

An Overview

Louisiana is unlikely to face an imminent teacher shortage crisis unless one is created by unwise state policy changes. National projections, based on past trends, have indicated that the teacher supply will fill only two thirds of the demand by the early 1990s, but other studies suggest that the alleged teacher shortage is unsubstantiated and the marketplace already is adjusting to meet the demand.

Good data on teacher supply and demand is lacking at both the state and national levels. However, Louisiana appears only to have a shortage of qualified teachers in some school districts and in some teaching specialties.

Louisiana's teacher corps apparently is aging, retirement rates are up slightly, and the share of black and male teachers is declining. Student enrollments generally have declined, but shifts in grade-level enrollments have required changes in the mix of teacher specialties. New class size policies have had the greatest impact on teacher demand recently.

College of education enrollments and graduates appear on the rise after sharp declines in the late 1970s.

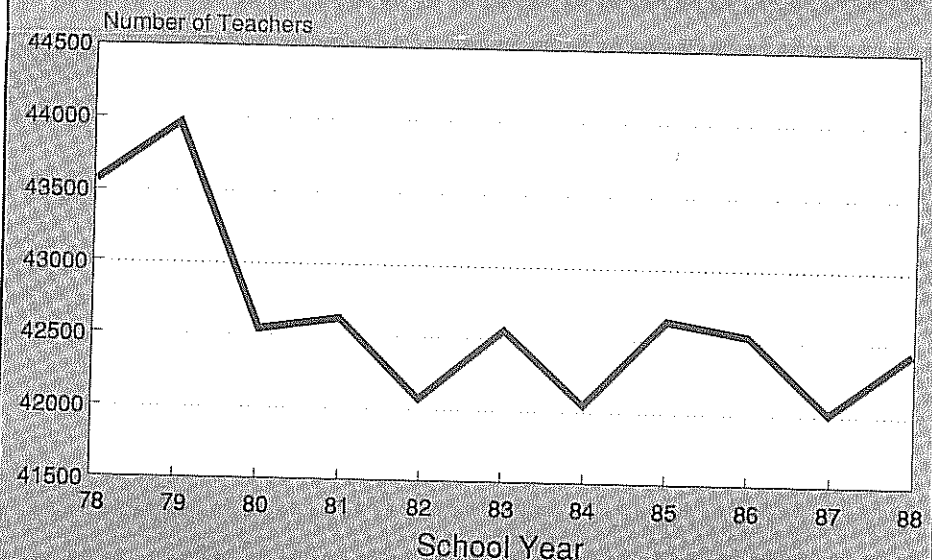
Teacher Supply: Meeting the Demand

This study assesses the extent of the state's teacher shortage problem, relying on available data and a limited PAR survey of the school districts. It also examines education policy issues affecting teacher supply and demand

and suggests actions which could help alleviate possible shortages in the future.

The number of classroom teachers in Louisiana public schools remained relatively constant from 1979-80 to

FIGURE 1
Public Classroom Teachers, 1978-1988



SOURCE: Louisiana State Department of Education.

1987-88. (See Figure 1.) While comparable data for 1988-89 is not yet available, 1,133 additional teachers (including 173 in special education) were allotted in 1988-89 in the state's Minimum Foundation Program (MFP). Total staffing requirements have been relatively stable, but fluctuations in enrollments by grade and policy changes have resulted in more significant changes in the staffing mix. Table 1 profiles the state's public school teachers for 1987-88.

Teacher Demand

The demand for new teachers is created by two factors: expansion and replacement. Expansion may result from increases in enrollment growth or policy changes. Replacement involves filling positions vacated by resignations, retirement, dismissals, sabbaticals, transfers among certification areas, and deaths.

The Louisiana State Department of Education (SDE) has not documented teacher demand, and little relevant data is available. The best measure of teacher demand in a given year--the number of new hires plus the classes merged or not taught for lack of a teacher--is not compiled.

A 1989 survey by PAR shows that new hires comprised roughly 12% of

TABLE 1
Classroom Teacher Profile,
1987-88

	Number	Percent
Total Teachers	42,433	100.0%
Level		
Elementary	28,513	67.2
Secondary	13,920	32.8
Selected Areas		
Kindergarten	2,699	6.4
Special Ed. Elem.	4,601	10.8
Special Ed. Sec.	1,716	4.0
Race & Sex		
White Male	5,521	13.0
White Female	23,372	55.1
Black Male	2,460	5.8
Black Female	10,902	25.7
Total White	28,893	68.1
Total Black	13,362	31.5
Total Male	8,021	18.9
Total Female	34,412	81.1
Experience		
Less Than 1 Year	1,833	4.3
25 Years or More	3,862	9.1

SOURCE: Louisiana State Department of Education.

the teachers employed in 1988-89 by 40 responding districts--equal to about 5,400 new hires statewide.

Expansion Factors

Student enrollment is the most obvious factor affecting teacher demand, but not the most important. Total enrollments declined in the last decade, with a slight resurgence in the mid-

1980s. Enrollments are projected to turn up for the next three years and decline again after 1991-92.

Table 2 shows how grade-level enrollments affected teacher demand in 1988-89. The drop in total enrollment masks larger decreases in grades 4-12, offset largely by increases in grades 1-3 and special education. The shift to grades 1-3 and special education further offset the drop in total teacher demand because the state funds these grades on a lower pupil/teacher ratio.

Projected teacher demand due to changes in grade-level enrollments has implications for timing policy changes. As shown in Table 3, nearly 800 more teachers will be needed in 1990-91, primarily in grades 4-8. Demand in K-3 will fall after 1991, while high school demand will rise.

State and Local Policies. Policy changes can greatly affect teacher demand. These include policies on pupil/teacher ratio, maximum class size, attendance, standards, course requirements, special education, dropouts, and local hiring above or below the state funding allotments.

The state's move to fund K-3 teachers on a 20 to one rather than a 22 to one ratio beginning in 1988-89 substantially increased teacher demand and resulted in more uncertified teachers being hired. Table 4 es-

TABLE 2
Estimated Teacher Demand Due to Enrollment Change and 20 to One Ratio in Grades K-3

	Student Enrollment ^a			Estimated Teacher Demand		
	1987-1988	1988-1989	Increase/Decrease	Due to Enrollment ^b	Due to 20 to One ^c	Net
Kindergarten	67,752	66,986	(767)	(35)	304	269
Elementary						
Grade 1-3	201,003	204,980	3,980	199	932	1,131
Grade 4-8	299,446	297,030	(2,416)	(97)	—	(97)
Secondary	205,727	200,718	(5,009)	(200)	—	(200)
Subtotal	773,928	769,714	(4,215)	(133)	1,236	1,103
Community College	2,829	3,047	218	9	—	9
Special Education						
(In self-contained classes only)	12,709	13,224	515	43	—	43
Total	789,466	785,985	(3,482)	(99)	1,236	1,155

^a As of October 1 of each year.

^b PAR calculated estimates using pupil/teacher ratios of 22 to one for grades K-3, 25 to one for grades 4-12, and 12 to one for special education.

^c Difference between teachers required at 22 to one and 20 to one ratio.

SOURCE: Louisiana Board of Regents' projections of enrollments, and Louisiana State Department of Education, Circular 825, Budget Letter, January 16, 1989.

timates the potential added demand and compares it with the enrollment-based demand for 1988-89. Not all of the estimated impact of the ratio funding change was actually felt in 1989, however, because districts were allowed to use allotted teachers in other grades. Current proposals to require that the additional teachers allotted for K-3 be hired at that level would further increase teacher demand.

A new Board of Elementary and Secondary Education (BESE) policy reducing the maximum class size from 29 to 26 will create teacher demand, but the impact will be greatest in districts such as Orleans with a large share of classes near the current 29 maximum. Other policies increasing teacher demand include expanded high school graduation requirements and the high school exit test and related remediation. The new course requirements put greater pressure on the math, science and English specialties.

Other policies under consideration which could increase teacher demand include further reduction in K-3 class size and expanding preschool.

Local districts may hire and pay from local funds more teachers than are allotted under the MFP formula. In 1988-89, the number of "over-staffed" teachers dropped by 100.

Replacement

Resignations cause the largest share of annual demand for new teachers. Based on PAR's survey, about 70% of all those leaving teaching in 1987-88 did not retire. Those resigning comprised 5.5% of the teaching staff that year. No information is collected on the reasons these teachers left. It is assumed that some dropped out to have families, some left teaching, and some took jobs in other districts, other states or private schools. For many, the hiatus may be temporary.

Retirement. Based on PAR's survey, 2.2% of the 1987-88 teaching staff of the responding districts retired

TABLE 3
Projected Public Teacher Demand Due to Enrollment Changes Alone
(Assumes 20 to One Ratio in Grades K-3 and 25 to One Ratio in Grades 4-12)

Year	Kindergarten ^a	1-3	4-8	9-12	Total
1989-90	(22)	84	189	(177)	74
1990-91	9	266	564	(62)	777
1991-92	(126)	(91)	183	116	82
1992-93	(156)	(254)	110	155	(145)
1993-94	(145) ^b	(549)	36	191	(467)
Total	(440)	(544)	1,082	223	321

a Assumes 88% of following year's public first grade enrollment are in public kindergarten.

b Rough estimate based on rate of decline in prior two years.

SOURCE: PAR calculations based on Louisiana Board of Regents' projections of enrollments.

that year. Retirees were less than a third (28%) of those leaving. Roughly one fifth (22%) of those retiring took advantage of the early retirement option (20 years at any age) with benefits computed at 2% a year, rather than waiting for the 2.5% benefit at 25 years. Use of the 20-year option has risen in the last decade but has remained fairly constant for the past four years.

Specific data on teachers who retire is not reported; however, the estimated number of annual teacher retirees has risen during the 1980s. (See Table 5.) Retirements were particularly heavy in 1979-80 and 1983-84 as teachers took advantage of benefit increases granted.

Teacher-age data is not compiled, but the teacher corps apparently has been aging steadily since 1980. Through the 1970s, the percentage of teachers with 15 or more years' experience remained stable, between 31% and 33%. However, from a low of 28.5% in 1979-80, the 15-year and

over group grew to 41.9% in 1988-89. The number eligible to retire under early (20-year) or regular retirement (25-year) grew from 19.5% in 1985-86 to 22.9% in 1988-89.

More than 10% of all teachers have met the experience requirement for regular retirement (25 years). The number who have reached the minimum age requirement of 55 years is not known.

In many districts, the share of teachers with 25 or more years' experience is considerably higher than the state average. These tend to be the smaller, rural districts with high minority enrollments. Table 6 ranks the top quartile (one fourth) of school districts by the share of their teachers with 25 or more years' experience.

Retirements will be responsible for a growing share of teacher demand in future years. Whether a bulge in retirements will occur cannot be predicted from available data.

The 20-year early retirement provision, unique in the U.S., is a strong incentive to shorten a teaching career by five years.

At present, a teacher retiring at age 65 with less than 20 years' service receives benefits on the reduced 2% formula. For late entrants or re-entrants, this is a disincentive.

Other Replacement Factors. Dismissals, particularly of tenured teachers, are an insignificant number. Resignations of untenured teachers after unsatisfactory evaluations numbered only 48 in 1987-88.

TABLE 4
Additional Grades K-3
Teacher Demand, 1988-89

Grades	Due to Enrollment	Due to 20 to One Ratio	Net
K	(35)	304	269
1-3	199	932	1,131
Total	164	1,236	1,400

SOURCE: PAR calculations based on data obtained from the Louisiana State Department of Education.

TABLE 5
Teacher Retirements^a

Fiscal Year	Number	Rate
1975-76	764	1.8%
1976-77	763	1.8
1977-78	778	1.8
1978-79	657	1.5
1979-80 ^b	1,604	3.8
1980-81	560	1.3
1981-82	461	1.1
1982-83	989	2.3
1983-84 ^b	1,742	4.1
1984-85	946	2.2
1985-86	1,352	3.2
1986-87	1,411	3.4
1987-88	1,162	2.7

a. Teacher retirements are estimated as 70% of the total retirements reported by the Teachers' Retirement System of Louisiana.

b. Prospective COLAs granted—10% to those retiring by July 1, 1980 and 7% to those retiring by September 1, 1984.

SOURCE: Teachers' Retirement System of Louisiana.

Sabbaticals numbered 834 in 1988-89, requiring 192 more replacement teachers than were needed the prior year.

Included in the retirees discussed above were an estimated 200 teachers retired with disabilities in 1987-88. The number of teachers who die in service is not reported but is estimated at less than 100 each year.

Private School Demand. Private schools accounted for 13.1% of the statewide school enrollments in 1987-88. The private schools compete with public schools for teachers, although they generally tend to pay less and have larger pupil/teacher ratios.

Teacher Supply Factors

The five primary sources of teachers are college of education graduates, re-entry of former teachers, teachers hired from out of state, transfers among districts and teaching areas, and nontraditional or temporary certifications.

Based on PAR's survey, about half (47%) of the new hires in 1988-89 were first-time teachers and the remainder (53%) had prior teaching

experience. No data or estimates are available concerning the extent to which teachers transfer among teaching areas or school districts.

Colleges of Education

Enrollments in the education programs of Louisiana public colleges and universities have risen at the undergraduate level every year for the past five years. (See Table 7.) At the graduate level, however, enrollments dropped sharply before 1986 but have since turned up slightly. The present trends indicate a steady and slowly growing supply of new teachers for the foreseeable future. Data for private colleges is not reported.

Education Graduates. The Board of Regents' two-year-old Statewide Completer System shows that 3,023 Louisiana public college students completed education programs in 1987-88. This number included 1,914 bachelor's degrees, 1,012 master's degrees, 38 doctorate degrees, 43 specialists, nine associate degrees and seven one-year certificates. Unfortunately, nothing is known about what happens to these graduates.

The SDE receives reports on education program completers (bachelor's degrees) from most Louisiana public and private colleges, providing data on the number of bachelor's degrees in education granted each year and National Teachers' Examination (NTE) results. The number of education degrees reported dropped sharply in 1980 but leveled off at around 2,000 a year from 1981 on. More importantly, the number of graduates taking and passing the NTE has risen continually, from a low of 1,041 in 1983 to at least 1,500 in 1988.

The number of education graduates had begun to fall before the NTE was first required in 1978, but its initiation marked a sharp decline in the number of initial teaching certificates issued to people trained in-state. (See Figure 2.) About 2,000 initial certificates have been granted each year in recent years.

The number of education graduates from predominantly black colleges and universities plummeted after the NTE was required. Less than 4% of the graduates from these schools took and passed the NTE in 1979. By 1987, the number of graduates from these schools was quite small, but nearly two thirds of them took the NTE and three fourths of those passed.

Out-of-State Teachers

One third of the initial teaching certificates issued since 1975 were to persons trained out of state. This source has been quite flexible, providing between 15% and 50% of the total in a given year. Louisiana was able to draw more heavily from out of state in the early 1980s to offset the initial effects of the NTE.

Respondents to PAR's survey of local systems reported 14% of new hires as coming from out of state. Orleans hired 126 teachers--22% of its new hires--from out of state in 1988-89.

Re-entry

Respondents to PAR's survey indicated that 53% of all new teachers

TABLE 6
Percent of Teachers With 25 or More Years' Experience, School System in Top Quartile

School System	Percent of Teachers
St. Helena	19.7%
Iberville	16.2
DeSoto	16.2
St. James	15.3
Franklin	15.3
East Carroll	14.8
Concordia	14.6
West Baton Rouge	14.6
Madison	14.5
City of Bogalusa	14.1
Orleans	14.0
Jackson	13.9
Pointe Coupee	13.5
Caldwell	13.0
Claiborne	12.8
Natchitoches	12.4
Richland	12.4
State Average	10.1%

SOURCE: Louisiana State Department of Education.

TABLE 7
Education Enrollments in State Public College and Universities

Fall	Undergraduate	
	Total	Percent Black
1983	10,037	21.2%
1984	10,308	20.7
1985	10,955	22.4
1986	11,207	20.3
1987	11,505	20.3
1988	12,118	19.2

SOURCE: Louisiana Board of Regents.

they hired in 1988-89 had previous teaching experience. This number includes re-entrants who have not taught for a while, rehired retirees, and those hired from other districts or states. The number of those re-entering after a break in service has not been determined but apparently is a significant share of annual rehires.

A Louisiana law designed to help districts fill shortages permits retired teachers to be hired and continue drawing their retirement benefits. Rehired retirees comprised nearly 5% of new hires reported by survey respondents. Because of the state's unusually liberal retirement provisions, many retire by age 55 and some in their 40s. This provides a sizable pool of potential emergency hires.

Emergency Hires

When a certified teacher is not available, schools may fill positions with persons with temporary certificates (often used to allow a teacher to offer a course outside his or her area of certification), temporary employment permits (persons who meet certification requirements but fail one part of the NTE), one-year provisional certificates, or by hiring under the emergency provisions of BESE Circular 665.

"665" Teachers. A noncertified teacher may be hired where it is verified that advertisement and recruitment efforts have been made

and no certified teacher is available. The person must have a bachelor's degree and take the NTE at the earliest date offered. To be re-employed, the teacher must take six hours in an education program or in an area of the NTE in which the passing score was not achieved. A "665" teacher is paid on an hourly rate at the beginning level for a bachelor's degree and may not receive step increases.

The number and distribution of "665" teachers is perhaps the best available indicator of current teacher shortages. (See Table 8.) This method allows persons to be employed without any form of teaching certification in hard-to-fill positions.

Teacher Shortages

The 1,335 "665" teachers employed in 1988-89 were 3.2% of the total teaching staff. Many of these teachers taught courses in several areas; thus, 1,712 teaching areas were covered under Circular 665. (See Table 9.)

The most significant areas were elementary, special education, the

sciences, kindergarten, prekindergarten and reading. The use of "665" teachers in these areas was substantially higher than in 1987-88. Two other major areas, mathematics and health/physical education, remained about the same for the two years.

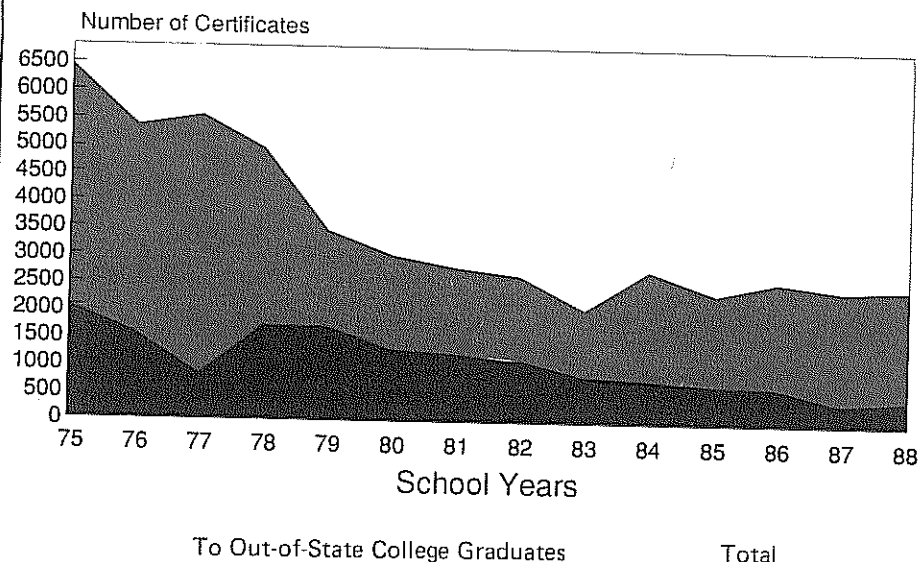
The major urban districts, except Orleans, made relatively little use of "665" teachers. In Orleans, the 227 "665" teachers were only about 5% of the total.

While the percentage of "665" teachers perhaps is the best overall measure of teacher shortages, it may not identify all the problem districts. Some districts with considerable entry-level hiring in recent years have made little use of "665" teachers. St. Martin Parish, for example, has a district policy of not hiring under Circular 665 and has not done so in spite of heavier than average hiring.

A general indicator of a district's demand for teachers is the percentage of teachers with four or fewer years of experience. The statewide average in 1988-89 was 19%, but the range was from a low of 10% to a high of 43%.

Teacher pay is another rough measure of a district's ability to compete for teachers. District average teacher salaries ranged from 74% to

FIGURE 2
Initial Teaching Certificates Issued



SOURCE: Louisiana State Department of Education.

TABLE 8
Number of "665" Teachers,
1980-81 to 1988-89

School Year	"665" Teachers
1980-81	534
1981-82	617
1982-83	834
1983-84	697
1984-85	1,268
1985-86	1,058
1986-87	766
1987-88	1,055
1988-89	1,365

SOURCE: Louisiana State Department of Education.

118% of the statewide average in 1987-88. (A problem with this measure is that teacher experience differences affect a district's average salary.)

PAR ranked all of the school districts by the three indicators discussed--use of "665" teachers, teachers with 0-4 years' experience, and average teacher salaries.

Figure 3 shows the top one fourth of the districts, using each indicator, identified as having teacher shortage problems. The eight districts identified by all three measures generally are small, rural parishes with greater than average minority enrollments. Another eight districts were identified by at least two of the three measures.

Minority Teacher Shortages

Twenty years ago, prior to desegregation, 36.1% of the state's classroom teachers were black. In 1987-88, the number of black teachers was about the same but was only 31.5% of the total.

The percentage of black male teachers fell from 9.5% to 5.8% in the same period. The percentage of black public school students rose from 39.3% of the total in 1967-68 to 42.9% in 1987-88 and is projected to continue rising.

Blacks have continued to comprise about 20% of the undergraduate education majors in Louisiana public colleges for the past six years. Of the 1,914 bachelor's degrees granted in

education by these schools, 244, or 12.7%, went to blacks.

The declining availability of black teachers nationally has led to heavy out-of-state recruiting of black Louisiana education graduates.

Male Teacher Shortage

In the past 20 years, the number of men in Louisiana classrooms has decreased by some 1,200--from 25.4% of the total in 1968 to 18.9% in 1988--the third lowest percentage of male teachers in the nation.

TABLE 9
"665" Teachers By Area,
1987-88 and 1988-89

Area	1987-1988	1988-1989
Elementary	562	702
Special Education	366	427
Sciences	114	124
Kindergarten & Prekindergarten	69	109
Reading	55	73
Math	58	58
Health & P.E.	51	57
Other Areas	206	162
Total Areas	1,481	1,712

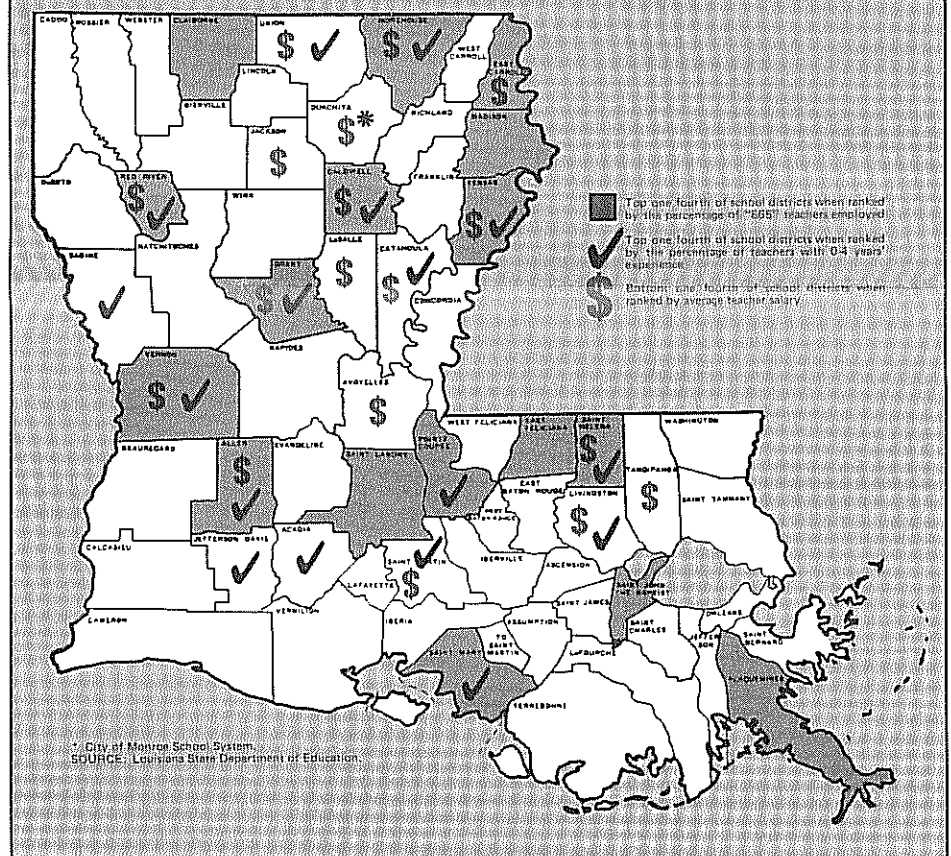
SOURCE: Louisiana State Department of Education.

The Quality Question

The cheapest, quickest and easiest approach to increase teacher supply is to lower standards for certification or hiring.

The temporary or emergency provisions discussed above offer flexibility in meeting shortages in the short run. However, numerous alternatives can be employed before a state is forced to lower standards.

FIGURE 3
Teacher Shortage Indicators



A strong argument can be made for improving supply in the long run by raising standards and elevating the teaching profession.

The quantity as well as the quality of applicants can be raised by requiring high standards for entrance to teacher training, rigorous college education programs, and high certification standards.

At the same time, competitive salaries, good working conditions, increased teacher participation in decisionmaking, and other trappings of a profession must be provided to make the career attractive.

Louisiana took a major step toward assuring teacher quality by requiring the NTE for initial certification in 1978. Entrance requirements have

been stiffened in the colleges of education, and a teacher evaluation plan now is on the drawing board.

Initially, these changes came as college of education enrollments were dropping and probably caused them to drop even further, but enrollments are slowly rebounding with what are considered to be higher quality candidates.

Recommendations

State efforts to expand teacher supply and upgrade the profession include phased-in pay raises and extended longevity pay steps; a forgivable loan program for educa-

tion majors who teach in the state; an alternative certification program for secondary teachers; and free college tuition for teachers taking courses in shortage areas. Local

districts have used aggressive recruitment efforts.

Still, more should be done to encourage growth and retention of a qualified teacher corps.

Supply

- *Encourage the better students to consider teaching careers through programs developed at the local level such as future teacher clubs, peer tutoring and counseling.*

- *Encourage private sector teacher education scholarships for local high school graduates.*

- *Amend the state's education major's loan program to provide larger loans to students willing to teach in academic and geographic areas certified by the SDE as having shortages.*

- *Experiment with shared classes, flexible hours, part-time teaching positions, child care provisions, and other accommodations to make re-entry more attractive to former teachers.*

Retention

- *Fully implement salary increases and evaluation plans in the 1988 Children First Act.*

- *Use teacher sabbaticals to target preparation for certification shortage areas. Eliminate the granting of sabbaticals purely for rest and recuperation.*

- *Upgrade the teaching profession generally by increasing the teachers' decisionmaking role in the classroom and the school, and by minimizing noninstructional duties.*

- *Establish a systematic procedure for exit interviews to produce an annual report reviewing factors affecting teacher retention.*

Training and Certification

- *Continually review the content and requirements in teacher education programs to eliminate any irrelevant courses.*

- *Streamline requirements for alternative certification through the present postbaccalaureate program for secondary teachers. Assure adequate supervision of "665" teachers prior to certification.*

- *Use 8 (g) money to pilot test various alternative certification programs for kindergarten, elementary and special education teachers to facilitate quick entry into teaching by those with non-education bachelor's degrees. Emphasize intensive short-term training with student teaching and structured internships.*

SDE Role

- *Provide in the SDE a job center or clearinghouse for teachers to assist in recruiting, placement, application files and data on prospective education graduates. Use public service spots to encourage entry and re-entry into the teaching profession.*

- *Prepare an appropriate annual teacher supply/demand report to provide data needed for prospective teacher counseling, recruitment and staffing-related policy decisions. Include data on the number and sources of new hires, resignations and retirees. Develop supply and demand data and projections for each teaching certification area. Track teacher education graduates.*

Retirement

● *Eliminate the 20-year/2% benefit retirement option at any*

age for new employees to encourage teachers to complete at least a 25-year career.

● *Encourage retirees who took early retirement to re-enter and remain in certified shortage posi-*

tions by removing the present two-year employment limit.

● *Permit a teacher retiring at age 65 with five years of earned service credit to receive benefits based on 2.5% per year.*

Conclusion

While shortages currently exist in some teaching areas and school districts, the problem has not reached crisis proportions. Furthermore, a teacher shortage crisis does not appear imminent in Louisiana unless created by changes in public policy.

Louisiana faces some disadvantages in the national teacher market but continues to compete. The supply of teachers from in-state col-

leges now appears steady and perhaps rising. Future changes in student enrollments alone will not require a significant increase in the total number of teachers, although some shifting among grade levels will be needed.

Teacher demand can be reduced by improved teacher retention and by tapping the existing pool of former teachers. A variety of actions is needed to overcome the current shortage problems in the state, but these problems appear manageable.

On the other hand, a major policy change, such as reducing the maximum class size to 15 for all students in grades K-3, could create a teacher shortage crisis and result in the hiring of many unqualified teachers.

Major shifts in education policy which would reduce teacher supply or increase teacher demand should be avoided or undertaken only with great care and planning to minimize the impact.

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