

NJ  
HIGHER EDUCATION IN NEW JERSEY

**The Sixth Annual Systemwide Accountability Report**

*The New Jersey Commission on Higher Education*

**July 2002**



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## I. EXECUTIVE SUMMARY

The New Jersey Commission on Higher Education, the Presidents' Council, and the boards of trustees of the colleges and universities in the state share a strong commitment to accountability. Recognizing that a periodic assessment of higher education's performance can help pinpoint priorities or inspire dialogue for necessary change and growth, an annual systemwide accountability report is prepared to present data and information on the various sectors and the system as a whole.

This year's accountability report includes valuable data to inform the new Administration and Legislature as well as the recently initiated higher education long-range planning process. It provides current information on a broad range of key higher education performance indicators, and where data are available, indicators are examined over time to give an historical context. In addition, the report highlights some specific college and university accomplishments that speak to the contributions of the higher education community.

Key findings in this year's systemwide accountability report include the following:

- ▲ The total enrollment in New Jersey's colleges and universities was 3.9 percent higher in 2000 than it was in 1990, reaching a total of 335,930 students. Preliminary figures for the fall of 2001 show an additional and significant increase of 3.1 percent in just one year. New Jersey faces an exigent policy decision as to whether and how the capacity of its higher education system should be increased to serve the expected annual growth in the number of high school graduates and nontraditional students who will seek a college education in the state.
- ▲ Not only is the sheer number of students attending New Jersey's colleges and universities growing, but an increasing percentage of them are enrolling full-time. The percentage of undergraduate students enrolled full-time rose from 53.0 percent in 1980 to 61.5 percent in 2000. Every sector has experienced an increase in the proportion of students attending full-time, and full-time attendance affects institutional and system capacity.
- ▲ Joint admissions policies, dual degree programs, and the establishment of NJ Transfer – a program that helps community college students transfer credits in the State of New Jersey – exemplify a new wave of interinstitutional commitment toward improved transition between the state's two-year and four-year colleges and universities. While progress is being made, efforts must be increased. Although the public research universities enrolled 4.8 percent more transfer students in 2000 than in 1995, the state colleges/universities enrolled 6.3 percent fewer transfer students in the same time period. The share of the transfer students originating at community colleges declined slightly in both sectors.
- ▲ New Jersey continues to lead the nation as a whole in state-funded, need-based student assistance for full-time students. Students attending four-year colleges in New Jersey received an equal or greater amount of aid than those attending comparable schools in other states. New Jersey students, with the exception of those enrolled in community colleges, are much more likely than those in other states to receive federal aid. To further assist part-time students sectorwide, the Commission on Higher Education, the Presidents' Council, and the Higher Education Student Assistance Authority continue to endorse the concept of establishing a Tuition Aid Grant (TAG) program for part-time students without limiting funds for those who attend full-time.

- ▲ Baccalaureate student graduation rates for New Jersey's four-year colleges and universities show slight improvement over the past decade. However, more timely graduation of students is essential in light of continued expectations for accountability, productivity, and cost containment; the promotion of a student-centered approach to academic degree program delivery; and the need for a highly skilled, qualified workforce. Higher education's growing student population and limited capacity only heighten the need to ensure timely completion of degree programs.
- ▲ The number of certificates and degrees awarded by New Jersey colleges and universities rose from 43,850 in 1990 to 52,579 in 2000 - a 20 percent increase. The number of degrees conferred increased within all sectors and by all levels of degrees except for first-professional degrees. Bachelor's degrees accounted for more than half of the degrees conferred, associate degrees for almost one-fourth, and graduate degrees for almost one-fifth.
- ▲ New Jersey colleges and universities have improved minimally the ethnic diversity of their faculty to more closely represent the general population and the students they enroll. African Americans and Hispanics constitute 1,046 (9.4%) of the full-time faculty with available information about their ethnicity. This percentage rose from 8.5 percent five years ago. In contrast, 27.1 percent of the students with known ethnicity were African American or Hispanic in 2000 – up from 23.2 percent five years earlier.

Widespread efforts to address educational needs from preschool to graduate school and beyond are underway in the state. Through individual institutional reports and the Commission's systemwide accountability report, the public and state policy makers stay informed about the condition and progress of New Jersey's higher education system as a whole and how it compares to higher education nationally.

By maintaining a systemwide commitment to accountability, New Jersey is better able to plan for increased access to affordable higher education opportunities, improved educational programs, enhanced facilities and technology infrastructure, increased academic research capacity, and a well-prepared workforce and citizenry.

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**Higher education in New Jersey is central to the future of the state, expanding opportunities for all its citizens, supporting economic growth, building community and civic commitment, and addressing critical societal needs.**

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## II. INTRODUCTION

### A. The Role of Higher Education in New Jersey

Higher education, both nationally and in New Jersey, prepares students for fulfilling lives, rewarding careers, and lifelong learning. In addition to meeting student needs, higher education conducts basic and applied research to preserve and advance knowledge and fuel the economy. Through public service, colleges and universities contribute to community and individual health and well-being and to the strength and growth of surrounding economies.

New Jersey is a diverse, complex, and rapidly changing state. It benefits from a strategic location and an abundance of high-tech firms and corporate research and development. The trend away from a manufacturing economy to one that is information-driven has been especially pronounced. The result is an increased demand for higher education – a demand that New Jersey colleges and universities can meet.

Higher education in New Jersey is central to the future of the state, expanding opportunities for all its citizens, supporting economic growth, building community and civic commitment, and addressing critical societal needs.

### B. Overview of Accountability Reporting

This report is the sixth annual systemwide accountability report prepared by the New Jersey Commission on Higher Education. Its purpose is to illustrate the current status of higher education systemwide using available data about faculty, students, affordability and access, and the economic and societal benefits derived from higher education.

The state's colleges and universities are accountable to students, schools, businesses, communities, and local and state leaders. In the increasingly market-driven environment of higher education, accountability is a mechanism for providing important consumer information.

Since 1996, New Jersey public colleges and universities have been required by law to prepare and submit an annual accountability report. These reports serve as an update on the condition of the institutions and include academic

offerings; accreditation status; major capital projects; and a profile of the student body, faculty, and trustees. The state also established a modest performance incentive funding program as an accountability tool. It enables public institutions to receive up to one additional percent of support for basic operations based on outcomes on four indicators: graduation rates, articulation and transfer rates, efficiency, and diversified revenues.

All of New Jersey's community colleges, state colleges and universities, public research universities, and independent institutions are regionally accredited by the Middle States Commission on Higher Education. Gaining and maintaining accreditation in this region requires evidence that an institution meets standards described in the document, "Characteristics of Excellence in Higher Education." Recently revised, the standards require the conduct of institutional assessment, including assessment of student learning outcomes and institutional effectiveness, and the use of the findings as a key condition for accreditation. All institutions in New Jersey not accredited by the Middle States Commission hold accreditation by an appropriate institutional accrediting body (e.g., Association of Advanced Rabbinical and Talmudic Schools, Association of Theological Schools in the United States and Canada). These institutional accrediting bodies have standards similar to Middle States.

Many of New Jersey's institutions also offer academic programs that are accredited by specialized accrediting bodies such as the National League for Nursing, the Accrediting Board for Engineering Technology, the National Council for Accreditation of Teacher Education, and the Commission on Accreditation of Allied Health Education Programs. The specialized accrediting bodies also require evidence of program quality and outcomes. Most institutions require periodic program reviews for academic programs not subject to specialized accreditation.

Although the state and accrediting bodies have made accountability an important focus for higher education, individual institutions and their governing boards also recognize the value of evaluating performance. By assessing their effectiveness in achieving their stated goals, institutions gain valuable information to support planning, resource allocation, and renewal. By being open about these results, they demonstrate accountability and responsiveness to the publics they serve.

This sixth systemwide accountability report is not a compendium of the institutional accountability reports nor is it a report on institutional-specific outcomes. Instead, it is intended to provide a broad overview of the state's system of higher education, the sectors within the system, and data on key performance indicators.

### III. NEW JERSEY HIGHER EDUCATION SYSTEM

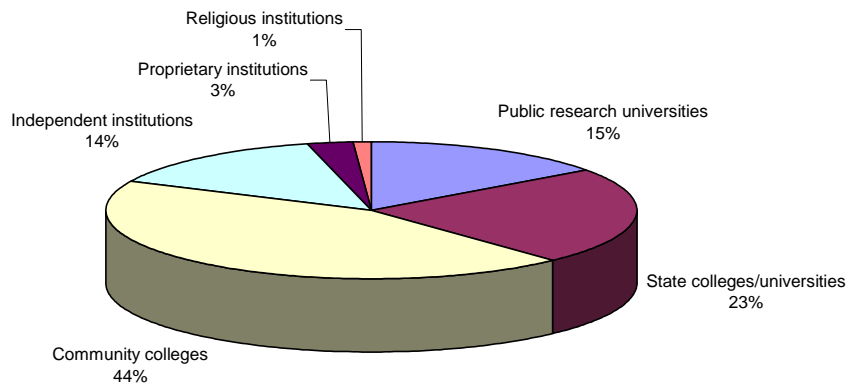
#### A. General Description

Higher education in New Jersey is a sizable enterprise, whether measured by numbers of institutions, students, or operational expenditures. In fall 2000, New Jersey higher education enrolled approximately 336,000 students in credit-bearing courses at 57 degree-granting institutions. In FY 2002, the Governor and Legislature appropriated more than \$1.9 billion for higher education.

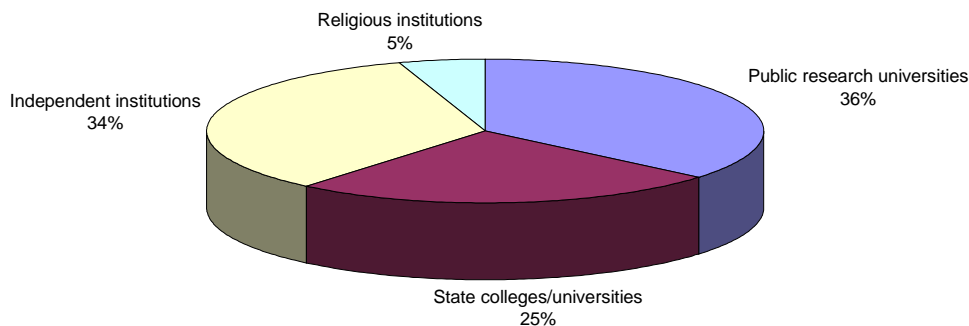
The New Jersey system of higher education is guided by a tripartite governance structure. The governing boards of New Jersey's higher education institutions are accountable to the public for the fulfillment of each institution's mission, the furtherance of statewide goals, and the effective management of the institutions. The New Jersey Commission on Higher Education has statewide responsibility for planning, coordination, and advocacy of higher education to the public, the Legislature, and the Governor. The New Jersey Presidents' Council is responsible for program review and nurturing collegiality and cooperation among its members to achieve statewide goals, while providing information on higher education and advising the Commission, Governor, and Legislature.

The graphs below categorize the 57 colleges and universities into six types of institutions: community colleges, state colleges and universities, public research universities, independent institutions, religious institutions, and proprietary institutions. The graphs below provide the percentage of students in credit-bearing courses within each type of higher education institution in New Jersey in fall 2001.

**Distribution of Undergraduate Students in New Jersey Colleges/Universities, Fall 2001**



**Distribution of Postbaccalaureate Students in New Jersey Colleges/Universities, Fall 2001**



## New Jersey's 57 Colleges and Universities

### **PUBLIC RESEARCH UNIVERSITIES**

NEW JERSEY INSTITUTE OF TECHNOLOGY  
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY  
UNIVERSITY OF MEDICINE AND DENTISTRY  
OF NEW JERSEY

### **STATE COLLEGES & UNIVERSITIES**

COLLEGE OF NEW JERSEY  
KEAN UNIVERSITY  
MONTCLAIR STATE UNIVERSITY  
NEW JERSEY CITY UNIVERSITY  
RICHARD STOCKTON COLLEGE OF NEW JERSEY  
RAMAPO COLLEGE OF NEW JERSEY  
ROWAN UNIVERSITY  
THOMAS EDISON STATE COLLEGE  
WILLIAM PATERSON UNIVERSITY OF NEW JERSEY

### **COMMUNITY COLLEGES**

ATLANTIC CAPE COMMUNITY COLLEGE  
BERGEN COMMUNITY COLLEGE  
BROOKDALE COMMUNITY COLLEGE  
BURLINGTON COUNTY COLLEGE  
CAMDEN COUNTY COLLEGE  
COUNTY COLLEGE OF MORRIS  
CUMBERLAND COUNTY COLLEGE  
ESSEX COUNTY COLLEGE  
GLOUCESTER COUNTY COLLEGE  
HUDSON COUNTY COMMUNITY COLLEGE  
MERCER COUNTY COMMUNITY COLLEGE  
MIDDLESEX COUNTY COLLEGE  
OCEAN COUNTY COLLEGE  
PASSAIC COUNTY COMMUNITY COLLEGE  
RARITAN VALLEY COMMUNITY COLLEGE  
SALEM COMMUNITY COLLEGE  
SUSSEX COUNTY COMMUNITY COLLEGE  
UNION COUNTY COLLEGE  
WARREN COUNTY COMMUNITY COLLEGE

### **INDEPENDENT COLLEGES AND UNIVERSITIES**

BLOOMFIELD COLLEGE  
CALDWELL COLLEGE  
CENTENARY COLLEGE  
COLLEGE OF SAINT ELIZABETH  
DREW UNIVERSITY  
FAIRLEIGH DICKINSON UNIVERSITY  
FELICIAN COLLEGE  
GEORGIAN COURT COLLEGE  
MONMOUTH UNIVERSITY  
PRINCETON UNIVERSITY  
RIDER UNIVERSITY  
SAINT PETER'S COLLEGE  
SETON HALL UNIVERSITY  
STEVENS INSTITUTE OF TECHNOLOGY

### **PROPRIETARY INSTITUTIONS**

BERKELEY COLLEGE  
DEVRY COLLEGE OF TECHNOLOGY  
GIBBS COLLEGE

### **RELIGIOUS INSTITUTIONS**

ASSUMPTION COLLEGE FOR SISTERS  
BETH MEDRASH GOVOHA  
NEW BRUNSWICK THEOLOGICAL SEMINARY  
PHILADELPHIA BIBLICAL UNIVERSITY  
PRINCETON THEOLOGICAL SEMINARY  
RABBI JACOB JOSEPH SCHOOL  
RABBINICAL COLLEGE OF AMERICA  
SOMERSET CHRISTIAN COLLEGE  
TALMUDICAL ACADEMY

## B. Four New Jersey Higher Education Sectors

**Community Colleges:** A community college is a two-year, public postsecondary education institution established by one or more New Jersey counties. To be admitted to a community college, an individual must either have a high school diploma or a G.E.D., or be 18 years old. The community colleges serve over one-third of the full- and part-time students enrolled in New Jersey colleges and universities. They collaborate with four-year institutions to provide a seamless undergraduate education for baccalaureate degree-seeking students and reduce overall tuition outlays. These colleges, which are conveniently located to serve students in every county, provide a route to higher education for underrepresented and disadvantaged students, as well as many adult students who return to college to upgrade their professional skills.

New Jersey's community colleges provide a broad spectrum of associate degrees and certificates, as well as customized training programs for business and industry and a wide variety of non-credit continuing education offerings. Upon completing an approved sequence of courses, graduates may earn an Associate in Arts degree or an Associate in Science degree, appropriate for transfer into a baccalaureate program. Other students earn an Associate in Applied Science degrees or certificates designed to lead directly to employment.

**State Colleges and Universities:** The nine state colleges and universities have diverse missions but share the common goal of making high-quality higher education accessible and affordable. Collectively, these institutions educate a major portion of New Jersey's citizens at the baccalaureate level. They serve a total of approximately 80,000 students, of whom over 90 percent are state residents. These institutions also make an important contribution to the preparation of future leaders through graduate and professional education and to research, scholarship, and community service. Each of these institutions has a distinctive mission, encompassing a variety of emphases, such as science and technology; education and teacher preparation; service to urban populations; adult and continuing education; and undergraduate and graduate programs in the liberal arts, fine arts, and business disciplines. The nine state colleges and universities are committed to making higher education available to students through cooperative relationships with state research universities, two-year colleges, P-12 schools, the military, the corporate sector, and local communities.

The state colleges and universities primarily emphasize undergraduate education that culminates in a baccalaureate degree; all of these institutions offer programs of graduate study leading to a master's degree; and two offer one doctoral level program each that is geared toward practitioners. Even though these institutions are not fundamentally research-based, the faculty engage in scholarship that enhances their teaching and public service. One state college, a nonresidential institution that provides working adults with diverse and alternative methods of achieving a collegiate education, awards associate degrees in addition to baccalaureate and master's degrees.

**Public Research Universities:** The state's three public research universities include New Jersey's largest, most comprehensive and only land grant university, its health sciences university, and its technological university. These doctoral-level institutions are responsible for preparing many of the state's future leaders in business, engineering, law, medicine, architecture, education, and other fields critical to New Jersey's growth and prosperity. In addition to providing undergraduate and graduate programs of high quality to over 60,000 students annually, the vast majority of whom are New Jersey residents, the public research universities are integral to the state's ongoing leadership in high technology research and development. Together, these three universities account for over 97 percent of all research expenditures among New Jersey's public colleges and universities, and for approximately two-thirds of all such spending at higher education institutions, public and independent, in the state. In addition to undergraduate education and work culminating in the master's degree, advanced graduate study leading to a doctoral or first-professional degree is a major responsibility of a research university.

**Independent Institutions:** New Jersey emphasizes the development and preservation of a well-planned and diverse system of higher education that encompasses both public and independent institutions. Independent colleges and universities contribute importantly to the state's diverse system of higher education and provide degrees on all levels. Like their public college and university counterparts, they require faculty and infrastructure of high caliber to prepare future leaders and a labor force to meet the challenges of the new economy.

To help maintain a strong sector of independent institutions that offers both access and choice, New Jersey's Independent College and University Assistance Act of 1979 (ICUAA) provides state funding to the 14 independent institutions. This support recognizes the major contribution of the independent colleges and universities to the state's citizens and economy. These institutions enrolled more than 57,000 students in 2000, and over 75 percent of their undergraduates were from New Jersey. Approximately 14 percent of New Jersey's undergraduate students and 34 percent of its graduate and first-professional students attend independent institutions. As a group, these institutions exemplify a full range of missions, from small liberal arts colleges to an internationally recognized research university.

**Religious Institutions:** New Jersey is also home to nine specialized religious colleges enrolling a total of approximately 4,500 students in degree programs ranging from the associate to doctoral levels.

**Proprietary Institutions:** Three proprietary institutions are licensed in New Jersey to grant associate degrees. They enroll nearly 7,000 students in programs with a technical or business focus. Two of the three proprietary institutions also offer a limited number of baccalaureate degrees.

## IV. FACULTY

### A. Demographics and Statistics

The number of full-time faculty members in New Jersey higher education institutions rose by about 5 percent between 1995 and 2000 to reach a current total of 11,619. Growth in the number of full-time faculty members was visible in every type of institution with the exception of the community colleges where the levels stayed the same (Table 1).

As the faculty numbers have expanded, their diversity by gender and ethnicity has also increased (Tables 1 and 2). Females represent 38 percent of the full-time faculty statewide; between 1995 and 2000, the number of female full-time faculty increased by 448 (11%). In contrast, the number of male full-time faculty rose by only 122 (2%). All types of institutions with the exception of the proprietary and religious institutions experienced an increase in the share of female faculty. The community colleges had the greatest proportion of female faculty in 2000, with women accounting for 49 percent.

<u>Institutional Type</u>	<u>Fall</u>	<u>Men</u>		<u>Women</u>		<u>Total</u>
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	
Public research universities	1995	2,858	69.0	1,282	31.0	4,140
	2000	2,953	67.9	1,394	32.1	4,347
State colleges/universities	1995	1,394	61.4	875	38.6	2,269
	2000	1,406	58.7	988	41.3	2,394
Community colleges	1995	1,114	53.6	964	46.4	2,078
	2000	1,055	50.8	1,020	49.2	2,075
Independent institutions	1995	1,623	67.3	788	32.7	2,411
	2000	1,654	63.5	950	36.5	2,604
Proprietary institutions	1995	53	51.0	51	49.0	104
	2000	83	60.6	54	39.4	137
Religious institutions	1995	34	72.3	13	27.7	47
	2000	47	75.8	15	24.2	62
<b>TOTAL</b>	1995	7,076	64.0	3,973	36.0	11,049
	2000	7,198	62.0	4,421	38.0	11,619

Source: IPEDS Fall Staff Survey (1995); IPEDS Faculty Profile Survey (2000).

New Jersey colleges and universities overall have shown minimal improvement in the diversity of the ethnicity of their faculty to better represent the general population and the students they enroll. African Americans and Hispanics comprise only 1,046 (9.4%) of the full-time faculty with known ethnic information in the state. Five years ago, these two groups accounted for 8.2 percent of the full-time faculty (Table 2).

Two types of institutions had higher ratios of African-American and Hispanic representation among their faculty compared with the state total: the state colleges and universities at 14.6 percent and the community colleges at 11.5 percent. The lower ratios appeared in the public research universities (7.6%), religious institutions (6.4%), independent institutions (5.6%), and proprietary institutions (4.8%).

The state colleges and universities and community colleges also had higher rates of increase in the ethnic diversity of their faculty over the past five years in comparison with other sectors. The representation of Hispanics among the full-time faculty at the state colleges and universities rose from 4.6 percent in 1995 to 5.6 percent in 2000; of African-Americans, from 8.3 percent to 9.0 percent; and of Asian-Americans, from 6.1 percent to 7.8 percent. At the community colleges, the representation of Hispanics among the full-time faculty rose from 2.8 percent in 1995 to 3.3 percent in 2000; of African-Americans, from 7.6 percent to 8.2 percent; and of Asian-Americans, from 2.8 percent to 3.5 percent.

Nevertheless, undergraduate student diversity by ethnicity remains far greater than that of the state's full-time faculty. Over the past five years, the percentage of African American and Hispanic students rose from 23.2 percent of undergraduates with known ethnicity to 27.1 percent. The comparable minority proportion of full-time faculty with known ethnicity rose from 8.5 percent in 1995 to only 9.4 percent in 2000. It should be noted that the percentage of both students and faculty for whom ethnicity information is available has declined over the past five years.

All of the institutional types with more than 20 percent minority undergraduate student enrollments show a large gap between minority representation in the full-time faculty and student enrollments. At proprietary institutions in 2000, 11.6 percent of the faculty members with known ethnic information were African American or Hispanic compared with 48.6 percent of the student population. The distribution among the other types of institutions was community colleges – 11.4 percent of faculty; 30.4 percent of undergraduate students; state colleges and universities – 14.5 percent of faculty; 24.8 percent of students; public-research universities – 7.6 percent of faculty; 22.7 percent of students; and independent institutions – 5.5 percent of faculty; 22.9 percent of students.

**Table 2: Ethnicity of Full-Time Faculty**

Institutional Type	Public Research Universities		State Colleges/Universities		Community Colleges		Independent Institutions		Proprietary Institutions		Religious Institutions		Total		Change 1995-2000
	1995	2000	1995	2000	1995	2000	1995	2000	1995	2000	1995	2000	1995	2000	%
White	3,284	3,255	1,815	1,847	1,792	1,746	2,064	2,168	89	108	42	52	9,086	9,176	1.0
Black	194	206	187	214	158	168	66	89	2	13	3	6	610	696	14.1
Hispanic	91	96	103	134	58	68	50	49	3	3	0	0	305	350	14.8
Asian American	328	415	137	186	67	72	163	187	10	13	2	3	707	876	23.9
American Indian	5	10	6	6	3	5	2	3	0	0	0	0	16	24	50.0
Subtotal	3,902	3,982	2,248	2,387	2,078	2,059	2,345	2,496	104	137	47	61	10,724	11,122	3.7
Nonresident Alien	238	346	18	2	0	0	62	94	0	0	0	1	318	443	39.3
Unknown	0	19	3	5	0	16	4	14	0	0	0	0	7	54	671.4
Grand Total	4,140	4,347	2,269	2,394	2,078	2,075	2,411	2,604	104	137	47	62	11,049	11,619	5.2

Source: IPEDS Fall Staff Survey, 1995 and 2000.

About one-half of the faculty members at colleges and universities in New Jersey are part-time (Table 3). At the community colleges, 70 percent of the headcount faculty are part-time; at the public research universities it is somewhat less than 30 percent, while the state colleges and universities are slightly above one-half. These data include faculty with varying levels of responsibilities for instruction, research, and public service.

**Table 3: Percentage of Full-Time/Part-Time Faculty Employed by New Jersey Colleges and Universities**

	FALL 1998		FALL 1999		FALL 2000		FALL 2001	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
	%	%	%	%	%	%	%	%
Public research universities	73	27	72	28	71	29	73	27
State colleges/universities	49	51	47	53	46	54	47	53
Community colleges	31	69	31	69	29	71	30	70
Independent institutions	49	51	50	50	49	51	51	49
Proprietary institutions	38	62	32	68	36	64	40	60
Religious institutions	66	34	76	24	68	32	79	21
New Jersey Grand Total	50	50	49	51	48	52	49	51

Source: IPEDS Fall Staff Survey (odd years), IPEDS Number of Employees Survey (even years).

Examining headcount data on faculty may be misleading if not supplemented with a measure of the relative volume of teaching activity performed by part-time faculty. In April 2000, the Commission on Higher Education conducted a survey of New Jersey colleges and universities that revealed that just over one-third of all course sections at the public colleges and universities were taught by part-time faculty. There were broad variations among institutions, and sector averages ranged from 27 percent of course sections taught by part-time faculty at the state colleges and universities to 44 percent at the community colleges. At the public research universities, 31 percent of course sections are taught by part-timers. Graduate teaching assistants are found almost exclusively at the public research universities, where they teach just under 10 percent of the course sections taught by part-timers.

## B. Teaching

Teaching is the primary activity of faculty members. In the last two decades, faculty roles and rewards have been reexamined and the concept of scholarship reconceptualized to include teaching as well as research. Increased focus is being placed on assessment of student learning. Teaching evaluations have become more systematic and now often include student evaluations, teaching portfolios, and peer reviews.

Many New Jersey institutions have emphasized the importance of effective teaching through the creation of centers for teaching and learning. These centers provide workshops on teaching-related topics for faculty. Some have established mentoring programs for new faculty to assist them in the fulfillment of their instructional role.

Educational technology significantly affects teaching and learning. Colleges and universities offer online learning degrees, courses, and activities. Currently, they offer more than 1,300 courses and more than 40 complete degree and certificate programs via distance learning. These courses have been found to be both effective and convenient for students. One New Jersey institution, Fairleigh Dickinson University, has implemented a requirement that all of its students take at least one course online each year.

New Jersey's community colleges have developed a collaborative system for the delivery of distance learning courses: the New Jersey Virtual Community College Consortium (NJVCC). The NJVCC is built on a "host-provider" model that enables students to enroll at their home community college in online courses provided by any of the other community colleges throughout the state. Students gain access to a wide variety of online courses provided by other colleges while at the same time receiving full support services from their home colleges. To date, about 2,500 students have enrolled in courses through the NJVCC.

Within the traditional classroom, faculty members are expanding their use of technology to engage more directly students in learning. As a new generation of students enrolls in colleges and universities, many bring extensive experience and comfort with technology. As a result of state financing, many New Jersey's colleges and universities are now equipped with one or more "smart" classrooms that integrate various kinds and sources of approaches and materials in the teaching-learning process. Most contain a basic equipment package including a VCR, combined laser disc and audio CD player, slide projector or document camera, and Internet connections for a laptop PC or Macintosh computer. Demand for these classrooms is high.

Even in traditional classrooms, faculty have added course web pages and become more accessible to their students through electronic mail, and some conduct a portion of their courses online. Others have created electronic forums for out-of-class discussions. Faculty are also able to use a wide array of software now available – allowing students to review material easily, conduct science experiments virtually, participate in simulations of real-life experiences, and access large amounts of information on specific topics more quickly.

### Campus Highlight

#### ***Applying Technology: Richard Blonna***

"Technology is a tool that provides access to new information and supplements teaching," says Richard Blonna, a professor of community health at William Paterson University who uses Internet technology to teach two community health courses. He uses state-of-the-art information that can be found online to infuse his university classes and his students with a pedagogy that breaks down the traditional barriers of space and time. Student and teacher are able to learn whenever it is convenient.

"I like the access of online teaching," he says. "The students are getting me at my peak. I like having the time to think about a question they've posed, go to my notes, and furnish the best answer possible."

Furthermore, he finds that the students' work is of a high quality. The responses they give to questions he's asked reflect a seriousness not often displayed in the classroom.

### Campus Highlight

#### ***Teaching Excellence: New Jersey Professor Awarded Pulitzer Prize for Poetry***

In spring 2001, the Pulitzer Prize selection committee confirmed to the literary world what The Richard Stockton College of New Jersey community has known for more than 25 years: Stephen Dunn, Distinguished Professor of Creative Writing, is a gifted poet and storyteller.

Dunn, a faculty member in creative writing at Stockton since 1974, received the 2001 Pulitzer Prize for his collection of poems, *Different Hours*. In total, he has published 11 collections of poetry.

"Stephen Dunn's gift for poetry may only be exceeded by his talent in the classroom," said Dr. Vera King Farris, Stockton President, in a published release. "He is an exceptional teacher and his presence on this campus is an inspiration to many of the students with whom he comes in contact."

### C. Certificates and Degrees Conferred

New Jersey's faculty deliver more than 3,300 degree and certificate programs in 40 broad areas of study. In FY 2000, New Jersey institutions awarded over 52,000 degrees. Bachelor's degrees constituted more than half of the degrees conferred; about one-fourth were associate degrees or certificates, and nearly one-fifth were graduate degrees (Table 4).

Degrees granted are a product of the higher education system. The number of degrees awarded can be a useful performance indicator of a system's productivity. The number of degrees awarded by New Jersey colleges and universities rose from 43,850 in 1990 to 52,579 in 2000 – a 20 percent increase. Such an increase was visible in all types of institutions over the past 10 years. The sector with the largest increase was the proprietary institutions with an overall gain of 164 percent to reach the 1,884 degrees they awarded in 2000. State colleges and universities awarded 38 percent more degrees in 2000 than they did in 1990; public research universities and the independent institutions each show a 10 percent increase.

With the exception of first-professional degrees, which decreased in number by 16 percent between 1990 and 2000, all degree levels (associate, bachelor's, master's, doctoral) showed a gain of at least 17 percent in that same period. The greatest percentage increase occurred at the master's level. In 2000, New Jersey institutions conferred a total of 9,477 master's degrees and post-master's certificates – an increase of 32 percent from 1990.

**Table 4: Certificates and Degrees Conferred**

<u>Institutional Type</u>	<u>FY</u>	<u>SubBacc Certificate</u>	<u>Associate</u>	<u>Bachelor+ PB Certificate</u>	<u>Master + PM Certificate</u>	<u>Doctoral</u>	<u>First-Prof</u>	<u>Total</u>
Community colleges	1990	573	9,000	0	0	0	0	9,573
	1995	579	11,710	0	0	0	0	12,289
	2000	722	10,193	0	0	0	0	10,915
Public research universities	1990	164	0	7,758	2,837	419	871	12,049
	1995	237	72	7,520	2,794	584	919	12,126
	2000	64	75	8,205	3,382	548	965	13,239
State colleges/ universities	1990	0	185	8,526	1,476	0	0	10,187
	1995	2	235	10,645	2,065	0	0	12,947
	2000	1	130	11,653	2,299	0	0	14,083
Independent institutions	1990	60	418	6,485	2,792	415	532	10,702
	1995	41	259	6,247	3,329	439	432	10,747
	2000	23	190	7,090	3,597	416	416	11,732
Proprietary institutions	1990	386	329	0	0	0	0	715
	1995	450	575	0	0	0	0	1,025
	2000	372	1,504	8	0	0	0	1,884
Religious institutions	1990	0	3	66	79	21	455	624
	1995	0	9	195	108	30	401	743
	2000	1	11	294	199	37	184	726
TOTAL	1990	1,183	9,935	22,835	7,184	855	1,858	43,850
	1995	1,309	12,860	24,607	8,296	1,053	1,752	49,877
	2000	1,183	12,103	27,250	9,477	1,001	1,565	52,579

Source: IPEDS Completions, 1990, 1995, and 2000.

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Not surprisingly, the share of degrees granted at each level varied considerably by type of institution. The community colleges awarded most of the subbaccalaureate certificates (61%) and associate degrees (84%). The state colleges and universities awarded 43 percent of the bachelor's degrees and post-bachelor's certificates; the public research universities, 30 percent; and independent institutions, 26 percent.

At the master's degree level, the distribution of degrees was: independent institutions (38%), public research universities (36%), and state colleges and universities (24%). Fifty-two percent of the doctoral degrees granted in New Jersey in 2000 were awarded by the public research universities; independent institutions accounted for most of the rest. Public research universities also led in the production of first professional degrees (62%) with independent institutions second at 27 percent.

Over the last five years, the community colleges experienced an increase in the number of certificates awarded but a decrease in the number of associate degrees granted. The decrease in associate degrees may be attributed to two factors: a decline in enrollment during the mid-1990s and an increase in the number of students transferring to four-year institutions prior to graduation.

## D. Research

Academic research at New Jersey's colleges and universities is central to the economic infrastructure of the state and the nation. As illustrated in the highlighted examples, it is instrumental in improving lives, building businesses, creating jobs, and boosting productivity. In addition, academic research enhances teaching by enabling faculty to bring to the classroom the latest developments in their fields and direct students toward the innovations of the future.

New Jersey is increasing institutional capacity to conduct cutting-edge research and stimulate new discoveries that benefit society and strengthen the economy. Increased capacity also allows the state's higher education institutions to compete nationally for top-notch faculty and garner additional federal grants and contracts.

Enhanced academic research capacity augments the state's prominence as a hub for high-tech industries and ensures its role as a leader in innovation and progress.

### *Campus Highlight*

#### ***Research Improves Lives & Fuels the Economy: New Jersey's Public Research Universities***

##### ***University of Medicine and Dentistry***

Dr. Patrick Pullicino received a \$21 million, five-year grant to compare aspirin with other treatments for heart failure and recurrent stroke. UMDNJ was also awarded more than \$1 million by the Department of Defense to identify DNA profiles for disease-causing organisms.

Robert Wood Johnson Medical School faculty received \$5 million over a five-year period from the EPA and the National Institute of Environmental Health Sciences to create a new Center for Childhood Neurotoxicology and Assessment. The center will examine the possible influence of environmental exposures on the development of autism, learning disabilities, and behavioral problems.

##### ***Rutgers, The State University of New Jersey***

Professors Thomas Nosker and Richard Lehman in the School of Engineering are leading a team to establish a new Center for Advanced Materials via Immiscible Polymer Processing (AMIPP). The research center's goal is to develop technologies for advanced polymer- or plastic-based materials that can be rapidly brought to market, stimulating growth in the state's economy with new business opportunities and jobs. The New Jersey Commission on Science and Technology provided a \$2.35 million grant as seed funding for the project.

##### ***New Jersey Institute of Technology***

Peter Kastl and Ezra Ehrenkrantz of NJIT's Center for Architecture and Building Science Research are currently working on The Housing Technology Demonstration Park to provide a test-bed for the introduction of a range of cost-effective, energy-efficient, innovative building products to be used in the housing industry. The project is funded by the U.S. Department of Housing and Urban Development, the Casino Reinvestment Development Authority, the Atlantic County Improvement Authority, and the Department of Community Affairs.

A recent report by the Milken Institute found that of the top 30 high-technology metropolitan areas, 29 were home to, or within close proximity of, a major research university.\* States can improve the intellectual infrastructure by strengthening the research and development (R&D) capacity of their higher education system, investing in higher education in areas of industrial relevance, and encouraging greater university-industry interaction.

Table 5A reveals that New Jersey's higher education institutions have made respectable progress in expanding research expenditures between 1991 and 2000. Rutgers and Princeton continue to lead higher education in the state in research expenditures. New Jersey's three public research universities expended a total of almost \$300 million in FY 2000 on research, an increase of 26 percent from FY 1991. The independent institutions accounted for about one-third of all research expenditures by New Jersey higher education institutions. As a group, the independent institutions expended \$45 million in FY 2000, an increase of 41 percent between FY 1991 and FY 2000. Although the state colleges and universities generate less than 1.5 percent of research expenditures by New Jersey higher education institutions, they more than tripled such expenditures between FY 1991 and FY 2000.

**Table 5A: Research Expenditures by Selected New Jersey Institutions and Sectors: FY 1991 & FY 2000\* (Constant 2000 Dollars)**

	<u>1991</u>	<u>2000</u>	<u>Absolute Change</u>	<u>Percent Change</u>
NJIT	28,214,670	34,965,000	6,750,330	23.9%
Rutgers	131,151,036	159,555,000	28,403,964	21.7%
UMDNJ	74,697,288	101,383,000	26,685,712	35.7%
State colleges/universities	2,006,515	6,278,915	4,272,400	212.9%
Community colleges	1,463,392	1,001,022	-462,370	-31.6%
All public institutions	237,532,901	303,182,937	65,650,036	27.6%
Princeton	95,398,278	139,964,000	44,565,722	46.7%
Stevens	10,492,794	10,478,881	-13,913	-0.1%
Seton Hall	1,468,545	2,598,000	1,129,455	76.9%
All independent institutions	109,547,940	154,691,426	45,143,486	41.2%
<b>SYSTEM TOTAL</b>	<b>347,080,841</b>	<b>457,874,363</b>	<b>110,793,522</b>	<b>31.9%</b>
*Source: IPEDS Finance Survey. FY 1991 adjusted for inflation using the R&D subindex of the Higher Education Price Index (HEPI); sector totals include research spending by institutions other than those shown separately in the table.				

\* Ross C. DeVol, *America's High-Tech Economy: Growth, Development, and Risks for Metropolitan Areas* (Santa Monica, Calif.: Milken Institute, 1999). Two New Jersey areas were among the top 30 metropolitan areas noted. The Middlesex-Somerset-Hunterdon metropolitan area was ranked eleventh, and Newark was ranked twentieth.

Nationally, New Jersey ranks among the top 10 performing states in research and development with industry contributing a significant proportion of the expenditures.\* However, New Jersey colleges and universities still lag behind the nation in terms of per capita federal funding (Table 5B). The per capita R&D federal funding of \$31 for New Jersey is half that of the national level. Comparable per capita R&D funding for neighboring states in the northeast region ranges from \$52 (Delaware) to \$89 (Connecticut).

**Table 5B: Federally Financed R&D Expenditures in 2000 for New Jersey and US**

	<u>Absolute</u>	<u>Per Capita</u>
<b>New Jersey</b>	\$257,445,000	\$31
<b>US</b>	\$17,445,548,000	\$62
SOURCE: NSF WebCASPAR Database System.		
U.S. Census Bureau, Census 2000.		

In FY 2002, the Commission awarded \$5 million in grants for the six New Jersey universities to boost their capacity to conduct biomedical and other high-tech research. Allocated for the second consecutive year, the Biomedical and Other Technology Research Fund helps New Jersey's public and private research universities enhance their research capacity, compete nationally for top-notch faculty, and effectively garner additional federal grants and contracts. The capacity-building funds are being used to purchase state-of-the-art equipment, launch new research in biomedical and other high-tech areas with commercial and health care implications, and address New Jersey industry needs in the areas of pharmaceuticals, biotechnology, medical devices, and information technology. The second round of funding built on \$6.5 million earmarked for high-tech research capacity building in FY 2001, along with an additional \$3.5 million for matching funds to further enhance institutional ability to compete for federal research grants.

\* Richard Bennof, *R&D Spending is Highly Concentrated in a Small Number of States* (National Science Foundation, 1998)

## V. STUDENTS

### A. Enrollment/Demographics

In 1990, New Jersey's institutions enrolled a total of 323,314 students in credit-bearing courses; by 2000, total enrollment was 335,930 (a 3.9% increase). Preliminary figures for the fall 2001 semester show an increase of 3.1 percent in just the past year. Since 1990, graduate students consistently have represented about 15 percent of all students enrolled. Over the past five years, graduate student enrollment has increased by 3.8 percent. In contrast, undergraduate enrollment has risen by less than one percent.

Every type of institution with the exception of the community colleges experienced an increase in total enrollment between 1995 and 2000. The largest increase was experienced by the proprietary institutions (98.1%); other types of institutions with growth were the religious institutions (38.7%), public research universities (4.8%), state colleges and universities (2.0%), and independent institutions (1.8%) (Table 6).

<b>Table 6: Total Headcount Enrollment</b>				
<b>Institutional Type</b>		<b>1990</b>	<b>1995</b>	<b>2000</b>
Public research universities	Undergraduate students	40,105	40,826	43,994
	Postbaccalaureate students	18,483	19,454	19,216
	<b>Total</b>	<b>58,588</b>	<b>60,280</b>	<b>63,210</b>
State colleges/ universities	Undergraduate students	67,808	66,214	67,255
	Postbaccalaureate students	11,360	11,335	11,871
	<b>Total</b>	<b>79,168</b>	<b>77,549</b>	<b>79,126</b>
Community colleges	Undergraduate students	124,840	133,240	124,585
	Postbaccalaureate students	0	0	0
	<b>Total</b>	<b>124,840</b>	<b>133,240</b>	<b>124,585</b>
Independent institutions	Undergraduate students	40,431	38,874	40,091
	Postbaccalaureate students	15,980	16,069	17,495
	<b>Total</b>	<b>56,411</b>	<b>54,943</b>	<b>57,586</b>
Proprietary institutions	Undergraduate students	1,687	3,521	6,975
	Postbaccalaureate students	0	0	0
	<b>Total</b>	<b>1,687</b>	<b>3,521</b>	<b>6,975</b>
Religious institutions	Undergraduate students	640	785	1,867
	Postbaccalaureate students	1,980	2,421	2,581
	<b>Total</b>	<b>2,620</b>	<b>3,206</b>	<b>4,448</b>
<b>Total</b>	Undergraduate students	<b>275,511</b>	<b>283,460</b>	<b>284,767</b>
	Postbaccalaureate students	<b>47,803</b>	<b>49,279</b>	<b>51,163</b>
	<b>Total</b>	<b>323,314</b>	<b>332,739</b>	<b>335,930</b>

Source: IPEDS Fall Enrollment, 1990 through 2000.

In New Jersey, the state colleges and universities account for a larger percentage of students, both undergraduate and graduate, than do their peer institutions nationally. The public research universities account for a smaller percentage than is the case nationally. In New Jersey, almost one-quarter of all undergraduate and graduate students are enrolled in the state colleges and universities. In contrast, the state colleges and universities nationally enroll less than 15 percent of either undergraduate or graduate students. New Jersey's public research universities enroll only 15 percent of the undergraduate students and 38 percent of the graduate students statewide. Nationally, public research universities account for a much larger share of both undergraduate students (24%) and graduate students (45%). The proportion of students served by New Jersey community colleges and independent institutions is very close to that of both types of institutions nationally.

Not only is total headcount increasing, but a larger share of students are enrolling full time (Table 7). The percentage of undergraduate students enrolled full-time rose from 53 percent in 1990 to 62 percent in 2000. The percentage of graduate students enrolled full-time has increased from 32 percent to 37 percent in the same time frame. Every type of institution has experienced an increase in the proportion of its student body enrolled full-time. Between 2000 and 2001, full-time enrollment at community colleges rose 7.1 percent. This is the largest annual growth in full-time enrollment at New Jersey's community colleges since 1991.

<b>Table 7: Undergraduate Headcount Enrollment by Full-Time/Part-Time Status</b>				
<b>Institutional Type</b>		<b>1990</b>	<b>1995</b>	<b>2000</b>
Public research universities	Full-time students	31,390	32,272	36,425
	Part-time students	8,715	8,554	7,569
	% Full-time	78.3	79.0	82.8
State colleges/ universities	Full-time students	39,457	40,265	44,603
	Part-time students	28,351	25,949	22,652
	% Full-time	58.2	60.8	66.3
Community colleges	Full-time students	45,673	54,862	56,509
	Part-time students	79,167	78,378	68,076
	% Full-time	36.6	41.2	45.4
Independent institutions	Full-time students	27,709	27,023	30,568
	Part-time students	12,722	11,851	9,523
	% Full-time	68.5	69.5	76.2
Proprietary institutions	Full-time students	1,154	2,494	5,170
	Part-time students	533	1,027	1,805
	% Full-time	68.4	70.8	74.1
Religious institutions	Full-time students	614	727	1,760
	Part-time students	26	58	107
	% Full-time	95.9	92.6	94.3
<b>Systemwide totals</b>	Full-time students	<b>145,997</b>	<b>157,643</b>	<b>175,035</b>
	Part-time students	<b>129,514</b>	<b>125,817</b>	<b>109,732</b>
	% Full-time	<b>53.0</b>	<b>55.6</b>	<b>61.5</b>

Source: IPEDS Fall Enrollment, 1990 through 2000.

Over 90 percent of the undergraduates in New Jersey, and in each of the three public sectors, are state residents. At the independent institutions, New Jersey residents constitute more than three-quarters of the undergraduate population (Table 8).

The difference between the percentage of undergraduate students and the corresponding percentage of full-time faculty for the sectors is noteworthy. In 2000, community colleges enrolled approximately 44 percent of the undergraduate students in New Jersey but accounted for only 20 percent of the full-time faculty. This difference parallels the national experience. On the reverse end of the spectrum, public research universities accounted for 15 percent of the undergraduate students but 27 percent of the full-time faculty. Differences in the percentages of full-time faculty at public research universities can be attributed in part to faculty workloads that reflect greater expectations for research in addition to teaching.

Institutional Type	Number of		Number of		% In-State	
	In-State Students		Out-of-State Students			
	1995	2000	1995	2000	1995	2000
Public research universities	37,395	40,177	3,431	3,817	91.6	91.3
State colleges/universities	61,179	61,481	5,035	5,774	92.4	91.4
Community colleges	131,730	122,051	1,510	2,534	98.9	98.0
Independent institutions	29,789	30,727	9,085	9,364	76.6	76.6
Proprietary institutions	3,091	6,361	430	614	87.8	91.2
Religious institutions	160	588	625	1,279	20.4	31.5
<b>Total</b>	<b>263,344</b>	<b>261,385</b>	<b>20,116</b>	<b>23,382</b>	<b>92.9</b>	<b>91.8</b>

Source: IPEDS Fall Enrollment Survey, 1995 and 2000.

Between 1995 and 2000, the number of minority (African American and Hispanic) undergraduate students with known ethnicity at New Jersey colleges and universities increased 12.7 percent. In 1995, the proportion of undergraduate students who were minorities was 23.2%; by 2000, that proportion had risen to 27.1 percent. All sectors showed an increase in African-American and Hispanic undergraduate enrollments. At the same time, the Caucasian share of undergraduate students with known ethnicity statewide declined from 69.9 percent to 64.4 percent (Table 9).

It should be noted that the percentage of students with unknown ethnicity has risen over the past five years, from 4.9 percent in 1995 to 7.7 percent in 2000. The growth of this category as society becomes more racially and ethnically mixed may make it more difficult to determine specific changes in ethnic diversity.

	Public Research Universities		State Colleges/Universities		Community Colleges		Independent Institutions		Proprietary Institutions		Religious Institutions		Total		Change 1995-2000
	1995	2000	1995	2000	1995	2000	1995	2000	1995	2000	1995	2000	1995	2000	%
<b>White</b>	23,240	22,206	46,622	44,361	85,652	68,437	25,584	24,186	1,905	2,902	624	1,731	183,627	163,823	-10.8
<b>Black</b>	4,690	4,792	7,158	7,722	17,399	17,628	4,053	4,397	699	1,668	20	42	34,019	36,249	6.6
<b>Hispanic</b>	3,986	4,041	6,612	7,937	13,008	15,589	2,931	3,533	589	1,580	3	4	27,129	32,684	20.5
<b>Asian American</b>	6,145	7,801	2,430	2,964	6,206	7,122	2,176	2,378	126	352	21	24	17,104	20,641	20.7
<b>American Indian</b>	140	98	216	215	340	312	115	115	6	176	0	0	817	916	12.1
<b>Subtotal</b>	<b>38,201</b>	<b>38,938</b>	<b>63,038</b>	<b>63,199</b>	<b>122,605</b>	<b>109,088</b>	<b>34,859</b>	<b>34,609</b>	<b>3,325</b>	<b>6,678</b>	<b>668</b>	<b>1,801</b>	<b>262,696</b>	<b>254,313</b>	<b>-3.2</b>
<b>Nonresident Alien</b>	926	1,411	1,507	1,769	3,158	3,810	1,121	1,339	20	64	117	66	6,849	8,459	23.5
<b>Unknown</b>	1,699	3,645	1,669	2,287	7,477	11,687	2,894	4,143	176	233	0	0	13,915	21,995	58.1
<b>Grand Total</b>	<b>40,826</b>	<b>43,994</b>	<b>66,214</b>	<b>67,255</b>	<b>133,240</b>	<b>124,585</b>	<b>38,874</b>	<b>40,091</b>	<b>3,521</b>	<b>6,975</b>	<b>785</b>	<b>1,867</b>	<b>283,460</b>	<b>284,767</b>	<b>0.5</b>

Source: IPEDS Fall Enrollment, 1995 and 2000.

The gender distribution of New Jersey’s college and university students has remained level at 43 percent male and 57 percent female for undergraduates, and 45 percent male and 55 percent female for postbaccalaureate students over the past five years. In only two institutional types do males account for a majority of the students: proprietary institutions and religious institutions.

In 1998 (the most recent year for which migration data are available), approximately 35 percent of all New Jersey high school graduates did not attend college within 12 months of graduation, 36 percent attended a two- or four-year college or university in the state, and 29 percent attended college at an out-of-state institution.

If current college attendance patterns persist, the cumulative effects of the increased freshman classes between 2001 and 2005 will result in an enrollment increase of 9,430 students by 2005; the four-year period from 2005 to 2008 would generate an overall increase of 22,022 more students in 2008 than are currently enrolled in 2001. If the percentage of high school graduates who attend college in New Jersey within 12 months of graduation continues to grow, the cumulative effect over a four-year period would be significantly higher, reaching 36,800 additional enrolled students in 2008.

New Jersey faces an exigent policy decision as to whether and how the capacity of its higher education system should be increased to serve the greater number of high school graduates and the growing nontraditional student population who will seek a college education.

### *Campus Highlight*

#### ***Addressing Capacity Through Partnerships: New Jersey Coastal Communiversity***

The New Jersey Coastal Communiversity, which began classes in fall 2001, is an alliance of seven colleges and universities offering associate, bachelor's and master's degrees, and graduate certificates to residents in Monmouth and Ocean counties. The first of its kind in New Jersey, the Communiversity is a multi-institutional response to capacity issues and the growing educational needs of individuals and businesses in the region.

Brookdale Community College and Ocean County College offer associate degrees for transfer into selected bachelor's degree programs offered by other participating Communiversity institutions (Georgian Court College, Kean University, NJIT, Montclair State University, and Rutgers University). Some graduate degrees and certificates are also available through Communiversity partners.

## B. Freshmen

At four-year higher education institutions, one assessment of entering students, the SAT, historically has gauged the likelihood of academic success in college. Across all New Jersey senior institutions, both public and independent, the fall 2000 entering full-time first-time freshman\* class posted average SAT scores of 537 in verbal and 554 in math. These average scores exceed those for all national test-takers (college bound seniors) by 32 points in verbal and 40 points in math [National scores were 505 (verbal) and 514 (math).]

Table 10 indicates improvements in both the SAT math and verbal scores across public four-year sectors over the last five years. This is an indication that New Jersey institutions are attracting more highly qualified students.

Another measure, sometimes used in conjunction with SAT scores, is high school rank. For fall 2000, the average high school percentile rank of students enrolling in college by type of institution was as follows: public research universities – 78, state colleges/universities – 71, independent institutions – 63. In regard to high school rank, only the state college and university sector showed an improvement between 1995 and 2000.

As “open admission” institutions, community colleges do not admit students based on their SAT scores or high school rank. SAT scores and high school rank measures are also less relevant in the admission of non-traditional students at four-year institutions.

Many institutions offer special programs to assist students in the transition from high school to college. The campus highlight above demonstrates how one university involves upperclass students in the orientation process for new students.

\* All admit types (regular, special, and EOF).

### Campus Highlight

#### *Lending Freshmen a Guiding Hand: Rowan University’s Peer Program*

Helping to provide incoming students with a smooth and helpful transition to college life, a special group of upper class students at Rowan University known as the PROS are active participants in the school’s two-day overnight orientation program and are available to students throughout their academic career.

The PROS, or Peer Referral and Orientation Staff, are a group of students who know firsthand what it is like to deal with concerns at the university. They offer peer assistance in resolving personal, social, and educational conflicts. They also aid students in their general adjustment to college life by serving as orientation leaders.

The PROS program was founded in 1984 with the idea that a student often feels more comfortable speaking with peers than with a parent, faculty, or staff member. Working hand-in-hand with the Counseling Center, PROS participate in confidential counseling and host workshops on everything from sexual harassment and time management to how to handle roommate conflicts and stress.

**Table 10: Full-Time First-Time Freshman Profile**

	Pub. Research Universities		State Colleges/ Universities		Independent Institutions	
	1995	2000	1995	2000	1995	2000
Mean SAT Math	582	590	516	529	549	543
Mean SAT Verbal	558	560	513	517	552	534
Mean High School Rank	79	78	69	71	66	63
% NJ Residents	88.4%	90.4%	97.8%	96.1%	66.7%	70.3%
Source: SURE system and IPEDS.						

### C. Transfer Students

An expanding cooperative movement is taking shape in New Jersey. Joint admissions policies, dual degree programs such as that described in the campus highlight on the next page, and the establishment of NJ Transfer – a program that helps community college students transfer credits in the State of New Jersey – exemplify interinstitutional efforts to assist students in advancing their academic careers. Although progress is being made, efforts must be improved in order to promote a smoother transition between all of New Jersey’s two-year and four-year institutions.

In 2000, almost 9,500 students transferred into New Jersey’s public research universities and state colleges/universities. As can be seen in Table 11, the number of new transfer students at public research universities increased by almost 5 percent between 1995 and 2000. In contrast, the number of new transfer students at the state colleges/universities has declined by six percent. Growth in the demand for enrollment by full-time first-time freshmen may have contributed to the decline in new transfer students at the state colleges and universities.

#### Campus Highlight

#### *Transferring Success: Dawn Cook*

During the fall 2001 semester, Dawn Cook of Hamilton, a biology major at Mercer County Community College (MCCC), spent hours in a Rider University research lab analyzing the impact of stress on the immune system.

Cook conducted experiments showing how psychological stress alters antibody production, and she found that the effects of the immunosuppressant drug, cyclophosphamide, on the nervous system hormones are altered in stressed subjects. “These experiments are important in understanding how the mind talks to the rest of the body and therefore how the mind can influence susceptibility to disease,” says Cook, who is transferring to Rider in fall 2002 as a junior. Since September 2001, Cook, who maintains a 3.9 average at Mercer County Community College, has taken an honors research course offered in special partnership between MCCC and Rider.

Cook’s work is part of ongoing research concerning behavioral influences on the immune system conducted by Dr. Jonathan Karp, assistant professor of biology. “Dawn is a highly motivated student who has done an excellent job in the lab,” said Karp. “We are always looking for top students to introduce to laboratory research and our association with MCCC has brought to Rider some of the best research assistants we have.”

**Table 11: New Transfer Students Enrolled in Senior Public Institutions**

		from NJ Community Colleges		from NJ Senior Public Institutions		from Out-of-State/Other*		Total Transfer Students	
		1995	2000	1995	2000	1995	2000	1995	2000
<b>Public research universities</b>	#	1,636	1,613	237	181	1,662	1,910	3,535	3,704
	%	46.3	43.6	6.7	4.9	47.0	51.6	100	100
<b>State colleges/universities</b>	#	3,280	2,964	583	423	2,249	2,338	6,112	5,725
	%	53.7	51.8	9.5	7.4	36.8	40.8	100	100

Source: CHE SURE system.

Note: Thomas Edison State College and UMDNJ were excluded.

\*Includes transfers from NJ independent institutions, out-of-state institutions and unknown.

The proportion of students transferring from New Jersey community colleges declined at both the public research universities (from 46.3% in 1995 to 43.6% in 2000) and the state colleges/universities (from 53.7% in 1995 to 51.8% in 2000).

On the other hand, the proportion of students transferring from out-of-state or private New Jersey colleges and universities increased at both the public research universities (from 46.0% in 1995 to 51.6% in 2000) and the state colleges/universities (from 36.8% in 1995 to 40.8% in 2000). Transfer of students among the senior public institutions is relatively limited, accounting for only about six percent of total transfers in 2000.

Additional research on transfer admissions including applications, acceptances, and enrollees would help to identify the reasons for these trends.

### *Campus Highlight*

#### ***Transfer Partnerships Between New Jersey's Two- and Four-Year Institutions: Rutgers New Dual Degree Program***

With the state's high school graduating classes on the rise and limited capacity at many of New Jersey's four-year colleges and universities, Rutgers, in partnership with all 19 of the state's community colleges, has struck an innovative arrangement for guaranteed admission for students.

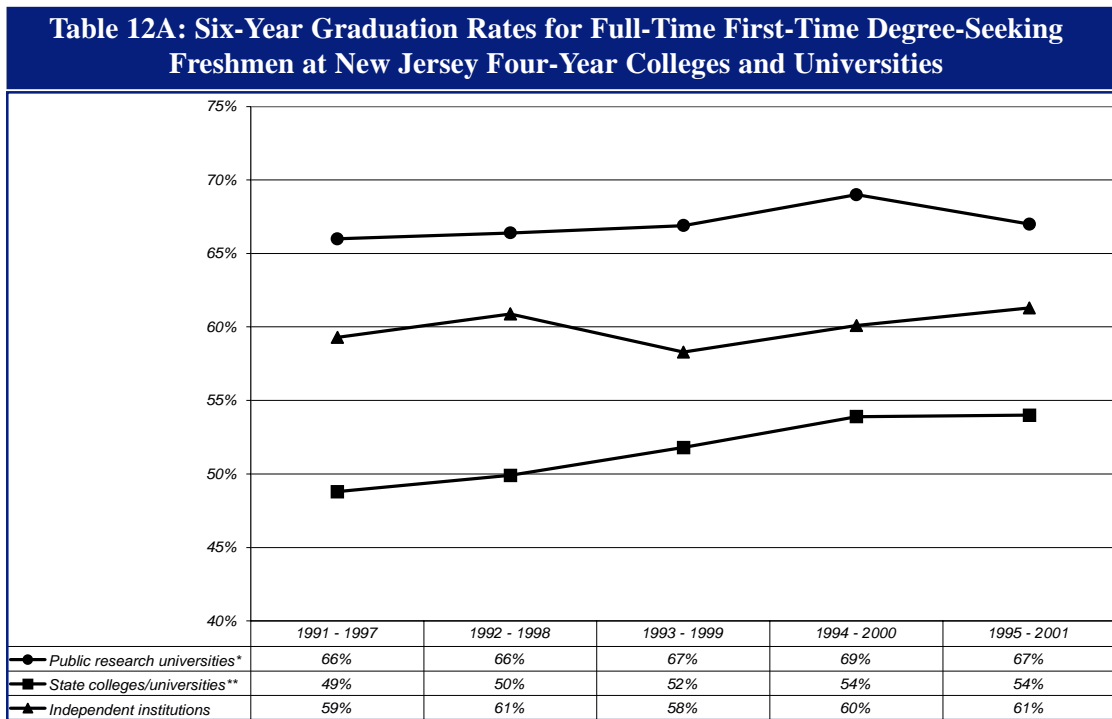
Through a new Dual Degree Program, Rutgers will offer all qualified first-year students for whom space is unavailable an option to enroll at a community college of their choice with guaranteed entry to Rutgers upon satisfactory completion of the associate degree. Participating students must achieve a 3.0 grade point average and be enrolled in a recommended transfer program. Academically qualified students who would otherwise be rejected solely because of space limitations will have a clear path for obtaining their goal of a Rutgers diploma.

Although not slated to begin until the fall 2002, approximately 500 students have already accepted an offer of admission to Rutgers University through the Dual Degree Program. The program will simplify the transition process, making it easier, more affordable, and efficient for students to transfer from any New Jersey community college to an upper-level baccalaureate degree program at Rutgers.

### D. Graduation Rates and Retention

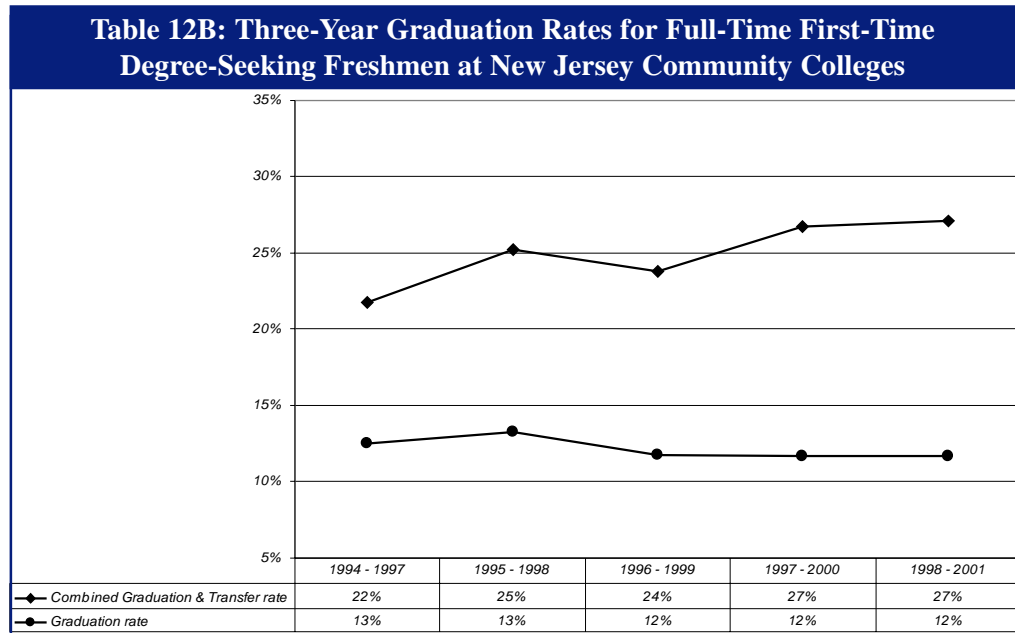
It has become increasingly common in American higher education over recent decades for undergraduate students to spend more than four years to earn baccalaureate degrees and more than two years to earn associate degrees. The Commission on Higher Education examined degree completion trends in depth in its Fifth Annual Systemwide Accountability Report, which indicated New Jersey institutions outperform the national average on student graduation rates. Nevertheless, continued expectation of accountability, productivity, and cost containment, and the need for a highly skilled workforce demand more timely graduation rates. Higher education's growing student population and limited capacity only heightens that demand.

To determine graduation rates, baccalaureate institutions typically calculate the percentage of full-time first-time degree-seeking students in a specified entering year who complete their baccalaureate degree within a six-year period. As can be seen in Table 12A, all four-year institutional types show improvement in graduation rates. Of the cohort of full-time first-time degree seeking freshmen beginning in 1995 at New Jersey's public research universities, 67 percent graduated within six years. This compares to 61 percent for the independent institutions and 54 percent for the state colleges/universities.

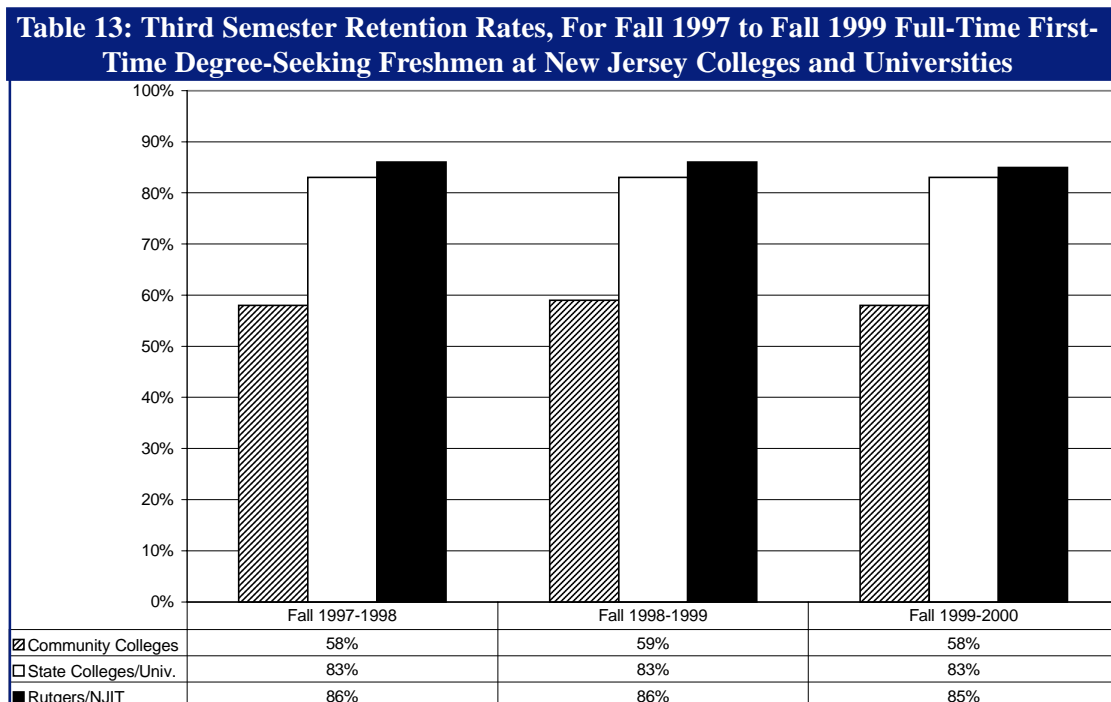


Delays in undergraduate degree completion arise from complex circumstances or interactions that differ markedly among colleges and universities and among students. Some factors are institutionally specific such as course availability and quality of advisement, while others are more individualized and are based on students' personal circumstances.

Community colleges determine graduation rates by calculating the percentage of full-time first-time degree-seeking students in an entry year cohort who complete the associate degree within three years. The three-year graduation rate for New Jersey community colleges was approximately 12 percent for the 1998 entry cohort. Since a graduation rate alone fails to capture the total mission of community colleges where graduation is not the ultimate goal of many students, Table 12B also presents the combined graduation and transfer rates for past cohorts of full-time first-time freshmen. The community college graduation rate declined slightly; however, the combined graduation/transfer rate rose from 21.8 percent for the 1994 cohort to 27.1 percent for the 1998 cohort. More community college students are transferring prior to completing the associate degree.



The retention rate (the percentage of full-time degree-seeking students starting in a given fall term who enroll the following fall) is 58 percent for the community colleges, 83 percent for the state colleges/universities, and 85 percent for the public research institutions (Table 13). Students may not return because they drop out, stop out (leaving school for financial, personal, or other reasons with a plan to resume classes later), or transfer to another institution.



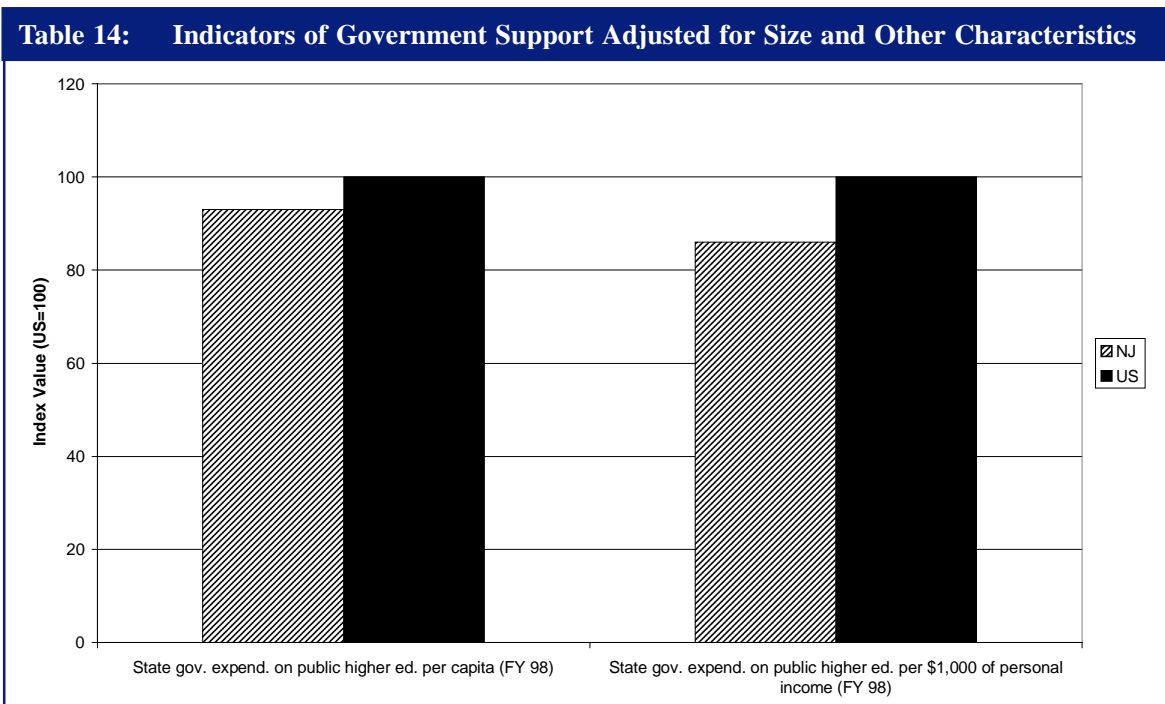
## VI. AFFORDABILITY AND ACCESS

### A. State/Local Support for Higher Education

State funding for higher education has a significant impact on students, institutions, the higher education system, and the state as a whole. Funding levels affect institutional programs and services as well as tuition levels, and an inadequate level of state support can threaten higher education affordability, access, and choice of institutions. Ongoing government support of higher education is essential not only to students, but also to the state's economic well-being, which depends on higher education's ability to develop the workforce and assist business and industry in maintaining New Jersey's economic competitiveness.

State government appropriations support institutional operating aid, student financial aid, capital expenditures, and grants and contracts. New Jersey's colleges and universities rely on state support to varying degrees. The state provides the primary support for 12 senior institutions, and in partnership with county governments it provides support for the 19 community colleges. Fiscal support is also provided by the state to 14 independent colleges and universities with a public mission.

Various ways exist to measure the level of state government funding for higher education. Some indicators are influenced by the size and other relevant characteristics of a state's higher education system, and therefore they need to be adjusted to account for such factors. Based on the most current national data available (FY1998), when appropriate adjustments are made (Table 14), New Jersey is slightly below the national average in terms of state government expenditures on public higher education per capita and also slightly below the national average in terms of state government spending on public higher education per \$1,000 of personal income.



Note: State government expenditures on public education include operating aid for public institutions, as well as state-funded financial aid for students attending those institutions, minus state expenditures for research, agriculture, public health care, and medical schools. Capital funding by the state is excluded. The data were adjusted for cost of living. The indicators (before special adjustments for size and other factors) were calculated from data in Kent Halstead, *State Profiles: Financing Public Higher Education, 1998 Rankings*, September 1998, p. 32; original indicator 2 also uses data from the Bureau of Economic Analysis (Annual Disposable Personal Income Data for 1998).

Trends in the level of state and local support for higher education have varied by sector (Table 15). The state share of operating expenditures for community colleges increased from 24.7 percent in FY 1994 to 28.6 percent in FY 2001. Financial support from counties continues to vary, with some paying more than one-third and some paying much less. The average percentage contribution by counties has decreased, however, from 34.3 percent in FY 1994 to 30.1 percent in FY 2001.

In contrast, senior public institutions have experienced a decline in the state share of their operating expenses. Figures for FY 2001 indicate that the state paid 56.6 percent of institutional operating costs including fringe benefits, down from 63.8 percent in FY 1994.

<b>Table 15: Shares of Operating Aid</b>								
<b>Community Colleges</b>								
	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>
Tuition/Fees	41.1%	42.0%	43.5%	43.7%	43.5%	42.5%	41.8%	41.3%
State	24.7%	24.0%	24.0%	23.7%	24.8%	26.3%	27.7%	28.6%
County	34.3%	34.0%	32.4%	32.7%	31.7%	31.2%	30.5%	30.1%
<b>Senior Public Institutions*</b>								
	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>
Tuition/Fees	36.2%	36.4%	37.7%	39.7%	41.3%	42.8%	43.3%	43.4%
State	63.8%	63.6%	62.3%	60.3%	58.7%	57.2%	56.7%	56.6%
*Excludes UMDNJ and Thomas Edison State College.								
Source: IPEDS Finance Survey and New Jersey Budget Book.								

## B. Undergraduate Tuition and Fees

Student tuition and fees increase annually at most colleges and universities. Table 16 shows both the combined tuition and fee levels in New Jersey since the 1992-1993 academic year and the percentage increase each year. The increases varied considerably among sectors and across years. For the public institutions, the variation is usually tied closely to the level of state support in a given year. The relationship is clearly demonstrated in the community college sector, which had very low increases from 1998 to 2001 when state funding was significantly increased.

<b>Table 16: Average Annual In-State Full-Time Undergraduate Tuition and Required Fees at New Jersey Colleges and Universities: Academic Years 1992-1993 Through 2001-2002</b>										
<u>AVERAGE</u>	<u>1992-93</u>	<u>1993-94</u>	<u>1994-95</u>	<u>1995-96</u>	<u>1996-97</u>	<u>1997-98</u>	<u>1998-99</u>	<u>1999-00</u>	<u>2000-01</u>	<u>2001-02</u>
Rutgers/NJIT	4,295	4,514	4,743	5,008	5,270	5,568	5,966	6,240	6,532	6,928
Change (%)	5.4	5.1	5.1	5.6	5.2	5.7	7.1	4.6	4.7	6.1
State colleges/ universities	2,873	2,980	3,162	3,350	3,645	4,000	4,355	4,701	5,069	5,593
Change (%)	9.5	3.7	6.1	5.9	8.8	9.7	8.9	7.9	7.8	10.3
Community colleges	1,489	1,563	1,854	1,999	2,104	2,212	2,247	2,310	2,337	2,399
Change (%)	6.1	5.0	18.6	7.8	5.3	5.1	1.6	2.8	1.2	2.7
Independent institutions	11,214	11,875	12,407	12,998	13,715	14,442	15,269	16,011	16,793	17,715
Change (%)	6.8	5.9	4.5	4.8	5.5	5.3	5.7	4.9	4.9	5.5
Source: NJIPEDS Form#14. "Annual" is defined here as 30 credit hours; therefore, tuitions that are charged on a per-credit-hour basis are multiplied by 30 to derive the annual figures.										

The average tuition and fees for undergraduates at state colleges and universities across the nation is \$3,359, compared with \$4,408 in New Jersey (Table 17). Tuition and fees at the state’s public research universities are approximately \$1,700 higher than at their peer institutions nationally, and tuition and fees at the independent institutions are approximately \$550 lower than the national average of \$16,366.

<b>Table 17: Average* Undergraduate Tuition and Fees, FY 2001</b>					
<b>Sector</b>	<b>NJ</b>			<b>US</b>	
	<b>N**</b>	<b>Mean</b>	<b>Adjusted</b>	<b>N**</b>	<b>Mean</b>
Community colleges	19	\$2,310	\$2,012	873	\$1,428
State colleges/universities (Edison excluded)	8	\$5,060	\$4,408	275	\$3,359
Public research universities (UMDNJ excluded)	4	\$6,336	\$5,519	194	\$3,784
Independent institutions	14	\$18,154	\$15,814	942	\$16,366
Source: NCES, IPEDS, Institutional Characteristic, Fall Enrollment Survey, 2000.					
*The averages of institutions are weighted by the numbers of full-time undergraduates.					
**N is the number of institutions in each sector for NJ and US.					
***Adjusted by the 1999 AFT Interstate Cost-of-Living Index.					

### C. Student Financial Assistance

A newly released report by the lobbying arm of State Public Interest Research Group, a nonprofit organization that studies social policy, revealed that student debt nationally doubled between 1992 and 2000. The average loan debt for a full-time student at a four-year institution was \$16,928 in 1999-2000. The report, based on data from the United States Census and the Department of Education’s National Center for Education Statistics (NCES), showed that the share of students who financed their education by borrowing rose from 42 percent in 1992 to 59 percent in 1996. By 2000, 64 percent of students relied on loans to help finance their education. Nationally, a third of students graduating owe more than \$20,000 in education loans.

For the second consecutive year, the NCES included student aid data in IPEDS, making it possible to compare New Jersey with the nation on student assistance generally and specifically with respect to federal grants, state and local grants, institutional grants, and loans. As indicated in Table 18, students attending schools in each of New Jersey’s higher education sectors except community colleges received an equal or greater amount of aid than those attending comparable institutions across the nation. A smaller percentage of New Jersey community college students received aid than did their national counterparts. It should be noted that many students receive more than one form of financial aid, while others receive none.

<b>Table 18: Average* Percentage of Full-Time First-Time Degree/Certificate-Seeking Undergraduates Who Receive Any Aid</b>				
<b>Sector</b>	<b>NJ</b>		<b>US</b>	
	<b>N**</b>	<b>Mean Pct</b>	<b>N**</b>	<b>Mean Pct</b>
Community colleges	19	51.8	915	56.0
State colleges/universities (Edison excluded)	8	77.2	300	70.6
Public research universities (UMDNJ excluded)	4	74.6	207	69.8
Independent institutions	14	83.6	924	82.1
Source: NCES, IPEDS, Student Financial Aid Survey, 2000.				
*The averages of institutions are weighted by the numbers of first-time full-time undergraduates.				
**N is the number of institutions in each sector for NJ and US.				

Table 19 reveals that a greater proportion of New Jersey’s full-time first-time freshmen in every sector receive state/local aid than do their counterparts nationally. New Jersey students are more likely than those in other states to receive federal aid. New Jersey’s full-time first-time students are less likely than their peers nationally to receive institutional grants or take out loans. At New Jersey’s independent institutions, students are more likely to receive federal, state, local, and institutional grants and less likely to take out loans than their peers at similar institutions nationally.

**Table 19: Student Financial Aid to Full-Time First-Time Degree/Certificate-Seeking Undergraduates**

Sector	Type of aid	NJ				US		
		N*	Pct of Student Receiving Aid	Average Amount of Aid**	Adjusted Amount***	N*	Pct of Student Receiving Aid	Average Amount of Aid**
County colleges	Fed grants	19	34.9	\$1,956	\$1,704	915	34.2	\$1,980
	State/local	19	30.6	\$1,343	\$1,170	915	27.0	\$840
	Inst. grants	19	2.3	\$781	\$680	909	12.5	\$798
	Loans	19	10.0	\$1,995	\$1,738	907	15.0	\$1,974
State colleges/universities (Edison excluded)	Fed grants	8	30.5	\$3,207	\$2,793	300	32.9	\$2,173
	State/local	8	43.9	\$2,843	\$2,476	299	34.9	\$1,602
	Inst. grants	8	26.9	\$2,287	\$1,992	299	24.6	\$1,737
	Loans	8	52.3	\$3,717	\$3,238	299	43.9	\$2,780
Public research universities (UMDNJ excluded)	Fed grants	4	27.1	\$2,447	\$2,132	207	24.2	\$2,419
	State/local	4	50.1	\$4,165	\$3,628	207	32.5	\$1,922
	Inst. grants	4	34.5	\$2,471	\$2,152	207	31.4	\$2,729
	Loans	4	52.1	\$3,929	\$3,422	207	41.3	\$3,211
Independent institutions	Fed grants	14	38.2	\$2,505	\$2,182	918	27.7	\$2,861
	State/local	14	41.5	\$4,512	\$3,930	918	33.9	\$2,917
	Inst. grants	14	76.4	\$7,471	\$6,508	919	70.9	\$7,560
	Loans	14	54.6	\$3,595	\$3,132	919	59.6	\$3,945
Source: IPEDS, Student Financial Aid Survey, 2000.								
* N is the number of institutions in each sector for NJ and US.								
** The averages of institutions are weighted by the numbers of first-time full-time undergraduates.								
*** Adjusted by the 1999 AFT Interstate Cost-of-Living Index.								

***Campus Highlight******Increased Student Access:  
Essex County College Empowers  
Newark School Kids***

The Commission on Higher Education administers a federally-funded GEAR UP program in the cities of Newark, Camden, Jersey City and Trenton. In addition, seven partnership grants, including GEAR UP NEWARK, are funded separately by the federal government.

Spearheading Essex County College's GEAR UP NEWARK effort are colleges and community-based organizations that provide programs and services to improve academic achievement and smooth the transition from middle school to high school and from high school to college. Project partners include the Newark Public Schools with Essex County College, Montclair State University, New Jersey Institute of Technology, and Rutgers University-Newark.

The goals of GEAR UP NEWARK are to strengthen and build the capacity of Central High School feeder schools, thereby improving student academic achievement and increasing the number of low-income minority students who are prepared for and pursue postsecondary education. At the end of five years, the GEAR UP NEWARK partnership will serve a cohort of nearly 6,000 students.

**D. Programs and Initiatives to Enhance Access**

**NJ GEAR UP** recruits and serves students from 10 middle and seven high schools in the cities of Camden, Jersey City, Newark, and Trenton. In the fall of 1999, the New Jersey Commission on Higher Education received a GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) grant from the U.S. Department of Education. Participating students receive educational support and assistance to complete high school and enroll in a college or university. Guidance counselors, students, and parents in schools targeted by NJ GEAR UP receive information about college financial aid opportunities in workshops provided by the New Jersey Higher Education Student Assistance Authority. New Jersey will receive a total of \$10 million over the five-year grant.

**The New Jersey Educational Opportunity Fund** assists low-income New Jersey residents who are capable and motivated but lack adequate preparation for college study. To ensure the opportunity to attend college, the fund provides supplemental financial aid to help cover college costs (such as books, fees, room and board) that are not covered by the state's Tuition Aid Grant Program (TAG). The Fund supports a wide array of campus-based outreach and support services at 28 public and 13 independent institutions. EOF enrolls about 12.5 percent of the first-time full-time New Jersey freshmen who enter the state's colleges and universities each fall.

**The Special Needs Grant Program** provides support services for students with disabilities. For FY 2001, a total of \$1,100,000 was appropriated for this grant program. There are eight centers located throughout the state providing direct assistance to students with learning disabilities or who are deaf, hard of hearing, or have visual impairments. The centers deliver integrated, individualized, direct services to students and technical assistance to other colleges and universities in the state.

**The Tuition Aid Grant Program (TAG)** reduces the tuition cost to attend college in New Jersey for financially needy full-time state residents. The program provides up to full tuition grants at public institutions for the neediest students (or up to 50 percent of the average tuition at independent colleges and universities). More than one-third of all TAG aid goes to students attending independent colleges and universities, and more than one-quarter to students at the public research universities; the state colleges and universities account for about one-fifth of TAG funding, and the community colleges, the remaining one-sixth. The TAG program assists about a third of eligible, full-time undergraduates in New Jersey. Currently, approximately \$170,000,000 in TAG is awarded each year to about 60,000 qualified students. More than 280,000 students apply annually.

To further assist part-time students sectorwide, the Commission on Higher Education, the Presidents' Council, and the Higher Education Student Assistance Authority continue to endorse the concept of establishing a Tuition Aid Grant (TAG) program for part-time students without limiting funds for those who attend full-time.

The **Education of Language Minority Students Grant Program** provides funds to develop or strengthen programs for language minority students who are residents of New Jersey. The State of New Jersey supports efforts to enhance services to language minority students at its colleges and universities. For FY 2002, \$600,000 was appropriated for this grant program.

The **College Bound Grant Program** addresses the educational needs and aspirations of urban/minority youth in grades 6-12. The grant supports precollege educational enrichment activities to help ensure completion of secondary school; to increase college admission, retention, and graduation rates of these students; and to encourage the successful pursuit of postsecondary education in the sciences, mathematics, or technology. Statewide, 10 programs hosted by New Jersey colleges and universities serve over 2,000 students. A total of \$2.9 million was appropriated for College Bound in FY 2002.

## VIII: CONTRIBUTIONS TO NEW JERSEY'S ECONOMY AND SOCIETY

With intellectual capital and human resource development underpinning economic success and quality of life, colleges and universities play a vital role in ensuring prosperity for New Jersey's citizenry and creating a competitive edge in today's knowledge-based, global economy.

### A. Economic Impact

Each year, New Jersey's colleges and universities generate billions of dollars in economic activity, expending funds for labor, materials, and services. Capital investments help invigorate local economies, and colleges and universities contribute significantly to the state's tax base.

Several of the state's individual colleges and universities and cooperative partnerships like The Council for Higher Education in Newark (CHEN) have measured higher education's significant and varied impact on New Jersey's local and state economy.

Several institutions also participate in programs launched to advance and promote business incubation as a highly effective economic development tool for the state.

For example, in 1988, NJIT, in cooperation with the New Jersey Commission on Science and Technology, founded the Enterprise Development Center (EDC), a technology-oriented small business incubator. The EDC addresses many of the problems that young technology-based businesses have in obtaining appropriate technology, market information, management assistance, and access to capital.

The program provides a broad base of support and acts as a "proving ground" for new and developing high-tech products. In short, the incubator exists to increase the rate of small business formations and to decrease

### *Campus Highlight*

#### ***Measuring Higher Education's Economic Impact: The Council for Higher Education in Newark***

Newark's four public institutions of higher learning contribute significantly to the local and state economy, according to a report that was issued by The Council for Higher Education in Newark (CHEN).

In addition to direct expenditures, the CHEN institutions—Essex County College, New Jersey Institute of Technology, Rutgers University-Newark, and the University of Medicine and Dentistry of New Jersey—provide a diverse array of community services.

Funds expended for labor, materials, and services create a ripple effect that benefits nearly every sector of the New Jersey economy, particularly within the City of Newark and Essex County.

- If viewed as a business, CHEN would be a \$1.1 billion corporation with more than 11,800 employees, \$480 million in payrolls, and 26,000 students. CHEN ranks as one of the largest employers in Newark, providing nine percent of all jobs in the city.
- In fiscal year 2000, CHEN helped to generate more than \$2.6 billion in total spending in the state resulting from its initial expenditure of \$1.1 billion.
- CHEN activities generated 24,558 full-time jobs throughout the state's economy.
- For every dollar CHEN received in support from direct appropriations from the State of New Jersey, CHEN generated \$8.47 in total spending, including \$2.94 in wages, throughout the state's economy.
- CHEN operations generated \$80.4 million in total New Jersey state taxes in fiscal year 2000.

Capital investments in CHEN institutions between 1990 and 2000 generated a total of \$923 million in spending and 7,843 construction-related jobs throughout the state.

the failure rate of startup small companies by assisting them to commercialize their new products, processes, and services.

Other examples of incubators include:

- The High Technology Small Business Incubator in Mount Laurel, sponsored by Burlington County College;
- The Picatinny Innovation Center, sponsored by the County College of Morris;
- The Technology Help Desk and Incubator in New Brunswick, sponsored by Rutgers University;
- The Technology Ventures Incubator in Hoboken, sponsored by Stevens Institute of Technology; and
- The Trenton Business & Technology Center, sponsored by Mercer County Community College.

## B. Educational Attainment

Nationwide, the percentage of the population aged 25 to 65 holding a bachelor's degree or higher has increased over the past decade.

Based on the report by the National Center for Public Policy and Higher Education, "Measuring Up 2000," 33 percent of New Jersey's population aged 25 to 65 has achieved a bachelor's degree or higher. States that have a population with a high educational attainment level tend to reap greater economic benefits. Nationally, educational attainment among states has risen over the past decade. States range from a high of 37 percent (Maryland) to a low of 17 percent (West Virginia) on this measure. In addition to ranking among the top five states in educational attainment, New Jersey ranks second nationally in increased personal income from education and ranks first in charitable contributions.

New Jersey colleges and universities have initiated programs such as that described in the campus highlight on this page to encourage higher levels of educational attainment.

### *Campus Highlight*

#### ***Education's Partnerships with Business: Cumberland County College and School Counts!***

In an effort to enhance job readiness, provide an added avenue for higher education, and help residents improve their overall quality of life, Cumberland County College has embraced the statewide initiative *School Counts!* – a milestone collaboration between business and education leaders.

Launched by the Business Coalition for Educational Excellence at the New Jersey Chamber of Commerce, the program emphasizes to students the vital link between academic performance and future employment.

Local participating employers in the program are encouraged to request a school-based certificate that documents student performance during high school.

In order to achieve *School Counts!* status, a student must be in attendance and on time at least 95 percent of the time, maintain at least a "C" or better in every course, take at least one more course than required for graduation, and complete high school in eight consecutive semesters.

The Cumberland County College Foundation is committed to raise a \$2 million endowment to provide two-year tuition scholarships to every county high school graduate who earns a *School Counts!* certificate for all four years of high school. The overall goal is to provide every high school graduate in the county the financial support to attend college.

### **C. Societal Benefits**

In addition to contributing to research, the economy, and the advancement of knowledge, New Jersey's colleges and universities have a significant impact on the well-being of communities. Higher education institutions sponsor local programs, projects, and activities that improve the lives of individuals, families, and businesses. Working with their middle school and high school counterparts, colleges and universities provide guidance and support to enhance access and better prepare students for the workforce demands of the future.

New Jersey colleges and universities assist local and state governments in developing constructive policies and programs involving areas such as telecommunications, regional transportation, high-tech industries, manufacturing, culture, and housing. They provide health care services, employment assistance, family support programs, and school facilities for use by community groups.

New Jersey's colleges and universities stand ready to assist society in times of need. Across the state, college and university faculty, staff, and students responded to September 11, 2001, in many ways. For example, trained clinicians from UMDNJ offered free grief and anxiety counseling to adults and children at 11 locations throughout the state. Ricky Matthews, an undergraduate student majoring in biology at New Jersey City University, organized a volunteer group that traveled to New York City and helped displaced victims in areas surrounding the World Trade Center. Just four days after the attack, the Director of the Nursing Learning Resource Center at Bloomfield College was one of many faculty and students who volunteered their services at Ground Zero, delivering medical supplies, setting up a triage unit, and assisting displaced victims, firefighters, and rescue workers.

### **D. Collaboration Between P-12 and Higher Education**

In order to meet the need and demand for a prepared workforce and a literate citizenry with critical thinking skills, the entire education system, from preschool through graduate school, must work together. New Jersey's workforce development and quality-of-life needs cannot be met by higher education or preschool through twelfth-grade (P-12) community alone.

New Jersey's colleges and universities have demonstrated ongoing commitment to partnerships between higher education and the P-12 community. The higher education institutions are engaged in hundreds of collaborative projects with preschool, elementary, and secondary students and/or staff. Many of the projects are geared toward general academic enrichment, particularly in science and math. Others deal with teacher/staff professional development, career exploration, and a variety of subject-specific areas. Some projects are geared toward addressing the needs of the general population, while others are aimed specifically at disadvantaged students.

In an effort growing out of the *Abbott v. Burke* Supreme Court decision, the Commission has worked with state government, the colleges and universities, and the P-12 community to establish high-quality preschool programs for all three- and four-year-olds in the state's 30 Abbott school districts. By preparing hundreds of educators for the newly required preschool to grade three teaching certificate, our colleges and universities are helping to ensure preschool students have the advantage of an early start on learning – the very foundation upon which equal opportunity is built.

In FY 2002, the Commission launched new state-level programs to help enhance teacher training and professional development. A total of \$7 million in grants was distributed among 21 institutions with teacher preparation programs to enhance quality and increase capacity, and \$3 million was awarded in competitive grants to build on programs that had demonstrated success in improving student achievement. Those grants have already demonstrated results, improving overall programs, increasing faculty in areas of extreme shortage, and enrolling additional students who will be prepared to teach effectively in those areas.

### *Campus Highlight*

#### ***The P-12 Connection: Montclair's Urban Teaching Academy***

With funding assistance provided through the Commission on Higher Education's Teacher Effectiveness Grant program, Montclair State University has developed an Urban Teaching Academy (UTA) as a special strand in their Teacher Education Program. The academy is designed to prepare and support teaching candidates who make a commitment to teaching in urban schools.

The UTA is open to undergraduate students at Montclair State University who have been admitted to the Teacher Education Program. The UTA funds all classes taken with the academy as well as a stipend for the Summer Community Internship.

The success of urban schools is highly dependent on having well-prepared teachers in the classrooms, and the academy's goal is to enrich Montclair's ability to produce well-prepared teachers for schools in Newark and Paterson.

## VIII. CLOSING COMMENTS

The sixth annual systemwide accountability report affords valuable information about higher education for the public, the higher education community, and the new Administration and Legislature. Like those before it, the report presents information regarding the role and status of higher education in New Jersey. It also highlights the strengths of the system and presents fundamental data regarding unmet needs and challenges.

This year the report will also inform the long-range planning process. The data presented herein will assist the higher education community as it identifies and analyzes key issues, sets clear objectives, and establishes action plans and performance measures to assess progress.

The issue of accountability is likely to be among those addressed as the state sets a clear direction for higher education for the remainder of the decade. It will be important to examine and strengthen higher education's existing accountability framework to stimulate improvement and assist in achieving a statewide vision.