



Florida Can Use Several Strategies to Encourage Students to Enroll in Areas of Critical Need

at a glance

Florida is projected to face critical shortages of teachers and nurses in coming years. Different strategies will be needed to increase the number of students going into teacher preparation and nursing programs.

Florida and other states use scholarships and loan forgiveness programs to encourage students to enroll in teacher preparation and nursing programs, particularly in areas of high need. While helpful, these programs have limited resources and address only part of the training challenges facing the state.

Only 56% of the students graduating from Florida's teacher preparation programs become classroom teachers in Florida public schools. The teaching loan forgiveness program offers relatively small awards that provide limited incentives for students to become classroom teachers. The nursing student loan forgiveness program offers substantially larger awards, but is used primarily to attract and retain nurses to underserved areas rather than to increase the number of students going into nursing. This is because student demand for nursing programs exceeds available slots at both the community college and university levels, and expanding these programs is hampered by shortages of instructors.

Even if strategies to increase nursing and teacher preparation graduates are successful, demand may continue to exceed supply unless steps are taken to reduce high turnover in these professions. To resolve these problems, school districts, hospitals and other employers may need to implement strategies to better retain their employees.

Scope

As requested by the Florida Legislature, this report examines strategies that could encourage post-secondary education students to pursue careers in areas of critical need. The report focuses on two areas generally considered to be of critical need throughout Florida: nursing and teaching.

Florida Has Critical Needs for Nurses and Teachers

Studies by several entities show that Florida is facing a critical statewide need for trained teachers and nurses.¹ Information technology is another identified area of critical statewide need, but these jobs are not tied to a specific higher education degree. Some regions within the state also have an identified critical need for engineers, but this need does not exist statewide.

Florida needs more teachers

Florida's demand for new teachers is increasing, especially in the areas of high school math and science and exceptional student education.

¹ These studies are conducted by Regional Workforce Councils, which collect information on local workforce needs; the Department of Education, which collects information on the need for teachers and other school district personnel; and the Board of Nursing within the Department of Health; Florida Nursing Center, and Florida Hospital Association, all of which collect information on the need for nurses.

As shown in Exhibit 1, about 20,000 teaching positions will need to be filled annually over the next 15 years. In 2006-07, when districts must meet classroom size standards by school, more than 29,000 new teachers will be needed.

The demand for new teachers stems from a growing student population, a loss of current teachers primarily due to retirements and personal reasons, and the class size amendment. Most of the new teachers will be needed to replace teachers leaving their positions. In 2002-03, 8% of the state’s public school teachers voluntarily left their positions, with 1.9% retiring and 6.1% resigning. However, in 2006-07, about half of the new teacher positions will be due to the constitutional amendment limiting class size.

**Exhibit 1
Florida Needs to Fill Approximately 20,000 Teaching Positions Annually Through 2020-21¹**

Years	Projected Number of Teachers Prior Year	Number Needed to Replace Resigning Teachers	Needed Due to Enrollment Growth and Class Size Adjustment	Total Teacher Positions to Be Filled
2004-05	147,955	13,692	7,621	21,313
2005-06	155,576	14,157	5,402	19,559
2006-07	160,978	14,649	14,955 ²	29,604
2007-08	175,933	16,011	4,425	20,436
2008-09	180,358	16,413	3,277	19,690
2009-10	183,635	16,711	3,207	19,918
2010-11	186,842	17,003	3,075	20,078
2011-12	189,917	17,468	3,154	20,622
2012-13	193,071	17,725	3,485	21,210
2013-14	196,556	18,049	3,116	21,165
2014-15	199,672	18,343	3,201	21,544
2015-16	202,873	18,483	2,963	21,446
2016-17	205,836	18,759	2,580	21,339
2017-18	208,416	18,994	2,511	21,505
2018-19	210,927	19,219	2,070	21,289
2019-20	212,997	19,621	1,857	21,478
2020-21	214,854	19,788	2,007	21,795

¹Classroom teachers only. Does not include counselors, librarians or other instructional positions.

² First year that districts must meet classroom size standards by school.

Source: Florida Department of Education.

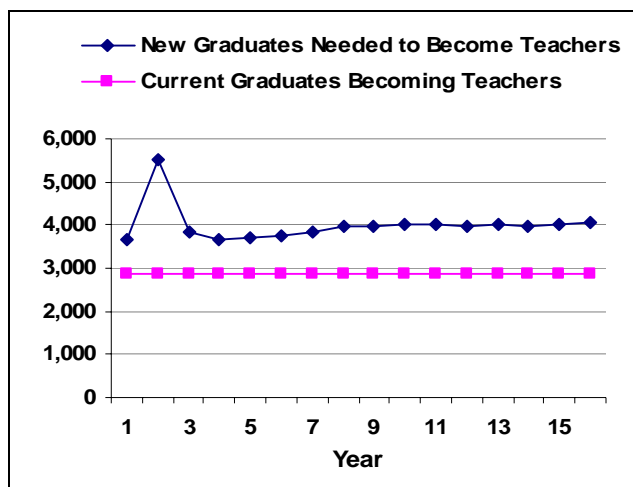
The demand for teachers will be offset partly by teachers moving in from other states, those moving between districts or coming back into the workforce, and those graduating from the state’s higher education institutions. In 2002, about 19% of the newly hired teachers in Florida were recent graduates of the state’s public and private teacher education institutions.

Not all graduates of teacher preparation programs become classroom teachers in Florida public schools. A Department of Education report indicates that in 2001-02, 5,132 students who had not previously held teaching certificates graduated from Florida teacher education institutions. However, only 56% of these graduates become classroom teachers in the fall of 2002. According to teacher education institution administrators, many students realized that they were not well suited to be teachers until their last semester when they performed their internship. These students generally finished their degrees, but went into other careers. To increase the percentage of graduates who become classroom teachers, teacher preparation institutions are now requiring students to be exposed to actual classroom situations earlier in their college careers.

If the percentage of new teachers coming from Florida’s teacher education institutions remains at 19%, between 780 and 1,200 of the new teachers school districts hire will need to be recent graduates of Florida teacher education institutions. (See Exhibit 2.) If only 56% of these graduates become classroom teachers, the state’s teacher preparation programs will need to produce between 1,560 and 2,000 more graduates each year to meet the increasing demand for teachers.² This increase could be reduced if a higher percentage of graduates take teaching jobs. See Appendix A for greater detail.

² This excludes the large increase in need for new teachers the state will experience in 2006-07 as a result of the constitutional amendment regarding classroom size. Since it takes two or more years to produce teacher preparation graduates, colleges of education cannot meet the increased need for new teachers in that year, and Florida will have to look to obtaining more teachers from out of state, alternative certification, or other strategies to increase teacher supply in that year.

**Exhibit 2
The Number of Florida Teacher Preparation Graduates That Subsequently Teach in Public Schools Will Need to Increase**



Florida needs more nurses

A similar situation exists for nurses. The Florida Nursing Center projects a need for 56,420 new nurses by 2011, with average annual openings of 8,060. About two-thirds of the new annual openings will be due to increases in demand as Florida’s population increases and grows older. The remaining one-third will be due to nurses leaving the field either due to retirement or personal reasons. The increase in demand will be partly met by nurses coming in from other states or graduating from higher education institutions. Florida allows nurses who are licensed in other states to receive their Florida licenses through an endorsement process, and approximately half of the new licenses issued each year are due to endorsement.³ In addition, during 2003-04, state higher education institutions graduated 3,800 students with bachelor’s or associate degrees in nursing.

However, the Florida Hospital Association reports nursing shortages at hospitals throughout the state. Some these shortages may be due to nurses who choose not to work in their field or who take other positions other than direct care positions, such as working for insurance companies, rather than for hospitals. The labor market for nurses

³ The endorsement process allows nurses who are licensed in other states to receive Florida licenses without retaking the national examination.

has not been studied as thoroughly as it has for teachers, and more information is needed about what types of nursing degrees are needed and where nurses chose to work.

Florida Has Scholarship and Loan Forgiveness Programs for Both Teachers and Nurses

Florida currently has scholarship and loan forgiveness programs that are designed to attract students into teacher preparation and nursing programs and retain them in critically needed teaching and nursing areas when they graduate. These programs are similar to those offered by other states. (See Appendix 1 for a description of other states’ programs.)

Although these programs are beneficial in getting participants to work in critically needed areas in the state, they may not be reaching their full potential for different reasons. In the teachers’ programs, the relatively small scholarships and loan forgiveness amounts may limit the programs’ ability to attract and retain classroom teachers. The nursing scholarship program offers substantially larger awards, but is used primarily to attract nurses to underserved areas. Increasing the supply of nurses is limited by the number of available slots in nursing education programs.

Florida has three incentive programs for future teachers

Florida currently funds three programs to encourage students to obtain degrees in education: the Minority Teacher Education Scholarship Program, the Critical Teacher Shortage Loan Forgiveness Program, and the Critical Teacher Shortage Tuition Reimbursement Program.⁴

The Minority Teacher Education Scholarship Program is designed to encourage capable minority students to become teachers. African-

⁴ In addition, the state has a fourth program, the Florida Teacher Scholarship and Forgivable Loan Program, which did not receive funds in 2004. This program is similar in design to the Critical Teacher Shortage Scholarship and Loan Forgiveness Programs, but provides forgivable loans to students while they are in teacher preparation programs instead of forgiving the student loans of individuals who are already teaching.

American, Hispanic-American, Asian-American, and Native American students of teacher education programs in Florida public or private universities are eligible to receive scholarships of up to \$4,000 per year (\$2,000 per semester). Full-time students in good academic standards can obtain these scholarships for two consecutive years. Students who do not graduate in three years or who are not employed by a Florida public school district are required to repay the loan plus 8% interest per year within 10 years of their graduation.

The Legislature appropriated about \$2.1 million for the program for Fiscal Year 2004-05. In Fiscal Year 2003-04, the program provided 927 scholarships, which were funded at the \$2,000 annual level.

The Critical Teacher Shortage Loan Forgiveness Program is designed to encourage individuals to become teachers in critical teacher shortage areas such as exceptional student education. The program repays these persons' education loans when they graduate and teach in Florida public schools.

The loan forgiveness program provides annual awards of up to \$2,500 for undergraduate loans and \$5,000 for graduate loans. It is available to teachers who have taught a full year in a Florida public or developmental research school.⁵ Teachers are eligible to receive the awards for up to two years for graduate loans or four years for undergraduate loans or up to a maximum of \$10,000.

The Critical Teacher Shortage Tuition Reimbursement Program reimburses the tuition of full-time teachers who currently teach or are preparing to teach in critical areas. To be eligible, teachers must enroll in courses leading to a master's, specialist, or doctoral degree or certification or endorsement in a critical need subject and pass the course with a minimum of 3.0 on a 4.0 scale. Teachers may receive awards for up to nine semester hours per year with a maximum of 36 hours per teacher.

Both the loan forgiveness and tuition repayment programs prorate awards based on funds appropriated and the number of eligible

applicants. As shown in Exhibit 3, appropriations to the programs have decreased over time while the number of qualified applicants has increased, resulting in lower average scholarship awards. Over the past five years, the average scholarship award fell by almost two-thirds to \$962. This decrease and uncertainty about the size of future awards can negatively affect the program's effectiveness in attracting students and teachers into to areas of critical need.

**Exhibit 3
Average Award Amounts for the Critical Teacher Shortage Loan Forgiveness Program Have Decreased Over Time**

	1998-99	2002-03
Appropriation	\$4,031,576	\$1,739,566
Recipients	1,293	1,834
Average Award	\$2,714	\$ 962

Source: Chapters 98-422 and 2002-394, *Laws of Florida*. DOE, Office of Student Financial Assistance, 2002-03 Annual Report.

Florida has two incentive programs for future nurses

Florida also offers a scholarship program and a loan forgiveness program for students enrolled in programs leading to associate, baccalaureate, or graduate degrees in nursing.

Under the Nursing Scholarship Program, students obtaining associate or baccalaureate degrees may obtain scholarships of up to \$8,000 per year for a two-year period and students obtaining graduate degrees leading to faculty or advanced registered nurse practitioner positions may obtain \$12,000 per year. Part-time students may receive prorated scholarships. The scholarships must be repaid if the students do not graduate or work 12 months for each full year of scholarship as a teacher in a school of nursing or nurse at a health care facility in a medically underserved area of the state.

Under the Nursing Student Loan Forgiveness Program, licensed nurses designated health care facilities or sites may receive up to \$4,000 a year for up to four years for their student loans. Payments are made directly to the holder of the loan and are contingent upon continued proof of employment in the designated facilities.

⁵ Awards are prorated for teachers that teach for at least half a year.

Florida statutes authorize both programs to be funded through a \$5 fee imposed on nurses who are obtaining or renewing a Florida license. According to Department of Health officials who administer the program, this fee brings in about \$450,000 a year.⁶

In 2003, concerns about trust fund dollars led the Department of Health, which administers the programs, to suspend enrollment for two years. In 2004-05, the department enrolled 153 applicants in the loan forgiveness program.

The department allocated available funds entirely to the loan forgiveness program, which primarily serves to ensure that nurses work and stay in areas where they are most needed. Department officials indicated that they are taking this step because administering the scholarship program is labor intensive due to the time needed to track recipients after they graduate and locate and collect funds from those who do not fulfill their service requirements. Using available resources entirely for the loan forgiveness program maximizes the number of nurses who receive awards.

Furthermore, other information indicates that funding scholarships would do little to increase the number of nursing students for two reasons. First, nursing schools already have more qualified applicants than they can admit, so offering scholarships to attract more applicants would have little effect. Second, many health care entities support nursing programs by providing scholarships to their students, which reduces the need for state-funded scholarships.

Options for Increasing Teacher Preparation and Nursing Students

The problems of attracting students to critically needed teaching and nursing professions are different for the two professions. For teaching, the primary challenges appear to be attracting

students into teaching programs, particularly in the areas of high school science and math and exceptional student education, and increasing the percentage of graduates of these programs who subsequently take classroom jobs in Florida's public schools. In nursing, the primary challenge is addressing the shortage of space in nursing education programs at the associate and baccalaureate levels. Consequently, different strategies will be needed to increase the number of graduates going into these two professions.

Options for attracting students to teacher preparation programs

Several options exist for attracting students to teacher preparation programs in critically needed areas. These include making a greater investment in the current loan forgiveness and scholarship program, improving access to teacher preparation programs, creating a program to encourage teacher aides to become certified teachers, and revamping teacher preparation curricula requirements.

Investing in loan forgiveness and scholarships. The current loan forgiveness and scholarship programs can be effective ways of attracting students to teacher preparation programs and encouraging graduates to take teaching jobs. However, the relatively low level of current awards limits its effectiveness.

The Legislature could make the program more effective by funding the program awards at the statutory maximum of \$10,000 per recipient. To provide awards to 1,200 students annually, the number of additional teaching positions needed to be filled through new graduates, the Legislature would need to provide an additional \$12 million in funding. This could help increase the percentage of graduates who take classroom teaching jobs, as these persons would receive loan forgiveness if they stayed in the classroom for a minimum of two years in an area of high need, such as math, science, or exceptional student education.

⁶ Hospitals, birth centers, and nursing homes that employ nurses participating in the loan forgiveness program are to provide a 100% match for the state funds used for their employees. However, state-operated medical and health care centers, public schools, county health departments, teaching hospitals, and specialty hospitals for children are exempt from the matching requirement, and program beneficiaries generally work for these health care providers.

The Legislature also could make teachers with undergraduate loans eligible for the awards for a six-year period, which could be forgiven by teaching in a classroom for this longer period. This would cost an additional \$6 million, but would give teachers a greater incentive to continue teaching.

Improving access to teacher preparation programs. Another option to attracting more students to teacher preparation programs is to make the programs more accessible. The Florida Legislature already has taken steps to make teacher preparation training accessible to individuals who have baccalaureate degrees in areas other than education through alternative certification. Two types of alternative certification exist. The first requires school districts to provide programs to enable individuals they have already hired as teachers to receive teaching certificates. By the end of Fiscal Year 2003-04, almost 1,200 persons have completed this alternative education program. Currently, 2,281 individuals are enrolled in the program. If past trends continue, between 900 and 1,000 of these individuals should complete the program and become eligible for a teaching certificate by the end of the year.

The second program, which was created by the 2004 Legislature, allows postsecondary institutions to offer alternative teacher preparation programs to individuals who have baccalaureate degrees but have not yet been hired as teachers. To offer these programs, colleges and universities must apply to establish educator preparation institutes and alternative certification programs and receive approval from the Department of Education (DOE). Educator preparation institutes can seek to provide professional development programs to current teachers or alternative certification programs to individuals with baccalaureate degrees. As of January 2005, 10 state universities, many independent colleges and universities, and 23 community colleges have expressed an intent in applying to establish educator preparation institutes. The approval process for these applications has not yet begun.

A related option, which would provide access to teacher preparation programs to individuals without college degrees, would be to offer

teacher preparation baccalaureate degree programs on community college campuses. The state's community college system is designed to be within easy driving distance of every community in the state. By partnering with four-year institutions or offering four-year teacher preparation programs in areas of critical need, community colleges could attract more students, particularly non-traditional students, into teacher preparation programs. The advantages, disadvantages, and costs of offering baccalaureate degrees in critically needed teacher preparation and other baccalaureate programs on community college campuses will be discussed in greater detail in an upcoming OPPAGA report.

Encouraging teaching aides to become certified teachers. Several school districts have initiated programs to encourage their teaching aides to become certified teachers. The districts have begun these programs for two reasons. First, they believe that aides who already live in their communities will continue to work there when they become teachers. Second, the districts believe that aides, who are already familiar with the classroom environment will be less likely than recent college graduates to either forego teaching careers or leave the profession within a few years of becoming teachers.

The state could build on district efforts by expanding the loan forgiveness and scholarship to include teacher aides who are seeking to become certified teachers in critical need areas. Since aides may need more coursework than teachers to obtain the desired certification, expanding the eligibility period beyond the current four-year limit would allow these persons to use the program for more courses or to attend school on a part-time basis.

In addition, the state could create a mechanism to pay aides during their required teaching internships. Currently most internships are unpaid, full-time work. This makes it difficult for many aides to become interns because they would need to quit their jobs and perhaps obtain nighttime employment in order to support themselves and their families during the internship period. Creating a program to pay teacher aides their current salary while they are serving as teaching interns would require

approximately \$12.5 million in funding, assuming that 5% of teacher aides participate.⁷

Reforming teacher preparation curriculum requirements. According to DOE data, the number of students who are completing teacher preparation programs in Florida's public universities has declined in recent years. The number of graduates of the state's public teacher preparation programs has fallen from a high of about 4,900 per year in 1998-99 to about 4,250 in 2001-02, a decline of about 8%.

Education experts attribute these trends in part to current teacher education curriculum requirements, which during the same time period have become more restrictive.⁸ For example, under the current administrative rules, students who wish to become teachers must take 45 hours of general education classes instead of the 36 hours normally required for other undergraduate degrees. Revising these rules to give students more flexibility while still ensuring that they obtain the skills and knowledge needed to succeed in the classroom may make teacher preparation programs less daunting to prospective students.

The Legislature could direct DOE to work with universities to examine current teacher preparation curriculum requirements. This study should determine whether curriculum changes could be made to attract more students to teacher training programs, make it easier for students to complete the programs in a timely manner, and better encourage students to subsequently take classroom teaching jobs.

⁷ The average annual salaries districts pay teacher aides in Florida range from \$9,896 to \$21,010, with an average of \$14,438. With benefits, the compensation a teacher aide would lose during an internship would be approximately \$9,000. Approximately 28,000 teacher aides currently work for Florida public schools. If 5% of them pursued a teaching certificate, the cost of providing them compensation during their internship would be about \$12.5 million annually. The actual proportion of aides who would participate in such a program is unknown.

⁸ The rules for students in elementary teacher preparation programs were made more restrictive in 1999, while the rules for secondary teacher preparation program were made more restrictive in 2001.

Options for increasing the number of nursing students

Expanding the capacity of nursing programs. Currently, the state's nursing education programs do not have sufficient capacity to serve all qualified students seeking admission to them. Although universities and community colleges have worked with local hospitals to obtain faculty and other support to increase the capacity of their nursing programs, their ability to handle the demand for nursing degrees is constrained. At the university level, the bachelor degree nursing programs turned away 1,884 qualified applicants in 2002-03. At the community college level, informal survey conducted by the Department of Education indicates that about 2,900 more qualified students applied for entry into community college associate degree nursing programs than the colleges could accept.

Universities and community colleges are seeking to increase the number of nursing students they can serve. The Board of Governors of the State University System has requested \$10.1 million in additional funding for nursing programs for Fiscal Year 2005-06, which the nursing schools estimate will enable them to serve 668 additional students. In addition, 16 community colleges are requesting Jobs for Florida grant funds to expand and improve their nursing programs. These institutions have requested \$8,084,422 in new funding to serve 643 new students in associate degree nursing programs.⁹

The Legislature could grant these funding requests and appropriate funds to state universities and community colleges to use for their nursing programs. Or it could create a trust fund to be used for grants for which nursing schools could apply and use to expand their programs. Under the grant option, nursing schools should be required to project the performance outcomes they will be able to achieve if they obtain the grant.

⁹ Five community colleges' requests covered more than one health care associate program; therefore, a portion of their funding request would be used to produce other health care professionals such as respiratory therapists.

Providing scholarships or loan forgiveness awards to allow nurses to obtain advanced degrees and become nursing instructors. A primary challenge facing both universities and community colleges in expanding their nursing programs is a nationwide shortage of nurses with advanced degrees who can serve as nursing instructors. These persons are highly demanded by health care providers, and the shortage drives up their salary requirements.

To address this problem, the Legislature could target the nursing scholarship or loan forgiveness programs toward individuals who are obtaining master's or doctoral degrees in nursing and agree to become to already are nursing instructors. This could be done by allocating a portion of the program's current scholarships to such persons, or funding additional slots reserved for persons seeking or having advanced nursing degrees. Supporting 100 students or nursing instructors at the current award level of \$12,000 per year would require \$1.2 million in the first year and \$2.4 million in subsequent years.

Making better use of technology. Another challenge in increasing the capacity of nurse education programs is lack of clinical space where students can obtain the practical training they need to become licensed nurses. Currently, the Florida Board of Nursing requires nursing programs to provide nursing students a certain number of hours or training in a clinical setting such as a hospital. However, the ability of hospitals and other health care facilities to provide these clinical slots is limited. Nursing experts believe that making greater use of technology that simulates the practical situations nurses encounter could safely substitute for some of the current clinical training requirements. Although this technology is expensive, costing from \$35,000 to \$100,000 per human simulator, it would allow more efficient use of limited clinical space. The Legislature could direct the Board of Nursing to work with schools of nursing to determine the feasibility and cost-effectiveness of substituting technology-assisted simulations for some of the

current clinical training requirements. This could be done with existing resources.

Florida Also Needs Strategies for Retaining Existing Nurses and Teachers

Encouraging more students to become teachers and nurses will not resolve Florida's critical need for teachers and nurses if attrition rates for individuals in the two professions remain high. DOE data indicate that about 30% of Florida's teachers leave their positions when they are between 20 and 30 years old, but the reasons for their departure are uncertain. Limited information is available on the turnover rate of nurses in all clinical settings. A Florida Hospital Association survey of hospitals indicates that 10.6% of their nurses left their positions in 2002. If these turnover rates persist, simply increasing the supply of nursing and teacher preparation graduates may do little to alleviate the critical need for these professionals.

School districts and health care organizations are primarily responsible for developing strategies to retain their employees. However the state could assist by studying the reasons teachers and nurses leave their positions. For example, the Department of Education could survey a sample of teachers leaving their positions to obtain more detailed data as to the reason for their departure. The Florida Center for Nursing has proposed a similar survey of nurses as part of the re-licensure process, but needs more resources to conduct and analyze such a survey. One possible source of the needed resources could be a surcharge on nursing licensure fees.

Summary of Options

The table in Exhibit 4 presents the options the Legislature has for creating additional incentives to encourage students to become teachers or nurses.

Exhibit 4

Several Options Exist to Increase the Number of Students Going into Teacher Preparation and Nursing Programs

Incentive	Cost	Advantage
Incentives for teachers		
Increase funds for the critical loan forgiveness program to the statutory maximum	\$12,000,000	Could increase the effectiveness of the incentive
Increase the length of time teachers in the critical teacher shortage program are eligible for loan forgiveness awards (assumes maximum award)	\$6,000,000	Could encourage teachers to remain in the field for a longer period of time
Make aides eligible for critical teacher scholarships	Can be done within the appropriation for the scholarship	Aides who become teachers may stay longer in the classroom.
Provide aides with their salaries and benefits during their internships	\$12,500,000	Aides who become teachers may stay longer in the classroom.
Increase access to teaching degrees by offering them on community college campuses	Varies according to community college and the institution granting the degree	Could help place-bound students to obtain teaching degrees
Reexamine the rules for teacher education curriculum	Can be done with existing resources	A more flexible curriculum could encourage more students to enter teacher preparation programs.
Incentives for Nurses		
Expand university and community college nursing programs	\$18,200,000	Will allow for the admittance of 1,311 more qualified students into AA and BA nursing programs
Provide scholarships or loan forgiveness awards to allow nurses to obtain advanced degrees and become nursing instructors	\$1,200,000 initially and \$2,400,000 in subsequent years	Will provide 100 nurses with \$12,000 for two years
Making better use of technology by substituting simulations for some required clinical experience	A feasibility study can be done within existing resources. Human simulators cost between \$35,000 and \$100,000.	Could free up available clinical space and allow it to service more students

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Appendix A

Projections of New Graduates of Teacher Education Programs Needed to Meet Future Demand

The Department of Education has estimated the number of teacher positions school districts will need to fill during the next 15 years. This table shows the number of positions that will need to be filled with recent graduates of Florida teacher preparation programs if the past ratio of 19% of newly hired teachers continue to be recent graduates of public and private Florida teacher preparation programs. It also shows the increase in the number of new graduates that will be needed if only 56% of them become classroom teachers in Florida public schools.

Year	Total Teacher Positions to Be Filled	Total to Be Filled with New Graduates (18.68% of Total to be Filled)	Increase in New Graduates to Be Hired (Prior Column Less Current New Hires)	Increase in New Graduates Needed (Prior Column Divided by 56%)
2005-06	19,559	3,654	779	1,391
2006-07	29,604	5,530	2,655	4,741
2007-08	20,436	3,817	942	1,682
2008-09	19,690	3,678	803	1,434
2009-10	19,918	3,721	846	1,511
2010-11	20,078	3,751	876	1,564
2011-12	20,622	3,852	977	1,745
2012-13	21,210	3,962	1,087	1,941
2013-14	21,165	3,954	1,079	1,927
2014-15	21,544	4,024	1,149	2,052
2015-16	21,446	4,006	1,131	2,020
2016-17	21,339	3,986	1,111	1,984
2017-18	21,505	4,017	1,142	2,039
2018-19	21,289	3,977	1,102	1,968
2019-20	21,478	4,012	1,137	2,030
2020-21	21,795	4,071	1,196	2,136

Source: OPPAGA analysis of DOE projections.

Appendix B

Other States Use Scholarships and Loan Forgiveness Programs to Respond to Workforce Needs

Like Florida, many other states use scholarships and loan forgiveness programs to encourage students to enter areas of critical need. To compare how these states structure these programs to Florida's programs, we contacted other large or southern states or states identified as having innovative approaches.

Programs to attract teachers

Eight of these states have programs to encourage students to become teachers: Georgia, Illinois, Maryland, Mississippi, North Carolina, South Carolina, Texas, and Virginia. Four states have loan forgiveness programs. Five offer scholarships with service requirements, meaning that the student must repay the scholarship if he or she does not enter the teaching profession in the sponsoring state. Two states (North Carolina and Virginia) offer scholarships with no service requirement. North Carolina targets its scholarships to full-time teacher aides, while Virginia offers its scholarship more generally to undergraduates enrolled in K-12 teacher preparation programs.

Several states target their loan forgiveness and scholarship programs to minority or low-income students; others target the programs to students willing to enter critically needed areas, such as exceptional student education. Some state programs are primarily need-based while others are primarily merit based.

Appropriations for the programs range from approximately \$600,000 to \$7.1 million. Most states use general funds for the scholarship or loan forgiveness programs, although two use lottery proceeds and one uses interest on unclaimed property. The average scholarship or loan forgiveness amount ranges from \$1,000 to \$14,000, and the number of participants ranges from 5 to 1,000.

Most states did not report on the success of their programs. But two reported 90% retention rates, and one reported an 80%-90% rate of students going into teaching. However, one state reported that many students left the teaching field after fulfilling their service requirements.

Programs to attract nurses

Eight states have programs to encourage students to become nurses: Illinois, Kansas, Maryland, Mississippi, New York, North Carolina, Texas, and Virginia.¹⁰ Two of these states (Mississippi and North Carolina) have loan forgiveness programs, five (Illinois, Kansas, Maryland, New York, and Virginia) offer scholarships with service requirements, one (Texas) offers a scholarship with no service requirement but targets the award to students from rural areas. One state (Maryland) has a program to give in-state tuition to students from other states who agreed to practice nursing in Maryland upon graduation.

¹⁰ New York discontinued funding for its program last year.

Some states target programs to minority students, while others target student who are seeking bachelor's, master's, or doctoral degrees. As with the programs for teachers, some state programs are primarily need based while others are merit-based.

Appropriations for the programs range from approximately \$50,000 to \$3.4 million. Funding sources include general funds and nursing licensure funds. In addition, one state (Kansas) requires hospitals and other health care providers to sponsor students by providing matching funds for the scholarship and agreeing to employ the student after graduation. The amount of the scholarship or loan forgiveness award ranges from \$1,500 to \$10,000 per student, and from 5 to 1,000 students participate in the programs.