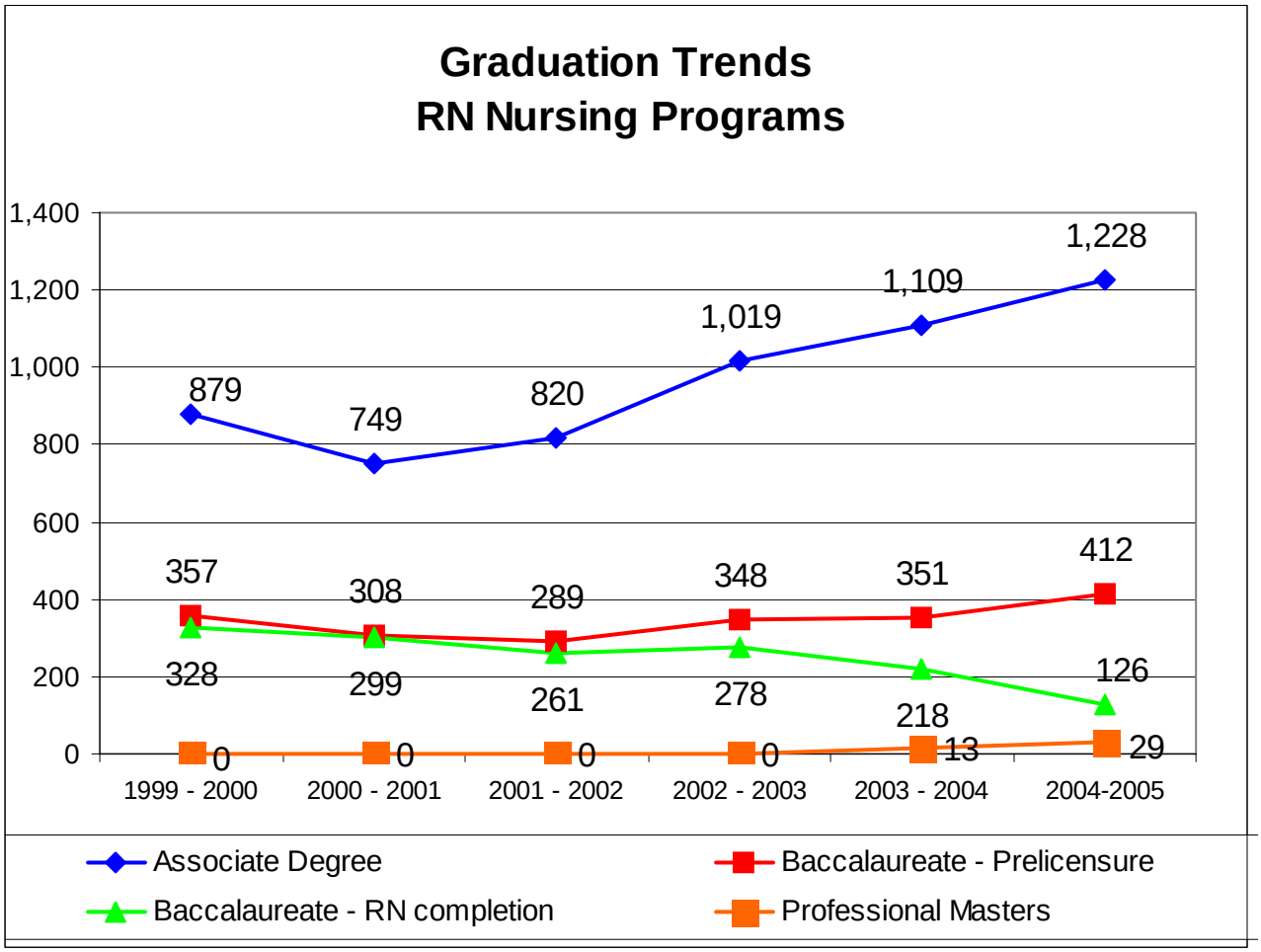
Between August 1, 2004 and July 31, 2005: **99 students graduated from Iowa's academic Masters programs**, an increase of 16% compared to last year and no change compared to five years ago.

Chart 25



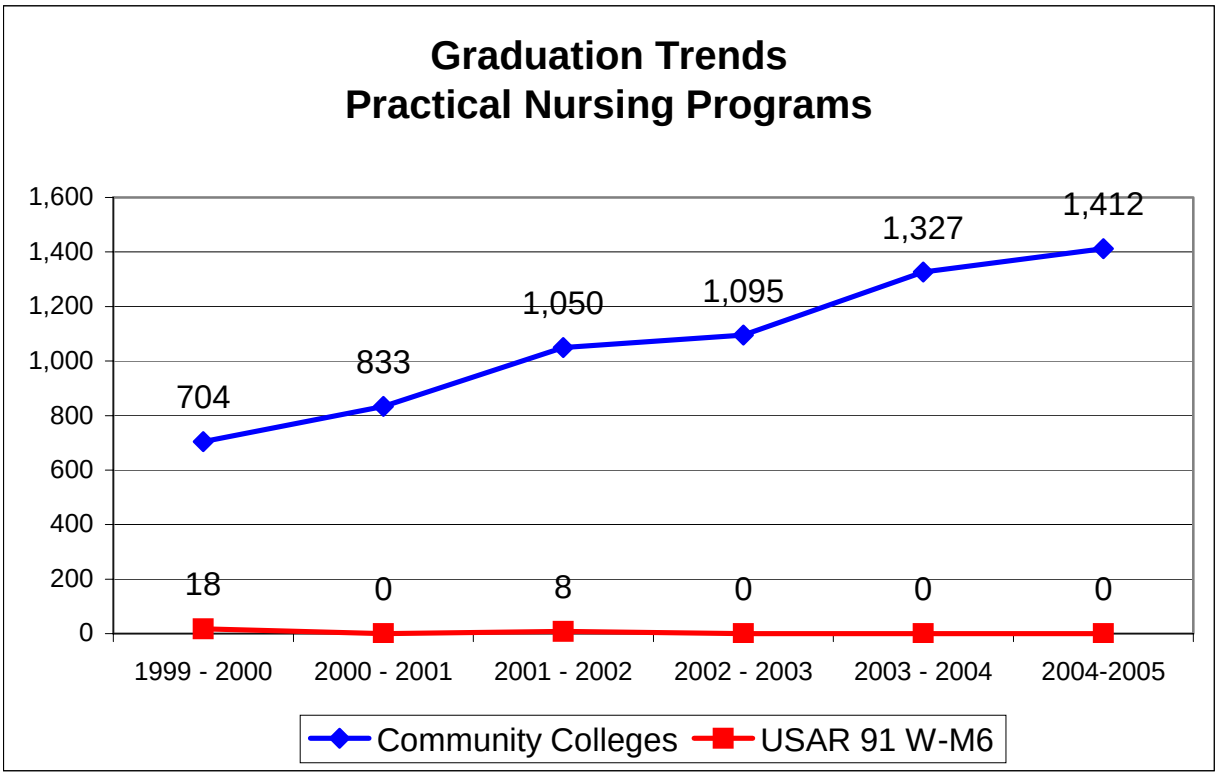
Between August 1, 2004 and July 31, 2005: **10 students graduated from Iowa's Post-Masters Certificate programs**, an increase of 230% compared to last year and an increase of 43% compared to five years ago.

Chart 26



Between August 1, 2004 and July 31, 2005: **1,795 students graduated from Iowa's RN programs**, an increase of 6% compared to last year and an increase of 15% compared to five years ago.

Chart 27



Between August 1, 2004 and July 31, 2005: **1,412 students graduated from Iowa's LPN programs**, an increase of 6% compared to last year and an increase of 96% compared to five years ago.

For more information contact the Center for Health Workforce Planning, Iowa Department of Public Health at (515) 281-8309 or egloor@idph.state.ia.us.

The Center for Health Workforce Planning was created in the Iowa Department of Public Health, Bureau of Health Care Access, to assess and forecast health workforce supply and demand, address barriers to recruitment and retention, support strategies developed at the local level that prevent shortages, and engage in activities that assure a competent, diverse health workforce in Iowa. Funding for the center, fueled through the efforts of U.S. Senator Tom Harkin, is administered through the Bureau of Health Professions, Health Resources and Services Administration, U.S. Department of Health and Human Services.

http://www.idph.state.ia.us/hpcdp/workforce_planning.asp