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ABSTRACT
          Issue Scanning, sometimes called Environmental Scanning, is
used in many business, government, educational, and nonprofit organizations.
The technique is supposed to monitor the "pulse" of the external environment.
The scanning process should lessen the randomness of the information used in
decision making, and it should alert managers to trends and issues that may
affect the organization. Each scanning process is tailored to the needs of
the organization and expectations of management. This paper describes Issue
Scanning as it is practiced at the Illinois State Board of Education. Staff
members prepare a scanning report every 3 or 4 weeks for use by agency
management and State Board members. Three professionals conduct Issue
Scanning at the Illinois State Board of Education. A sample Issue Scan is
presented. (Contains a list of 66 mailing list services, newsgroups, Web
sites, and print media sources.) (SLD)

ISSUE SCANNING:
FINDING THE FUTURE...
MAYBE

by
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Research and Policy Division
Illinois State Board of Education

presented for
1999 Annual Meeting
of the
American Evaluatin Association
Orlando, Florida

"I'm always interested in the future. I plan to spend the rest
of my life there." (George Burns)

INTRODUCTION AND DEFINITIONS

Issue Scanning, sometimes called Environmental Scanning, is used in many business,
government, educational, and non-profit organizations. The technique is supposed to
monitor the "pulse" of the external environment. The scanning process should lessen the
randomness of information used in decision-making; it should alert managers to trends
and issues that may affect the organization. In essence, it is a surprise reduction tool that
is used to focus attention. No system will be able to eliminate uncertainty, but scanning
provides an early indication of possibly important future developments to gain as much
lead time as possible.

Each scanning process is tailored to the needs of the organization and expectations of
management. A university scanning effort will be different than an automobile plant or a
grant issuing foundation. Our agency (the Illinois State Board of Education) is a
government education agency. Our scanning process will have a different texture than
some others, but many factors in common.

In order to conduct Issue Scanning, some elements are necessary. You must have people to prepare scans (search sources, identify issues, write reports), a clear understanding of the definition of scanning, sources of information, end users of the scans, and an administrative link from the people who produce the scans to the users and back again.

Issue Scanning has been in place at the Illinois State Board of Education for a little over one year. Staff prepares a scanning report every three or four weeks for use by agency upper management and the State Board members. Our definition of Issue Scanning is rather simple. We identify and briefly explain topics, issues, and events that will be of interest to our decision makers in the next few months.

Issue Scanning is NOT policy development, but can be a tool of policy. We try to avoid (usually successfully) making policy recommendations, even though some recommendations are strongly implied given the issue itself and past policies adopted by the State Board. An issue scan should lead to policy considerations. One potential result of an issue scan is for upper management to direct a policy study be undertaken.

Issue Scanning is NOT futures research, although it is a not-too-distant cousin. Our focus is in the near future, within one year. For state agencies, long range planning should be (at the most) three to five years. Issue Scanning is short range.

Issue Scanning is NOT strategic planning, but it is closely related. Strategic planners should use the results of scans, along with other inputs. Generally, strategic planners approach a topic that has already been declared important. Time and events often erode the importance of issues that show up in scans.

Issue Scanning is NOT research, but does have a very marked research flavor at our agency. Administratively, the scanning process is located within the Research and Policy Division at the State Board of Education. Most of the scanning team is involved in research activities and has past training in research and statistics. That translates into an emphasis on empirical evidence and less stress on such things as editorials or prescriptive statements by fringe (or even mainstream) educational theorists.

Thus, for us, issue scanning is a hybrid creature with roots in several areas. We are comfortable with this ambiguity. Perhaps, ambiguity is one of the necessities of Issue Scanning?

STRUCTURE AND PROCEDURES

At our agency, three professionals conduct Issue Scanning, each assigned one-quarter time to this effort. The techniques we use are on-line literature review, hard copy literature review, and writings by experts. We have not yet used expert panels, but may in the future. We examine our sources, collect scans, discuss the importance and acceptance of each issue among ourselves (jury the submissions), and write the report.

The chair of the group rotates among the professionals. Duties of the chair include administrative details of arranging meetings, collecting scans from the team, formatting the final report, and delivering the report to the division administrator.

Our criteria for selection were somewhat fluid at first. Criteria evolved with practice and discussion, and now include 1) immediacy, 2) impact potential, and 3) frequency (number of instances). The topic must be an issue of some importance, something we feel will become more important in the near future and that our clients SHOULD know. Generally, items in major news stories are not included – our upper management will get those before they read our report. Normally news items do not center on an issue, but more generally focus on a unique event. Our emphasis is on issues, so a news item would have to include information about a specific issue for us to consider inclusion.

News items from other states are welcome, especially if some topic relates to something currently being discussed in Illinois. We have even included the way Europeans address some of the same issues being addressed in our state.

A brief list of some of some reports include:
   Federal Tax Breaks for Good Teachers
   Online Course and Degree Programs
   Brain Scan May Diagnose Attention Deficit Disorder
   Advertising in Schools—the Cola Wars
   Evaluation of Whole School Reform Models: The Few that Work
   NRA Training in Elementary School
   A Warranty on Graduates
   Another Study Supports Music-Achievement Link
   School Start Times and Teen Sleep Research

Each issue scan must include an "Implications" section. Sometimes this section provides suggestions for action; sometimes simply the possible (not always evident) ramifications. Each single issue scan is limited to one printed page. Occasionally, we have included a table on a second page. When more information is requested about an issue, it then becomes the focus of a policy paper or position paper. A set of four to six scans make one report.

In addition to scans, our reports include "Critical Events" and "Issue Updates." These are generally short, sometimes only one or two paragraphs long. They do not include implications, and can be an update of a past scan; events that have not yet developed into a "full" scan; or even on occasion something we think upper management will appreciate, not necessary need to know.

OUR CLIENTS

Our primary clients are upper management and member of the (Governor appointed) State Board of Education. Scanning Reports are disseminated through the Board Packet, a document prepared for each Board meeting. It available to all managers and employees of the agency, as well as external interest groups and associations. Thus, the secondary clients of our reports include middle management, professionals involved in agency and program planning, research specialists, etc.

In addition, we are currently planning to put the Scanning Reports on the agency web page. This would make the reports available to a wider audience, including anyone who has the capability and desire to access our Internet information.

BACKGROUND

Issue Scanning grew out of the recommendations of a project team at our agency. At one time, the agency made use of "project teams," a collection of staff and external people from a variety of organizational units, established for a short period of time to solve a specific problem. One project team addressed professional development and strategic planning. In the past, the agency had a strategic planning unit. While that unit is no longer, the function of strategic planning continues in several administrative units across the agency. Individual sections had normally handled Professional development in the agency; no coordinated, unified professional development activities had existed.

An Issues Scanning Project Team comprised of ISBE staff and external members completed its report and recommendations in the fall of 1996. The challenge for this team was to design a process by which events and trends from the political, social, technological, economic and educational environments that may impact Illinois education could systematically be identified.

An initial attempt was made to implement an Issues Scanning process at the agency. The attempt was hampered by administrative changes. After a change of administration, a second attempt was made. That second attempt has been producing reports for over a year.

DIFFERENT THAN FUTURES RESEARCH

Issue Scanning is different than futures research, even though the two have some elements in common. Issue Scanning can be one technique in futures research. However, Issue Scanning seldom uses techniques such as scenario building; trend impact; time series studies; simulations; or gaming tools. Some techniques of futures research such as the Delphi surveys or Q-Sort methodology have a role in Issue Scanning, but generally to validate or establish priorities of issues.

Issue Scanning is focused on the short term; most futures research is oriented to the long term. The issues being discussed are easily recognized as important; futures research presents concepts that will prove to be important. Issue Scanning briefly identifies issues; futures research tries to unfold possibilities of importance of issues.

The purpose of Issue Scanning is to produce value for organizational managers. In one sense, the determination of value is easier for Issues Scanning than for futures research. A futurist makes statements about the long term future trends, then leaves. The Issue Scanner is still around in four to six months, when the accuracy of the prediction can be verified.

WAYS TO IMPROVE

Any operation can be improved, and our effort with Issues Scanning presents several opportunities for refinement. We could use time for reflection. We need to tie related issues into themes; see what common threads exist among our reports. Issues come in clusters, not individual episodes.

For example, a series of issues cluster around the concept of teacher qualifications. There has always been an intuitive sense that better teachers have students who score higher on achievement tests. We reported some studies that provided empirical evidence for this. The education, experience, and licensing score of teachers do indeed relate to achievement of their students. (Implications include pre-service training and certification testing, as well as in-service training.) Another set of issues about teacher qualifications center on certification. Sub-issues of certification include alternative certification, national certification (especially through the National Board for Professional Teaching Standards), and a uniform teacher license system. There is also the issue of the desire for more qualified teachers colliding with the growing need for *more* teachers. Can a society increase the number of teachers at the same time it attempts to produce higher qualifications?

An additional need of the scanning system is to create and maintain a data base file of issues (including a searchable feature of keywords and topics). Even though our effort is

about a year old, we are already feeling disjointed. We produce a report and then proceed to the next report.

Another opportunity for improvement can be classified as presentation of alternatives. We could use alternative views among the people preparing the reports. Having more scanners is only one way to increase alternative views; we could also use people to simply provide ideas but not necessarily write a scan. In addition, we would welcome alternative approaches to scanning. We have not developed a priority lists of issues through something like a Q-Sort or Delphi technique.

A support staff assigned to the effort for 25-30% FTE would be helpful. Some of the duties of this position would include maintaining all reports on the network; updating a data base file of issues; preparing reports that have consistent format; etc.

SOURCES OF INFORMATION

Any good scanning effort has multiple sources of information—people, electronic, print, etc. along with our judgements of value. Some sources we check daily; some weekly; some less frequently. Some sources are issue specific—we only review the source for a single issue. Listed below are sources we use to collect scans, references we used to understand what scanning could be, and some things that did not provide as much useful information as we first thought.

Mailing List Services

Evaltalk. The mailing list service of the American Evaluation Association. EVALTALK@UA1VM.UA.EDU

AERA. All Divisions maintain a mailing list. Division H's list is: aera-h@ASU.EDU

Ed.Net Briefs is a free weekly education newsletter sent to subscribers via e-mail each Monday, September-June. (http://www.edbriefs.com)

Newsgroups
[Annotated list of newsgroups examined by the authors. Other searches and news servers may provide a different list.]

    clari.news.education   (GOOD ONE)
    clari.news.education.releases   (GOOD ONE, NOT AS GOOD AS ABOVE)
    comp.society.futures   (one visit; not very rewarding)
    alt.society.futures   (a bit crazy)
    alt.extropians   (nothing there)
    sci.life-extension   (people who think they have found a cure for death)
    comp.ai.alife   (not really sure; artificial intelligence)
    alt.future.millennium   (scary, weird religious nuts)
    alt.history.future   (just 3, and none relevant)
    alabama.education   (mostly unrelated ads)
    alt.education   (not too bad, but generally unimformed people)
    alt.education.ib   (only 4 postings; none important)
    alt.education.research   (empty; check again later)
    alt.philosophy.debate   (capitalism, socialism, and god)
    aus.education   (interesting, serious folks; very few issues we can use)
    be.education   (no such newsgroup)
    git.talk.philosophy   (empty)
    misc.education   (not real helpful)
    uk.education.misc   (no, not valuable)
    utexas.org.philosophy   (not really on target)

World Wide Web Sites

[Non-annotated list of resources used from the World Wide Web. Additional sources are sometimes added; older sources sometimes lose their value. This list of sources is intended to be illustrative, not exhaustive.]

The Daily News from Education Week.	http://www.edweek.org/clips/
CNN Custom News	http://mycnn.com
Education Week on the Web (posted every Wednesday)	http://www.edweek.org/
Education World & Education News	http://www.education-world.com/education_news/
Daily Report Card	http://commons.somewhere.com/reportcard/
Associated Press Wire (access through a subscribing newspaper)	http://wire.ap.org/?FRONTID=HOME
excite Netsearch	http://www.excite.com/
America Tomorrow Home Page	http://www.america-tomorrow.com/
GOALS Introductory Page	http://www.negp.gov/
Economic Briefs	http://www.nwbuildnet.com/nwbn/economicbriefs.html
Federal Resources for Educational Excellence	http://www.ed.gov/free
IDES Labor Market Information	http://uicdocs.lib.uic.edu/ides/index.html
Yahoo Business & Economy	http://www.yahoo.com/Business_and_Economy/
CCSSO	http://www.ccsso.org/
Consortium for Equity in Standards and Testing	http://wwwcsteep.bc.edu/ctest
CRESST	http://cresst96.cse.ucla.edu/index.htm
Education Comission of the States	http://www.ecs.org/ecs/ecsweb.nsf

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Educational Issues Headlines	http://www.weac.org/resource/edissues.htm
National Comission on Teaching and America's Future (NCTAF)	http://www.tc.columbia.edu/~teachcomm/
NCES	http://nces.ed.gov/
Progressive Policy Institute	http://www.dlcppi.org/aboutppi.htm
Public Agenda	http://www.publicagenda.org/
Stateline.org	http://www.stateline.org/issue.cfm?IssueID=1 24
Policy.com Homepage	http://www.policy.com/
Lookouts: Environmental Scanning	http://www.gactr.uga.edu/Scanning/lookouts.h tml
Welcome to CCSSO	http://www.ccsso.org/
Welcome to the World Future Society	http://www.wfs.org/index.htm
The Future of Secondary Education	http://horizon.unc.edu/projects/HSJ/
Research by the Millennium Project	http://www.geocities.com/~acunu/
LOOKOUTS: The newsletter of the Environmental Scanning Program of the University of Georgia Center for Continuing Education	http://www.gactr.uga.edu/Scanning/lookouts.h tml
Futures forum with hotlinks to coffee shoppe	http://www.scu.edu.au/ewt/Futures/
Pacific Centre for Futures Innovation	http://www.peg.apc.org/~phwildman/pcfi.htm
Prosperity Press - Social Justice – Community Economic Development –	http://wwwlib.scu.edu.au/Commercial/PP/PPh ome.html
Future Focused Links and Organizations/Futurist Organizations	http://www.cpavision.org/link/resources/
Greater Boston Chapter of the World Future Society	http://www.huevosrancheros.com/~sasha/refs/ wfsgbc.html
Environmental Scanning: Looking To The Future – how they do it at the Georgia Center for Continuing Education.	http://www.gactr.uga.edu/Scanning/scandef.ht ml

Pacific Centre for Futures Innovation	http://www.peg.apc.org/~phwildman/pcfi.htm
Prosperity Press - Social Justice - Community Economic Development—Futures Studies - sustainable lifestyles	http://wwwlib.scu.edu.au/Commercial/PP/PPh ome.html
LOOKOUTS: The newsletter of the Environmental Scanning Program of the University of Georgia Center for Continuing Education	http://www.gactr.uga.edu/Scanning/lookouts.h tml
Anticipatory Learning Communities by Arthur Harkins, Janet Grochowski, and Brenda Stewart. Prepared For And Delivered At The World Future Society Conference, Washington, D.C., July 1996 Also published in the January 1997 Issue of Futurics	http://edpa.coled.umn.edu/Futures/ALC.html

Print Media

Education Daily, published every business day by Capitol Publishing Group, PO Box 1453, Alexandria, VA 22313; 800-655-5597.

Gordon, T. J. and Glenn, J. C. *Environmental Scanning* in Futures Research Methodology, Jerome Glenn, Ed. The United Nations University; the Millennium Project, 1999. http://millennium-project.org

Morrison, J. L. (1992). *Environmental Scanning*. In M. A. Whitely, J. D. Porter, and R. H. Fenske (Eds.), A primer for new institutional researchers (pp. 86-99). Tallahassee, Florida: The Association for Institutional Research. (http://horizon.unc.edu/courses/ papers/enviroscan/)

In addition, we use reports and studies as they happen to come into the office. Since we are the Research and Policy Division of the state education agency, we receive a host of studies and research reports from around the world.

ISSUE SCANNING REPORT

May 7, 1999

Research and Policy Division

ISSUES:

CRITICAL EVENTS/TOPICS:

UPDATES:

Appendix: Illinois State Board of Education Leadership Agenda 1997-2000

How long would it take for a student to acquire the knowledge/skills that are currently being defined as "essential?" According to the Mid-continent Regional Educational Laboratory (McREL), a high school diploma would require as much time as a master's or professional degree. With nearly 4,000 benchmarks in 14 subject areas even the brightest students would need *nine additional years* of schooling to master them. The reason there are so many standards is that policy makers and subject experts have focused on particular subject areas and have not considered the curriculum as a whole. The end result is a curriculum that is overwhelming to both teachers and students.

McREL hired the Gallup Organization to ask the public what they believed was necessary for students to learn prior to high school graduation. The 2500 adults were asked to rate 116+ national standards independently on a 4-point scale (definitely/probably necessary; definitely/probably **not** necessary). If a curriculum were designed based on the responses to this survey the following would be included:

* **ALL** of the standards in health, technology, and work skills,
* **Fifty percent or more** of the standards in math, science, U.S. history, language arts, civics, behavioral studies, and thinking and reasoning,
* **Less than 50 percent** of the standards in world history, economics, geography, and physical education,
* **None** of the standards in fine arts, foreign language or historical understanding.

The study found significant differences between subgroups by education levels. Respondents with more than a high school degree included 73 core subject-area standards compared with 59 for those with a high school diploma or less. One weakness of this study is that standards were rated independently of each other, thus no direct trade-offs were considered. It would be easier to "trim the list" if one had a ranking of the relative importance of each standard.

IMPLICATIONS

Schools do not have the time or resources to address all of the standards and certainly not in-depth. Thus, there are two viable courses of action given the plethora of standards at the state and national levels: reduce the number of standards, or increase instructional time. One way to reduce the number of standards is for committees of experts and lay people to rank order them. Another way is to hold the amount of time per subject area constant and determine what percent of the curriculum should be devoted to each standard. The *number* of standards may not have to be reduced if a distinction is made whether students need only a passing knowledge of the topic or an in-depth understanding (see E. D. Hirsch's extensive vs. intensive curriculums).

Options for increasing instructional time include lengthening the school day and year-round schooling.

Students soon will be able to earn a high school diploma anytime, anywhere, through a for-profit company that has been started by the University of Nebraska at Lincoln (http://class.com/). The courses will be online versions of traditional correspondence and television-based courses from the Independent Study High School, a fully accredited school that the university has owned and operated since 1920. The school's accreditation from the North Central Association of Colleges and Schools covers the online courses.

While many schools and other organizations provide high school courses online, *Class.com* is the first to offer a high school diploma from an accredited school on a for-profit basis.

The university's division of continuing studies spent three years turning courses from the Independent Study High School into an online format using the World Wide Web, databases, and interactive tools such as electronic mail, chat rooms, and a computer tracking system that lets teachers monitor the amount of time students spend with different curricular materials. Development of those technologies was financed in part by a $17.5 million, five-year "Star Schools" grant from the U.S. Department of Education.

Class.com has licensed the technologies, as well as the school's curriculum, from the university, which will continue to own the company. *Class.com* also has hired, at least temporarily, seven faculty members at the independent-study school, which enrolls 2,000 students, including home schoolers, child actors, and rural residents. A student who completed a minimum of 40 required courses would receive a college-preparatory diploma, not a high-school-equivalency credential, from the Independent Study High School.

Already, 623 students are taking 20 online courses, most of them from a special education district in California. Twelve more courses are expected to be ready by October, with a total of 55 courses eventually to be offered.

The company's future plans include trying to sign contracts with school districts and even state departments of education to provide courses to large numbers of students. It will also seek other partners to put content into its online format.

IMPLICATIONS

Analysts predict a huge future market for online education. This model is an example of how the technology might foster a lot of entrepreneurship, partnerships, and collaborations. On the other hand, it's going to add tremendous complexity to assuring quality. Currently, the State Board has no need or procedures for approving online instruction. That is expected to change in the near future.

Before and After School Programs [5&13]

The Texas Senate has passed a bill that would grant franchise tax credits to corporations that fund before and after school programs. The programs have to be operated by a non-profit organization (e.g., Boys and Girls Club and YMCA); educational facilities; counties; or cities.

Qualifying expenditures would include construction, renovation or remodeling of a structure to be used by the program, equipment, supplies and food, and administrative costs.

IMPLICATIONS

The franchise tax credit can lead to greater financial contributions from businesses and even generate some partnerships with businesses. This device can enhance the community involvement in schooling beyond the typical civic interest. In addition, the bill can encourage new partnerships with non-profit organizations in the community.

Some think of the measure as a juvenile crime prevention tool (most teen crime is committed in the hours following the school day), while others view it as an opportunity for students to have additional study time.

NRA Training in Elementary School

A college in Colorado offers National Rifle Association classes for credit. Now, state lawmakers are urging schools to teach the NRA's gun safety program to small children. The Colorado House is considering a Senate-passed resolution aimed at bringing the NRA's "Eddie Eagle" safety campaign into schools statewide for kindergarten through sixth grade.

Senators passed the non-binding resolution 30-4 after Senate Minority Leader Mike Feeley said the NRA is simply trying to put its agenda before schoolchildren. But Senator Mary Ann Tebedo, a Colorado Springs Republican who sponsored the resolution, said the program does not show kids how to use guns but explains to youngsters who find guns not to touch them and find an adult.

Trinidad State Junior College became the first college in the nation to grant credit for NRA training classes, offering 16 courses starting this summer. School officials say the NRA agenda will not be part of the courses, but the anti-NRA group Handgun Control Inc., said the group's politics are bound to get into the training.

IMPLICATIONS

Many special interest groups and lobby organizations have curricular materials and would be anxious to have a school audience. It is reasonable to assume that each group will have a political agenda that is expected to be infused into their curricular materials. Some of these groups may be non-controversial, such as local art council members coming into schools to teach the history of painting. Most, however, will want to present messages that some of our stakeholders will view inappropriate for schools: the Nazi Party, Moral Majority, atheists groups, extreme conservative organizations, and extreme liberal organizations.

Two recent studies suggest that in light of the salaries teachers receive and their qualifications, they constitute a labor market bargain. The first study was conducted by the Educational Testing Service (ETS) and ACT Inc. It found that prospective teachers who actually go on to earn licenses to practice have higher SAT scores than most college-bound high school seniors. SAT scores were highest for those high school seniors who sought teaching licenses in specific content areas, as opposed to those who sought licensure in elementary, special or physical education.

In the second study, teachers compared favorably with other groups of adults in the recent National Adult Literacy Survey (NALS). This survey provides measures of literacy across prose, document, and quantitative scales. On average, teachers perform as well as other college-educated adults across all three literacy scales. Teachers with four-year degrees perform similarly to others with four-year degrees; and teachers with graduate studies or degrees perform at a comparable level to other adults with graduate studies or degrees.

IMPLICATIONS

The current educational reform climate reveals an increasing concern over the quality of teachers. The first two administrations of the Massachusetts teacher licensing test drew national attention due to the high failure rate, and added to the view that the poor quality of our nation's teachers is to blame for the low achievement of students. Yet, as the above studies suggest, teachers who are licensed and teaching compare well with other college graduates in other professional positions. Efforts to continuously improve the effectiveness of teachers should always be welcome, but assuming teachers are less capable then other college graduates is not warranted. This assumption often leads to blame based reform aimed at teachers. The development of teacher proof curricula, attacks on tenure, criticism of teacher organizations, and the reluctance to improve teacher salaries and working conditions may be the offshoot of such assumptions. More comparative studies on the quality of teachers would be helpful, as would balanced efforts at school improvement. In Illinois, we need to continue our reform efforts and avoid blaming any one educational component.

CRITICAL EVENTS

Debate on Results of Oregon's Contract Renewal Law [4]

In 1997, Oregon's legislature passed a bill which removed the presumption of teacher and principal tenure, forcing school boards to renew contracts for teachers and principals annually. Two years later, the results of the bill are being debated. Some say the law has stepped up the number of bad educators leaving the schools. Others say it has done little more than place a new paperwork burden on administrators.

A recent survey of 126 of Oregon's 199 districts by the Oregon Confederation of School Administrators showed that the turnover of below par teachers and administrators was about 1 percent this year and last. One of the sponsors of the legislation was expecting between 6 percent and 10 percent of teachers and administrators would need improvement or removal.

Some of the controversy stems from the differences among districts. Portland (the state's largest system, with more than 52,000 students) sent 27 teachers and four administrators packing. Salem-Keizer (the second largest district with 33,000 students) reported that it had granted new contracts this spring to all eligible teachers, principals, and assistant principals. The much smaller Tillamook district (2,300 students) removed two teachers, but a spot check of four other districts found that those systems were extending the contracts of all eligible educators.

Statistical differences are also at issue. Portland leaders have emphasized the number of teachers leaving because of inadequate performance, whether they resigned or were dismissed. Other districts have reported just the number dismissed; a head count that requires less record keeping and speculation than tracking teachers who are "counseled out" of the profession.

The numbers are rather small. There are about 20,200 experienced teachers in the state. In 1997-98, 35 were dismissed and 132 encouraged to leave. This school year, 106 were placed on an assistance plan, and 96 were counseled out. Also this year, when the law kicked in for administrators, 22 principals and assistant principals (out of 1,400) were dismissed.

The law did not alter the criteria for dismissing a teacher, so the procedures for termination remain largely unchanged. Many districts did not have to add an assistance program because they already had one in place. Many leaders agree that the greatest impact of the law is indirect, affecting mind-set and school culture.

The 3,293 graduates of Prince William County's Class of 2000 (Washington, DC area) now come with a "warranty." Future employers are guaranteed that if the graduates do not have the basic math and language skills required for success in the workplace, the school system will pay for remedial education.

Prince William appears to be the only Washington area school system to embrace this form of public accountability. Several business leaders have reacted enthusiastically to the idea, although some have questions about what skills would be covered by the warranty.

In a recent survey, personnel executives said they believe that more than a third of job applicants nationwide lack the basic math and reading skills to perform the jobs they are seeking. That number was up from 19 percent in a 1996 survey. Eric Rolfe Greenberg, who conducted the study for the American Management Association, said the problem is not that the performance of U.S. schools is declining. Instead, today's jobs require more advanced skills than they did only three years ago. Many businesses may jump at the chance to send their employees back to school for free classes. The number of employers offering remediation on the job has increased to 9 percent, up from 5 percent two years ago. Unemployment in the area is very low; it is difficult to replace people, so employers have started remediation programs.

The graduation warranty movement started in the late 1980s and early 1990s, as schools started to look at ways to boost confidence in the education they were providing. Dozens of school systems and some states hopped on the bandwagon, but the movement later appeared to fizzle. Businesses were not sending back deficient employees because they thought the warranty programs were ill defined, and many graduates didn't want to go back to high school.

The effort in Prince William County may be more public relations hype than anticipation of low remediation need. This may, however, be the start of a revival of the "warranty" movement. Business groups are expected to support the idea. A warranty effort in Illinois would need to be tied to our standards, and could easily be "defined" by the Prairie State endorsement on the diploma.

UPDATES

School Start Times and Sleep Research [15]

In April, a bill was introduced in Congress by California Representative Zoe Lofgren, which would grant up to $25,000 for every school district that starts high school classes after 9 a.m. School districts in several states are also reviewing the possibility of making start time changes. Most recently, the Minneapolis school system instituted a later start time for its high schools based on the successful results from the nearby city of Edina, Minnesota, which was the first school system in the nation to make the change in 1996. High schools seem to be warming to the idea of later start times because of the formidable amount of supportive sleep research, and the evaluative data stemming from districts that were first to make the change to a later start time. Until recently, it was believed that high school age students stayed up later and slept later primarily for social and psychological reasons associated with adolescence. Sleep researchers have instead attributed the sleep patterns of adolescents to rhythmic patterns called "Circadian" that are generated internally. Changes in adolescent circadian patterns develop without any social or environmental cues and are very resistant to change. Required to wake up early for school, but driven biologically to stay awake later in the evening, high school students often show signs of sleep deprivation that include problems in information processing and memory, increased irritability, anxiety, and depression. In addition, the research information on adolescent sleep patterns and needs show the following:

* As teenagers move through teenage years, they need increasing amounts of sleep.
* Nine hours per night is the necessary amount to avoid behaviors associated with sleep deprivation.
* Risks of teenage sleep deprivation include mood and behavior problems, increased potential for drug and alcohol use, and vulnerability for accidents.
* 20 percent of all high school students fall asleep in school.
* Over 50 percent of students report being most alert after 3:00 P.M.
* Forced awakening does not appear to reset the circadian rhythm, and school sleep lag is worse for earlier starting schools.
* Student's who evidence a sleep lag syndrome correspond to those having poorer grades. Causation is not implied here but the relationship does statistically exist.

Changing a school's start time can be a daunting task. Transportation and athletic schedules, extracurricular activities, and community and staff attitudes are just some of the areas that must be addressed. Nevertheless, the research to date strongly suggests that the effort is justified. As more evaluative data are collected, the support for later school start times for adolescents may become overwhelming. Improvements in attendance, achievement, and discipline will outweigh the planning difficulties and the negative attitudes. Illinois needs to closely monitor developments in this area.

Researchers reported that the benefits of smaller classes in grades K-3 extend right through high school graduation. Students enrolled in small early grade classes, as part of Tennessee's Project STAR (Student/Teacher Achievement Ratio), have a higher graduation rate, grade point average, and chances of pursuing college than students not in the experimental program. The STAR experiment started in 1985 and tracked 11,600 randomly selected students in large and small classes.

Students in K-3 smaller classes (13-17 students per teacher) substantially outperformed students in larger classes (22-25 students) on the Stanford 9 achievement test. By third grade, small class students were ahead of large class students by 4.6 months in reading and 2.8 months in math. By eighth grade, small class students are more than a year ahead in reading, math, and science. At least three years in a smaller class are necessary to see sustained benefits through later grades.

Though based on 11,600 student records, researchers claim the findings are preliminary. They hurried to release the data to capitalize on the debates in Congress and the states over whether lower class size is worth the costs. This study also refutes a study conducted in early 1998 concluding that Project STAR's results did not support overall reductions in class size, except perhaps at the kindergarten level.

Illinois State Board of Education Leadership Agenda
1997-2000

1. Implement and institutionalize the Illinois Learning Standards as the foundation for educational excellence in Illinois.

2. Revise the state assessment program (Illinois Standards Achievement Test or ISAT), implement the new Prairie State Achievement Exam, and promote effective local assessment practices.

3. Implement and improve the state's accountability systems, including the Quality Assurance, Financial Assurance and Academic Early Warning and Watch systems.

4. Restructure the professional development system for Illinois educators, including preparation, licensure and continuing professional development.

5. Advocate for school funding reform to ensure that all Illinois schools have the resources necessary to prepare students to meet the Learning Standards.

6. Ensure that every Illinois student reads with understanding and proficiency.

7. Support early childhood education so that all children develop a strong foundation for learning.

8. Ensure that all students at risk of academic failure are able to meet the Learning Standards.

9. Integrate learning technologies into the teaching/learning process in all Illinois schools.

10. Ensure that school infrastructure and the learning environment are safe and supportive of student learning.

11. Implement the Education-to-Careers system as an integral part of educational reform and school improvement K-16.

12. Develop linkages with higher education to create an integrated system of educational opportunities that serve the needs of learners of all ages, with particular emphasis on students in Preschool through college (P-16).

13. Enhance communication and partnerships among all education stakeholders.

14. Ensure that the work of the state education agency is focused on the vision and carried out with fiscal and programmatic integrity.

15. Explore the educational implications of the changing world, with particular attention to future learning environments.

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