Increased enrollments combined with teacher retirements and resignations are creating a strain on the current supply of qualified teachers. As the demand for new teachers is increasing, the number of new teaching graduates is decreasing proportionally. A national teacher shortage is imminent and already exists in some locations and in some subject areas such as math and science. In Oregon, a recession has curbed the crisis, but retirements and resignations could create a shortage within the next four years. Historically, there have been four responses to a severe teacher shortage: (1) raid other schools; (2) drop standards for entering the teaching field; (3) raise the student/teacher ratio; and (4) use misassignments and emergency certification. All four have proved to be unsatisfactory. A positive step that can be taken is to talk now with the state Legislatures, the Department of Education, and the professional organizations about the need to prevent any drastic decrease in teaching quality. Districts should also look closely at hiring patterns and at training mentor teachers. Job sharing should be encouraged and recent retirees should be viewed as a major resource. The use of extracurricular support personnel and the role of technology should also be considered. (GJ)
The Coming Teacher Shortage: What Schools Can Do about It

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Is or is not a teacher shortage developing in this nation? Conflicting reports on this issue have been in the news recently.

In the pages that follow I examine the evidence and then draw conclusions about whether there will be a teacher shortage. Finally, I recommend steps school officials can take (and some they should not take) to meet any projected shortage.

The reader should keep in mind that determination of a state or national shortage in advance of its occurrence is a very imprecise science. Moreover, the practicing educator or the person actively concerned about education is as qualified (or more so) to make judgments about trends as any so-called "expert."

I came to my own conclusions about the national and Oregon situation during fall of 1984 when I and several of my colleagues at the University of Oregon began looking at some trends. Each year we try to estimate the job market related to each of the major disciplines and for elementary schools, middle schools, and high schools, so that we can advise potential candidates for our training programs about future job possibilities.

These estimates require a diverse set of statistics. We look at statewide trends like the average age of employed teachers and the number of graduates coming out of our teacher preparation programs in Oregon from each specific discipline and endorsement area. We also look at recent nationwide polls of attitudes about the profession. Finally, we examine continuing statistics on employment trends, salaries, retirement policies, and so forth.

In our fall 1984 overview, we became concerned about the conjunction of a number of these trends. Many well-qualified women who used to go into professions like nursing and teaching now have broader professional options and go elsewhere. Other factors include...
the continuing relatively low salaries for teaching and current practices in promoting early retirement. No particular trend concerning age, graduation, or professional attitudes necessarily indicated a coming problem. But when we put all those trends together, we began to be very concerned that the problem was, in fact, potentially far more serious than demographic projections for the state of Oregon at first glance suggest.

In the next section I describe patterns that we saw in the national picture—enrollment, graduation, and retirement/resignation trends. In the following section I examine those same trends in the state of Oregon. After deciding with you whether a shortage is probable for Oregon, I will then propose some possible responses.

National Trends

When we looked at national enrollment patterns, we found that the enrollment expansion of the "Baby Boom" generation, which in this nation extended from 1946 to roughly 1964, was followed by a national slump in K-12 enrollment from 1964 to 1978. Since 1978, national enrollment has increased gradually, particularly at the preschool and elementary school levels. Present and projected figures show that the gradual slope of increase will continue at least through 1987.

Howard Carroll of the National Education Association estimates that 1.4 million new public elementary and high school teaching positions will open by 1992 to meet increasing enrollments. In 1985 2.465 million teachers were employed in public schools, 12,000 more than in 1984. The biggest enrollment growth is occurring in the sunbelt states, the Rocky Mountain states, and the Deep South. Some other major sections of the country are showing stable enrollment; Oregon is one of the few with any reported decline. We are past the "valley" that followed the "Baby Boom" years. Now, children of the "Baby Boom" are entering our schools and swelling enrollment figures for the first time in more than a decade.

National figures on retirements and resignations of teachers show a significant increase. The usual attrition rate for teachers is about 6 percent a year. Currently, the national attrition rate is running at 9 percent and is rising. Also, 45 percent of today's teachers—an unusually high number—are over 50 years of age. According to the National Center for Educational Statistics, in the next eight years, the total number of teachers (currently 2.4 million) will need to grow by about 300,000 to meet combined retirement and resignation needs. More than 1.65 million will have to be newly hired.

By 1993, three out of five teachers will be people not presently teaching. That is only eight years away.

When we looked at current teacher preparation program graduation patterns, we found that the number of new teacher graduates continues to decline. This number has dropped by almost half over the past decade. Overall college enrollments are also dropping. The "valley" of students of post-"Baby Boom" years are now in college.

Let's look at these two trends together. Demand is increasing dramatically. The number of potential graduates is decreasing dramatically. We are currently in a cross-over year nationally. What do you think will happen in the next five years?

By 1993, the supply of new graduates will meet only part of the demand. We'll be about 400,000 people short.

Another way to measure this shortage: Ten years from now, going the way we are going, if schools decided to hire only new graduates with combined SAT scores of, say, 1,000, they would need every graduate available. Not just education graduates, but every college graduate available. Or if schools decided, say, to hire only the top half of the college graduating class, they would need to hire not just every teacher education graduate, but every graduate available in the country.

George Garver, superintendent of the Lavonia, Michigan, Schools, noted in a recent edition of The School Administrator that Michigan is now producing only 25 percent of the teachers who will be needed by 1990. Since preparation takes at least four years, he thinks Michigan is in trouble now. Many superintendents, state department demographers, and university education people are coming to similar conclusions.

Does this add up to a national teacher shortage? If it doesn't already, I think it will. And soon. Severe shortages exist now in some locations (for example, New York, Los Angeles, Houston, Washington, D.C., Chicago) and in some subject areas (for example, math, science, English, special education, foreign language). In 1984, more than half of Los
Angeles County teachers were on some form of emergency certification. And the district expected to add another 15,000 students in 1985. Do they have a problem? You bet!

Let me give another example. As a nation, we are not producing enough new teachers in math and science areas to meet demand. Further, the National Science Teachers Association estimates that 60,000 of the nation's 200,000 math and science teachers are not now well-qualified for what they do. Although people are teaching who are not qualified, not enough new people are available to replace them.

Between 1972 and 1982, the pool of new science and math teachers declined 65 percent and 75 percent, respectively. It is still declining. Here's part of the reason why. Last year, a new math graduate could make the following salaries:

<table>
<thead>
<tr>
<th>Starting Salaries - National Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher (Math)</td>
</tr>
<tr>
<td>$14,228</td>
</tr>
<tr>
<td>Accountant</td>
</tr>
<tr>
<td>$19,950</td>
</tr>
<tr>
<td>Systems Analyst</td>
</tr>
<tr>
<td>$28,500</td>
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</tbody>
</table>

If you were a math graduate, what job would you take?

Forty states are now reporting a shortage in some specific teaching area like math and science. Does this sound like a problem? You bet!

Oregon Trends

When my colleagues and I studied K-12 enrollment patterns for Oregon last year, we found that overall enrollment is stable, with a slight increase in the elementary grades. Our projected picture as a state looks a lot like the national picture, only flatter. The Northwest Power Planning Report, one of the leading demographic predictors for the state, shows a gradual increase in elementary grades and in some specific geographic areas in Oregon over the next ten years.

One of the few good things about Oregon's recession is that we may not reach a teacher shortage as fast as some other parts of the country. Enrollment trends alone do not predict a teacher shortage in this state.

When we looked at retirement and resignation patterns of teachers, however, we began to become concerned about a potential shortage. According to the Oregon Department of Education, currently three out of four teachers are eligible, or will be eligible, for retirement in the next four years. One of three administrators is eligible for retirement now.

How many teachers will actually take advantage of early retirement options is anyone's guess. If even half of those who are eligible retire early, however, it will outpace our current rate of new graduates very quickly.

In 1984, of approximately 26,000 teachers in Oregon, 3,290 left the profession. Of that number, 546 retired. That's a retirement rate of approximately 9 percent as opposed to a more typical 5 to 6 percent. (This increase in the retirement rate parallels the national increase.) Of concern to us is that the real retirement pool is just now developing. The average age of teachers in Oregon is in the mid-forties; more than two-thirds of our teaching force is eligible for retirement within this decade.

When we looked at graduation patterns from teacher preparation programs in Oregon, we found the following numbers:

In 1972, Oregon certified 4,000 new teachers.
In 1983, Oregon certified 1,400 new teachers.
In 1983, Oregon hired 1,300 new teachers (of that number, 43 percent were inexperienced or new teachers whereas 57 percent were experienced).

According to Richard Young of the University of Oregon Career Planning and Placement
Office, campus placement offices are now seeing increased inquiries from schools and school districts seeking new graduates. Inquiries from other states are also increasing. This is happening after a number of years with a very stable number of inquiries. He and other placement officers in the state think that Oregon schools may soon have to compete to keep Oregon graduates in Oregon. Less well-financed schools will also have to compete with schools able to offer better salaries or benefits.

Shortage -- Or No Shortage?

Do we in Oregon have a problem? Except for a few subject areas and geographic areas, not yet. We look okay for now, even though the rest of the nation does not. Are we going to have a problem? The answer depends on the weight one assigns to the various indicators. For example, Oregon has a depressed economy but it might turn around any day. Women continue to avoid education for jobs offering more money and prestige, but Oregon is a beautiful place to live and people like to come here.

Some have referred to a large "reserve pool" of certified teachers currently unemployed in Oregon, but it is anyone's guess how many of them would actually "come back" into teaching if a serious shortage developed. It's always hard to tell how many people are waiting for a job and how many are not.

Even if we conclude that we do not have a problem now, it is impossible to ignore the problem developing around us. Even if we in Oregon have enough teachers, other states will be or are coming to get them.

Do we have a problem? Maybe not now, but I think we will have a serious one and very soon.

What to Do?

How can we prepare ourselves? To begin with, let us examine the time-honored, historical responses to a severe teacher shortage.

1. We can raid others. Districts that can pay more or have a better quality of living can go to districts less competitive and raid them of their best (or, of all their) teachers. The same thing is true of state-to-state raids.

2. We can drop our standards. There has been a lot of discussion in the press in the last ten years about the need to raise standards for students entering teacher preparation programs as a means for ensuring increased quality of teaching. Historically, in this country, concern for quality has faded away in the face of any shortage; instead, we have fallen into the "warm body" syndrome--accept anyone we could get into classrooms rather than leave a room unstaffed.

3. We can raise the student/teacher ratio. When you lack sufficient teachers to maintain what research and practice tell you is a good teacher-to-student ratio, you simply increase the number of students in a room. Not enough teachers? Give the ones you've got more students.

Obviously, all these historical responses are unprofessional, short-sighted, and have nothing to do with excellence in our schools and classrooms. The people who really suffer are the children who happen to be in the classrooms during the years that school districts are trying to "make do." Other people who suffer are those who land in a teaching position without sufficient background and probably without needed staff development resources around them, good teachers who have to watch poorly prepared teachers hurt students (sometimes at higher salaries), administrators who are responsible for making poorer quality happen, school board members who are responsible for approving decreases in quality, and so forth.

In my estimation, poor responses are poor responses. Dropping our standards, raising our student-teacher ratios, adding a few more dollars to entice a teacher out of one job to another one--solutions like these do not help education and do not make excellence in education a goal very easy to attain. It would be ironic and sad if all of us who have devoted our lives to excellence in our schools should become the ones responsible for implementing the road back to poor education.

There is another poor response I would put in this category. There has recently been considerable press about education's "dirty little secret" -- use of misassignments and emergency certifications to cover needed classroom areas. Mary Hatwood-Futrell, Al
Shanker, and Emily Feistretzer have all lambasted states for dramatically increasing use of misassignments of teachers to classrooms they are not qualified to manage.

The National Education Association recently estimated that more than 104,000 teachers currently teach full-time outside their field, that another 57,000 teach three-quarters time outside their field, and that an unknown, but substantially higher, number teach from one to three classes outside their field. The Oregon Teacher Standards and Practices Commission recently reported a three-fold annual increase in misassigned teachers in Oregon.

Misassignments are another way to get around shortage problems. Again, I can't think they have anything to do with ensuring excellence in our classrooms.

Some Positive Steps

What are some positive things that we can do to prepare for a potential teacher shortage? I think the first thing we have to look at seriously, whether we are school board members, superintendents, principals, or teachers, is what the bottom line is for our school, our district. We can try to simply weather the storm with whatever means come to hand as I have been describing. Or we can try to maintain some of the forward strides made during the last few years in improving the effectiveness of schools.

If we choose the latter course, then I think we have to look at resources we have now and begin to plan for the resources we may need in the future. One of the first things to look at in a school or district is the expertise already resident there. Each individual school and district has resident expertise in its senior staff right now, able to provide increased staff assistance to new, perhaps inadequately prepared teachers.

Colleges of education in this state also need to work with all educators to find ways to provide a "safety net of support" behind those people who become our new teachers in the coming years. Neither already practicing teachers nor our students should suffer unnecessarily while people learn their new teaching craft.

The first thing the state can do is to look now at the preceding trends. We need to begin to talk now with the Legislature, the Department of Education, and the professional organizations about how we can band together to prevent any traumatic decrease in teaching quality. This is not a time for us to be arguing among ourselves. It is not time for any part of education to be lowering standards as a way to solve our problems.

At the district level, our school boards, superintendents, and district staff need to look closely at hiring patterns and at the kinds of staff assistance and expertise available for training senior teachers to work as mentor teachers. Districts should also prepare to assist administrators in managing teachers who may be coming in with a lower level of overall competence. In his presentation "Managing the Incompetent Teacher" at last year's OSSC Annual Breakfast, Barry Groves gave an excellent set of skills that will become even more critical in coming years for administrators, teachers, and other staff already in place in schools.

Superintendents and school boards may want to look at personnel policies and hiring policies anew in terms of not simply allowing job sharing, but of encouraging those practices. By utilizing those who will work some hours for us, we may be able to reduce reliance on undertrained people.

One of the major resources that will be available to us in staffing our classrooms is the large numbers recently retired. Although most recent retirees may not be interested in working full-time or even half-time at a job, they may be willing to serve as expert assistants for a few periods a day or as backup advisors to beginning teachers. In this day of computerization, the use of part-time people to regularly fill teaching assignments, which used to be an overwhelming scheduling problem, is now a more manageable activity.

Indeed, one of the other things that districts and schools may wish to look at in great depth is what role computers and other
technologies can play in providing support to the teacher in the classroom. We may be looking at a different classroom in the future, one with some students at home or at remote sites, monitored by an aide or provided with 24-hour help. Now is the time to explore potential changes.

If you are one of the teachers who has been with your district five or more years, you can expect to be one of the few senior people available in your schools when shortages occur. Not only will you probably have an extra staff load and an extra classroom teaching load, but you may also be the person who everyone else comes to for advice-- on everything from working with severely handicapped students, to behavioral problems, to that gifted fourth grader who is no longer turning in reading assignments. You may want to increase your training skills for what may be a new role of mentoring -- whether you ever thought of yourself as a mentor or not.

Perhaps we should begin to rethink the role that teachers have traditionally played in supporting extracurricular activities in schools. If it is absolutely critical that all people with good teaching skills are actually teaching in a classroom, it may be high time for us to consider assignments of other types of activities to other support people. This is another possible way to reduce any need to hire untrained or half-trained people.

Conclusion

I have presented just a few ideas about how we can begin to think about and prepare for the potential problem of a shortage of classroom teachers. Of course, different observers may draw different conclusions from the statistics presented on these pages. But I am sufficiently concerned about the coming shortage that I have sought to share these data with teachers, school officials, and policy makers throughout the state, as well as those candidates who are now in our state's teacher preparation programs. I encourage all these individuals to carefully consider what actions may be appropriate for them and their institutions to take.

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Administrators of Oregon School Study Council member districts who wish to know their own enrollment trends may obtain an enrollment projection from the Council. For more information, see the article in Council News.