#### MINUTES OF THE SENATE ASSESSMENT AND TAXATION COMMITTEE

The meeting was called to order by Chairperson David Corbin at 10:45 a.m. on February 21, 2003, in Room 519-S of the Capitol.

All members were present except: Senators Allen and Buhler

Committee staff present: Chris Courtwright, Legislative Research Department

April Holman, Legislative Research Department

Gordon Self, Revisor of Statutes Office Shirley Higgins, Committee Secretary

Conferees appearing before the committee: Jim Weisberger, Kansas Department of Revenue

Stanley Kelley, CPA, Overland Park

Senator Nick Jordan

Terry Leatherman, Kansas Chamber of Commerce & Industry

Others attending: See attached list.

#### SB 170-Withholding on management and consulting fees paid to nonresidents

Jim Weisberger, Kansas Department of Revenue, testified in support of <u>SB 170</u>. He explained that the bill amends the Kansas withholding tax act to provide for withholding on management and consulting fees that are paid in the ordinary course of trade, business, or other for profit venture to a nonresident of Kansas. The amendment will ensure that income tax due from nonresidents is collected before payments are sent out of state. He pointed out that individuals making personal transactions would not be required to withhold tax. The Department believes that the terms "management fee" and "consulting fee" require additional defining either through the legislative process or through regulation. Mr. Weisberger also informed the Committee that a working group consisting of CPAs and representatives from the Department of Revenue has been working on a proposal to correct a problem with withholding tax on "distributions." During the process, the working group also identified other aspects of the withholding tax law which can be improved. The Department supports an amendment to <u>SB 170</u> incorporating the group's proposals. The final version of the draft will be ready soon. (Attachment 1)

Senator John Vratil introduced a constituent, Stanley Kelley, a CPA from Overland Park, who testified in support of <u>SB 170</u>. Mr. Kelley noted that, in the course of his practice, he has become aware of the existence of a potentially abusive strategy aimed a reducing state income taxes, and he gave an example of a basic two-step strategy. In this regard, he called attention to a copy of one page of state residency guidelines which were given to him by a financial advisor in the Kansas City area in conjunction with discussions about the strategy. He noted that, while this information is used for legitimate tax planning purposes, taxpayers in pursuit of any illegitimate strategies are well armed when dealing with state residency issues. (Attachment 2)

Following Mr. Kelly's testimony, the hearing on **SB 170** was closed.

#### SB177-Income tax credit for hiring certain teachers

Senator Nick Jordan, sponsor of the bill, outlined the background leading to the introduction of the bill and reminded the Committee that he requested a similar bill late in the 2002 legislative session. He emphasized that there is a serious shortage of degreed science and math teachers in Kansas. In this regard, he called attention to a letter in support of the bill from BEST, an organization formed by businesses and the Wichita Chamber of Commerce to accomplish the same goals as the bill. Also attached to his written testimony is information outlining the importance of science and math education to the success of students, to the business community, and to our national security. Senator Jordan explained that the bill encourages partnerships between school districts, teachers, and business by offering a 25 percent tax credit on the salary paid by a

#### CONTINUATION SHEET

MINUTES OF THE SENATE ASSESSMENT AND TAXATION COMMITTEE at 10:45 a.m. on February 21, 2003, in Room 519-S of the Capitol.

business to a teacher for work outside the school year. He noted that the bill requires that, in order to get the tax credit, there must be an agreement in place between the school district, the teacher, and the business. He believes the tax credit will encourage teachers in rural and underperforming urban districts. With regard to the fiscal note on the bill, Senator Jordan noted that it would be difficult to figure because it all depends on how many school districts and companies form agreements and how many degreed science and math teachers participate. He reiterated that the goal of the bill is to attract science and math teachers statewide to fill a critical need in Kansas' education process. (Attachment 3)

Terry Leatherman, Kansas Chamber of Commerce and Industry, testified in support of <u>SB 177</u>. He pointed out that businesses are in need of workers with skills in the science and math fields, and businesses also understand the need for those teaching in the classroom to have a better understanding of the requirements of business industry today. He noted that the Wichita Chamber of Commerce has successfully sponsored a very positive program similar to this concept for several years. As to the fear expressed by some that a program such as this will only lead to a mass exodus of teachers from the classroom, he reported that this has not been the experience of the Wichita program. In fact, two former Kansas Teacher of the Year recipients who have participated in the program stated that the program actually strengthened their desire to stay in the classroom. (Attachment 4)

There being no others wising to testify on **SB 177**, the hearing was closed.

Senator Corbin opened a discussion on a previously heard bill, <u>SB 115</u>, which would reduce the membership of the Board of Tax Appeals (BOTA) from five to three. With regard to issue of qualifications for members, Gordon Self, Revisor of Statutes Office, explained that the stricken lines 19 through 24 require that three of the current five members of BOTA must be attorneys who have practiced law for five years or they must be a certified public account who has maintained registration as an active attorney. He reminded the committee that, as a policy decision, a suggestion was made at the hearing to reinsert that language but require that two of the three members meet the requirements.

Senator Goodwin commented that, with the complexity of the cases that BOTA hears, a member would be lost without a law degree; therefore, her preference would be that all three members be attorneys. In response, Senator Donovan commented that there is a great deal of value in a member being a CPA as well as an attorney when dealing with tax issues.

Senator Donovan moved to amend SB 115 by reinserting lines 19 through 24 but requiring that two of the three members meet the requirements, seconded by Senator Oleen. The motion carried.

Senator Clark moved to recommend SB 115 as favorable for passage as amended, seconded by Senator Donovan. The motion carried.

The meeting was adjourned at 11:20 a.m.

The next meeting is scheduled for February 24, 2003.

# SENATE ASSESSMENT AND TAXATION COMMITTEE GUEST LIST

DATE: <u>Ithuan</u> 21, 2003

| NAME             | REPRESENTING            |
|------------------|-------------------------|
| T.C. Inderson    | KSCRA                   |
| Ron Seeber       | Hein Law Firm           |
| Doug LAWRENCE    | Wester ENERGY           |
| David Cheveland  | Kensus Dept Of Connerce |
| BOB FINCHAM      | AIA KANSAS              |
| Robit J. Fan     | SNC                     |
| Scorge Retersen  | KTOV                    |
| TERRY LEATHERMAN | KCCI                    |
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JOAN WAGNON. ACTING SECRETARY

KATHLEEN SEBELIUS. GOVERNOR

#### TESTIMONY REGARDING SENATE BILL 170

POLICY AND RESEARCH

#### Before the Senate Assessment and Taxation Committee February 20, 2003

Senate Bill 170 amends the Kansas withholding tax act to provide for withholding on management fees and consulting fees that are paid in the ordinary course of a trade, business or other for profit venture to a nonresident of the state of Kansas. The effect of the amendment is to ensure that income tax due from nonresidents is collected before payments are sent out of state.

The burden of deducting and withholding the tax falls on businesses that are frequently familiar with income tax withholding. Individuals making personal transactions would not be required to withhold tax.

The Department of Revenue supports this legislation. We would note, however, that the terms "management fee" and "consulting fee" probably require more definition. We believe this additional definition could be provided by regulation, rather than by statute.

The Department would also note that a working group, consisting of several members of the Kansas Society of Certified Public Accountants and representatives from the Department of Revenue, has been working on a proposal to correct a problem with withholding tax on "distributions". As part of its review process, the group also identified several other aspects of the withholding tax (including some purely clean-up provisions) where the law can be improved, or withholding expanded. The Department would recommend an amendment to SB170 incorporating the working group's proposals.

February 19, 2003

Chairman Corbin and Members of the Senate Assessment and Taxation Committee

Testimony On Senate Bill No 170

I have been in public practice as a CPA since 1977.

State income taxes are an increasing concern to high income taxpayers. Tax planning surrounding state income taxes is receiving greater attention by income tax practitioners and other financial advisors.

In the course of my practice in recent years, I have become aware of the existence of a potentially abusive strategy aimed at reducing state income taxes. Although the variations could be numerous, the basic two-step strategy can be illustrated with the following example:

- 1) The owner of a Kansas business establishes residency in a state that does not impose an individual income tax. A "management company" may then also be set up in that state.
- 2) A "management fee" or "consulting fee" is then paid from the Kansas business to the individual or his management company in the non-taxing state. The payment of the management fee does not reduce the overall federal income tax liability of the taxpayer. The Kansas state taxes are reduced significantly.

I am indirectly aware of two instances in which this strategy has been used. One was employed in the state of Kansas, the other was employed in another state. I am also aware that some financial advisors feel that this strategy is legitimate or at least "not fraudulent".

Despite the potential for abuse, it should be noted that management fees and consulting fees are routinely and legitimately used in the business community between related and unrelated business.

Senate Assessment + Taxation 2-21-03 Attach ment 2 I am also providing your committee a copy of state residency guidelines which were given to me by a financial advisor that operates in the Kansas City area. This was in conjunction with discussions about the strategy described above. While this information is certainly used for legitimate tax planning purposes, it should be clear that taxpayers in the pursuit of any illegitimate strategies are well armed when dealing with state residency issues.

Stanley E. Kelley, CPA

### Guidelines for Establishing Residency

Many states have specific requirements for establishing residency, including physically living in the state for a set number of days, or at least the time period in question. Those states without a personal income tax (see item 1 below) typically have more relaxed requirements, as might be expected. However, both these states and those with an income tax look at some general factors in determining whether or not an individual is a resident of that state. Some of the most common of these factors are listed under item 2 below.

- I. States without a personal income tax
  - A. Alaska
  - B. Florida\*
  - C. Nevada
  - D. New Hampshire\*
  - E. South Dakota
  - F. Tennessee\*
  - G. Texas
  - H. Washington
  - I. Wyoming
- \* Personal income tax consists of tax only on intangibles.
- II. Miscellaneous Factors that Influence Residency
  - A Location of driver's license
  - B. State of voter registration
  - C. State of car registration
  - D. Location of employment and other business interests
  - E. Location of doctor, attorney, accountant, etc.
  - F. Retention and strength of financial and social affiliations in community of origin
  - G Location of bank accounts
  - H. Location of club memberships
  - I. Location of church membership
  - J. Ownership of property in the state

In determining residency, most states commonly look at the intent of the individual. They also look at:

- 1. Domicile\* in the state;
- 2. Presence in the state for other than a transitory or temporary purpose,
- 3. Presence in the state for a specified period; and
- 4. Maintenance of a permanent place of abode in the state.

\*Domicile has been defined by Black's Law Dictionary as "that place where a man has his true, fixed, and permanent location home and principal establishment, and to which whenever he is absent he has the intention of returning .... A person may have more than one residence but only one domicile"

NICK JORDAN SENATOR, TENTH DISTRICT JOHNSON COUNTY 7013 ALBERVAN SHAWNEE, KS 66216

STATE CAPITOL, ROOM 143-N TOPEKA, KANSAS 66612-1504 (785) 296-7362



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#### TESTIMONY – SB 177 FRIDAY, FEBRUARY 21, 2003

SENATE CHAMBER

### SENATE ASSESSMENT AND TAXATION COMMITTEE SENATOR NICK JORDAN

Thank you, Mr. Chairman and members of the Committee, for the opportunity to appear today to discuss SB 177.

This bill is an attempt to fill a significant need in Kansas education by attracting more science and math teachers through a partnership with the business community.

Let me take a moment to explain some of the background of this idea. Three or four years ago I had the opportunity to meet the number two technology advisor to the President of the United States. We began to discuss the tremendous need for degreed science and math teachers nationwide and the negative impact this will have on our future economy and, certainly, on our kids. To make a long story short, we developed an idea that would be started with seed money provided by a federal grant. Our main concern and focus at the time were rural school districts and underperforming urban districts.

I arranged a meeting in Overland Park with a number of corporate executives from Sprint, Black & Veatch, and Honeywell, along with the Superintendent of Kansas City, KS schools, a representative of the Kansas Association of Science and Math Teachers, and the State Board of Education. The idea was received with tremendous enthusiasm. Of course, my contact at the White House is now gone and the federal grant never materialized.

The need for degreed science and math teachers is documented in Kansas. Behind special education teachers, this is our top need. The Kansas Association of School Boards stated in their testimony last year, "This bill is designed to target the most serious area of teacher shortage."

Since last year, two programs have come to light. Attached is a letter from Best, an organization formed by businesses and the Wichita Chamber of Commerce to accomplish some of the same goals of SB 177. Their letter is in support of the bill.

Senate ASSESSMENT & Taxation 2-21-03 Attachment 3 Also, the University of Kansas and the Kansas City, Kansas School District have joined together, through a grant, to attract science and math teachers. Although I don't know all the details, nonetheless it points out the need and efforts to attract qualified teachers.

The President's "No Child Left Behind" emphasizes science and math.

Attached to my testimony is information outlining the importance of science and math education to the success of our students, to the business community, and, yes, to our national security.

#### WHAT THE BILL DOES:

- Encourage agreements/partnerships between school districts, teachers and business.
- Offer a 25% tax credit on the salary paid by a business to a teacher for work outside the school year.
- Encourage teachers in rural and underperforming urban districts by offering a 30% tax credit.

There are numerous benefits to our schools and kids through this kind of arrangement. Perhaps one of the best will be science and math teachers who can bring "real world" experience to the classroom.

Senate Bill 177 is a good bill that addresses a real need. While this does not answer all our education needs, this bill could provide a vehicle to provide a very important piece of the puzzle.

I certainly hope that this committee will consider favorable passage of SB 177 to the full Senate. I would be happy to answer any questions.



# TIMSS Results: Impact For Our Economic Future And Individual Opportunities

In our knowledge-based economy, demands for skills in mathematics, science, and technology are continually increasing. Many jobs that once called for little background in mathematics, science, and technology in manufacturing, the service industry, and other areas now require higherlevel skills - people who can read technical manuals, handle a spreadsheet, and solve complex problems. Already, businesses are facing worker shortages that are affecting their growth in key sectors like information technology. Clearly, mastering challenging mathematics and science, applying both disciplines to solve real-world problems, and the ability to use technology as a tool, are more important than ever before for the economic future of our nation and individuals' personal opportunities. Yet, often in America, taking four years of high school mathematics and science and enrolling in tougher courses are perceived to be only for elite students. This is out of step with the times and the rest of the world: now most students need substantial and rigorous mathematics and science.

The Engines of Growth in Our Economy Are Industries
That Demand Mathematics And Science Skills. Two of the
fastest growing job areas, according to the Bureau of Labor Statistics, are
computer technology and health services, fields which require a strong
background in mathematics and science. The high-tech explosion in our
economy is evident in the fact that about half of America's fastest
growing businesses are high-tech firms. The CEO's of these firms and
the other fastest-growing product and service companies say that nearly
one in four of their entry-level workers needs to be competent in collegelevel math, according to a new Coopers & Lybrand survey.

Jobs Are Changing. Thousands of applicants are being turned down for factory jobs because they lack the advanced mathematics, communications, and computer proficiencies required to support today's manufacturing. A wide range of industries now call for advanced skills in mathematics and science when traditionally this was not the case. General Motors Corporation recommends that high school students interested in skilled trade occupations -- carpenters, pipefitters, and machinists-- take a rigorous mathematics and science course sequence: algebra, geometry, and physics. Diamond-Star Motors, a joint venture of Chrysler and Mitsubishi, tests all applicants for production and maintenance positions on their ability to do high school-level mathematics. An entry-level automobile worker, according to an industry-wide standard, needs to be able to apply formulas from algebra and physics to properly wire the electrical circuits of a car.

All employees from front-line to professional to management are

expected to demonstrate excellence in higher-level skills such as critical thinking, teamwork, communication, and problem-solving.

The U.S. Is Not Meeting Its Economic Needs: Businesses Already Face Worker Shortages, Limited Growth, And Costs of Remedial Training. One third of corporate economists surveyed in 1995 said their firms were encountering problems in finding a skilled workforce. [National Association of Business Economists, Industry Survey, January 1996] Half of company executives in information technology report a problem in finding skilled workers which they deem the most significant barrier to their company's growth within the next year. [U.S. Department of Education, Mathematics Equals Opportunity] One in ten positions in information technology is currently unfilled according to the Information Technology Association of America. [Second Annual IT workforce study, January 1998]

In America's fastest growing businesses, 88 percent of workers need to be retrained in computer technology and 15 percent need to be retrained in mathematics. CEO's of these businesses say that 31 percent of entry-level workers lack the necessary problem solving skills. [Coopers & Lybrand TrendSetter Barometer, 2/19/98]

Manufacturers surveyed believe that 40 percent of all 17-year-olds lack the mathematics skills to hold down a production job in manufacturing according to the National Association of Manufacturers. [Education and Training for America's Future, 1998] One in three job applicants tested by U.S. companies lacks the reading or mathematics skills required for the job as reported by the American Management Association.

Strong Mathematics and Science Skills Enhance Individual Opportunity, Leading to College Entry and Success. Students who take rigorous mathematics and science courses are much more likely to go on to college than those who do not. Data from the National Educational Longitudinal Study reveal that 83 percent of students who took algebra I and geometry, and nearly 89 percent of students who took chemistry, went on to college, compared to only 36 percent of students who did not take algebra and geometry and 43 percent of students who did not take chemistry. [U.S. Department of Education, Mathematics Equals Opportunity | Yet 31 percent of our college bound high school seniors did not take four years or more of mathematics, and 51 percent of college bound high school seniors did not take four years or more of science. Students who took four years or more of mathematics and science scored nearly 100 points higher on the SAT than those who took only one year of mathematics and science. [College Board's 1997 Profile of College-Bound Seniors]

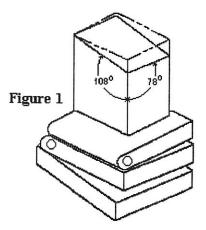
Taking a challenging college preparatory mathematics sequence and attending and completing college is a sound strategy for securing a promising career. The Bureau of Labor Statistics' (BLS) long-range

forecast to the year 2005 predicts that jobs requiring the most education and training will be the fastest growing and highest paying. According to BLS, occupations requiring a bachelor's degree or higher will average 23 percent growth, almost double the 12 percent growth rate projected for occupations requiring less education and training. [Bureau of Labor Statistics, Occupational Outlook Handbook, 1997] Even for high school graduates who do not attend college, having strong mathematics skills will make a significant difference in annual salaries, according to authors Murnane and Levy in *The New Basic Skills*.

#### **Examples of Mathematics at Work**

#### **Building Things**

One in three American workers builds products ranging from containers to automobiles and airplanes. The design work of engineers and architects leads to the casting, cutting, fastening, and molding of carpenters, machinists, and others. Each step in the process involves feats of visual imagination, three-dimensional geometry, and measurement.



The calculations that machinists are expected to perform routinely would tax the skills of most mathematics teachers. Figure 1 shows the kind of complicated task confronting a machinist when working in three dimensions: planning how to drill holes at specified angles in a block of aluminum whose base is not square and whose sides are tilted in odd directions. To complete this task, a machinist would use a device called a "sine plate," whose surface can tilt in two different dimensions to compensate for odd angles of a part that is to be drilled.

A good command of geometry and trigonometry is essential for anyone building things in today's manufacturing industries. Both designers and builders use computer-assisted design and computer-assisted manufacturing to support high-performance manufacturing. To use these tools effectively, workers need to have mastered drawing geometric objects, calculating distances, angles, areas and volumes, and using advanced concepts of light. One of the skill standards for computer-aided drafting and design specifies that workers should be able to "describe and explain light including angle of incidence and reflection, critical angle -- fiber optics, diffraction, electromagnetic radiation, electromagnetic spectrum...."

#### Ensuring Quality

Anyone who drove a car in the 1970's can attest to recent improvements in the auto industry: today's cars have fewer defects, need fewer repairs

and last longer. Like the auto industry, other industries ranging from telecommunications to aerospace strictly monitor the manufacturing process so that the end product is free of defects.

Skilled workers are one key to the success of advanced high performance manufacturing. And these workers have a new tool at their command: statistical control manufacturing. Rather than make costly repairs to products after manufacturing, firms like General Motors, Boeing, Siemens, and Kodak now insist that at every step in the manufacturing process, materials, parts, and assembly meet strict specifications. Assembly line workers are responsible for maintaining this consistent level of quality.

To monitor quality, today's assembly line worker uses statistical process control during the manufacture process. This involves collecting data on key indicators — the temperature of a mixture or pitch of a grinding tool—and charting data on a graph. If the process strays outside predetermined limits for quality, the worker may decide to make adjustments or shut down the assembly line. Statistical quality control is similar but takes place after the manufacturing process is complete. Workers sample finished products, charting their performance characteristics, and identify potential problems in quality before defective items are shipped for sale. In the past, companies employed specialists for quality control, but today's assembly line workers are expected to fill this role in addition to their other responsibilities.

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Last Updated - February 26, 1998, (pjk)



### TIMSS 12th-Grade Results Show Need to Build a Strong Foundation, Set Higher Standards, Require Tougher Courses, and Ensure Well-prepared and Effective Teachers

TIMSS Results Show Unacceptably Poor U.S. Performance. The Third International Mathematics and Science Study (TIMSS) compared the mathematics and science achievement of a half-million students from 41 countries at 4th, 8th and 12th grade. Prior TIMSS reports showed that U.S. students performed relatively well at 4th grade - above the international average in both mathematics and science, and in science outperformed only by Korea. U.S. students' relative standing declined by 8th grade, to only slightly above the international average in science and below the international average in mathematics. One reason is that while most students in grades 4-8 in other nations are studying the beginning concepts of algebra, geometry and other topics, U.S. students continue to be taught primarily arithmetic.

Today's release of 12th-grade results shows that U.S. students' standing relative to other TIMSS countries continues to decline in the high school years. A comparison of U.S. 12th graders' general mathematics and science knowledge to students in 20 other nations shows that our students scored below the international average in both topics and exceeded the performance of only two nations. A separate examination of advanced mathematics and physics comparing our students taking precalculus or calculus and our students taking physics with advanced mathematics and physics students in other nations shows that the performance of our advanced students is among the lowest of countries participating in TIMSS.

U.S. performance has improved over time in mathematics and science. Since the 1980's, scores on the National Assessment of Educational Progress as well as the SAT have risen. However, other nations have not been standing still. Thus our relative international standing has not improved despite our students' increasing achievement. The bottom line is that it appears that U.S. standards of achievement, testing and teaching in mathematics and science are far too low in middle and high schools.

Build a Strong Foundation in the Middle Grades: \$60 million to improve mathematics achievement in the middle grades. The President's budget requests approximately \$60 million for the U.S. Department of Education (ED) and the National Science Foundation (NSF) to implement an Action Strategy to support local efforts to put in place the rigorous courses and effective teaching that will build a strong foundation in the middle school years. This joint

initiative will provide high quality information and technical assistance to communities wishing to select and implement rigorous instructional materials based on challenging standards. It will promote improved mathematics teaching of elementary and middle school teachers by supporting teacher networks and effective teacher training models and materials that help teachers upgrade their content knowledge and learn how to teach for conceptual understanding while still ensuring mastery of the basics of computation. It will maximize existing federal resources via joint Education and NSF capacity-building grants to jumpstart efforts in 200-300 school districts to significantly improve the quality of mathematics instruction in the middle school years. And, it will promote public understanding of the importance of challenging middle school mathematics through a national effort to engage parents and communities.

Raise Standards and Measure Student Performance with a Voluntary National Test in Mathematics at 8th Grade. The TIMSS results demonstrate the need for a rigorous national benchmark that will reflect not only how a student's performance compares across states but also around the world. The standards of state assessments in 8th grade mathematics vary widely, and many of these 8th grade assessments are not as rigorous as the standards of the National Assessment of Educational Progress (NAEP) according to a recent study by the Southern Regional Education Board. Moreover, recent international comparisons of science and mathematical examinations for college-bound students show that our SAT, ACT, and AP exams are much less rigorous than similar exams from other nations. This is why President Clinton has proposed a voluntary national test in mathematics at the eighth grade. The voluntary national test will be based on the rigorous content and performance standards in NAEP and linked to TIMSS. While TIMSS and NAEP provide a snapshot of the nation's performance, they assess only a sample of students: neither individual student nor school performance can be ascertained. The voluntary national test in mathematics, however, would let parents and teachers know how individual students and schools can improve in relation to rigorous national and international standards and whether students are adequately prepared to take demanding high school mathematics and science.

Offer a Challenging curriculum and encourage students to take tougher courses. TIMSS shows that what we teach and how we teach is what determines our students' achievement. Because decisions about curriculum and teaching are local ones, it rests primarily with local communities and states to ensure that students are getting a rigorous mathematics and science program taught by effective and well-trained teachers. Today, most students — even most college- bound students — do not take four years of high school mathematics and science. Ninety percent of all high school students stop taking mathematics before getting to calculus. Students should take demanding mathematics and

science courses through high school such as physics and calculus -- and these courses must be rigorous.

Improve the Teaching of Mathematics and Science. How we teach is as important as what we teach. The TIMSS 8th grade study found that we teach mathematics differently than other nations: U.S. mathematics classes require students to engage in less high-level mathematical thought and solve fewer multistep problems than classes in Germany and Japan. In the nation's high schools, this is compounded by the fact that 28% of high school mathematics teachers and 55% of high school physics teachers neither majored nor minored in these subjects. States, districts, colleges and universities must get serious about teacher preparation, teacher certification, and ongoing professional development to ensure that students are taught by teachers who are prepared to teach challenging mathematics and science.

Additional Administration Initiatives that will Improve Mathematics and Science Achievement. Many of the President's education proposals in the FY99 budget will raise standards and achievement in mathematics and science. The budget requests \$50 million for the Department of Education and \$25 million for NSF to support a joint research program to learn how brain research, cognitive science and learning technology can lead to improved achievement in reading and mathematics. The President's \$140 million High Hopes for College proposal would promote partnerships between colleges and middle or junior high schools in low-income communities to get and keep students on the track to college, including ensuring that students have access to the rigorous mathematics and science courses that prepare them for college. The President's proposal for Recruiting, Preparing, and Supporting Teachers includes \$30 million for improving the preparation of future teachers, with emphasis on teachers of mathematics and reading. Furthermore, the President's \$22 billion school modernization proposal will help upgrade mathematics and science classrooms and laboratories in many overcrowded and outdated schools.

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Last Updated - February 24, 1998, (pjk)

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## EDUCATION FREPORTER

NUMBER 182

THE NEWSPAPER OF EDUCATION RIGHTS

**MARCH 2001** 

# Math & Science Ed Called National Security 'Crisis'

WASHINGTON, DC - A report released Feb. 15, 2001 by the U.S. Commission on National Security calls the deficiencies in American math and science education "threats to national security," which must be addressed immediately to protect the nation from "distinctly new dangers." The 14-member Commission, also known as the Hart-Rudman Commission, says Americans "are living off the economic and security benefits of the last three generations' investment in science and education. . . . . Qur systems of basic scientific research and education are in serious crisis, while other countries are redoubling their efforts. . . . "

"In this Commission's view," the report continues, "the inadequacies of our systems of research and education pose a greater threat to U.S. national security over the next quarter century than any potential conventional war that we might imagine." The authors state that America's ability to continue to lead the world in technological development will depend on "the depth and breadth of its scientific and technical communities."

The report points out that 34% of public school math teachers and nearly 40% of science teachers lack an academic major or minor in these fields, and that a serious shortage of qualified K-12 teachers exists in science and math. It states that the education system must produce "significantly more scientists and engineers, including four times the current number of computer scientists, to meet anticipated demand." The authors lament that the U.S. is already searching abroad for technical experts to fill many U.S. jobs and that this situation is likely to increase, posing greater risks for national security.

The broad effect of the lack of qualified math and science teachers, notes the Commission, is evident in the test scores for U.S. students. Though rising, these scores are not keeping pace with those of students in many other countries. The lag is especially significant among U.S. high school students.

The Commission's report laments that America's education woes in the mathematics and science disciplines are "becoming cumulative" and will require "a multi-faceted set of solutions." The Commission recommends that the federal research and development budget be doubled by 2010, and that Congress pass a "National Security Science and Technology Education Act" to provide:

- Educational incentives to encourage students to pursue careers in science and technology, and particularly as K-12 teachers in these fields;
- "Substantial" incentives to bring talented scientists, mathematicians and engineers into government service, both civilian and military;

http://www.eagleforum.org/educate/2001/mar01/math-science-crisis.shtml

1/22/02

- A National Security Teaching Program to encourage graduates and experienced professionals in science, math, and engineering to teach in U.S. public schools for three to five years;
- Expansion of the Eisenhower Program run by the Department of Education in order to meet the professional development needs of science and math teachers.

The Commission believes "core secondary school curricula should be heavier in science and mathematics," and require higher levels of proficiency.

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### New/s

**IMMEDIATE RELEASE CONTACT**: Jim Philipps
Wednesday, March 7, 2001
202/225-3665

### BOEHLERT HOLDS HEARING ON NATION'S K-12 SCIENCE & MATH EDUCATION

**WASHINGTON, D.C.** – Rep. Sherwood Boehlert (R-New Hartford), Chairman of the House Science Committee, today presided over a full committee hearing to hear teachers' perspectives on how the federal government can help improve K-12 science and math education. The hearing was the first formal step in drafting legislation to specifically address the need to keep the excellent science and math teachers already working in American classrooms, and to encourage our best students to choose a career in science and math education.

Testifying before the Science Committee were four teachers representing elementary, middle, and secondary math and science educators. Three members of the panel received the 2000 Presidential Award for Excellence in Science and Mathematics Teaching, and the fourth was a volunteer for Teach for America, a national "teacher corps" that places recent college graduates into K-12 teaching positions. (read Boehlert speech to 2000 Presidential Award for Excellence in Science and Mathmatics Teaching.)

"We spend a lot of time in Washington talking about teachers, but too little time talking to them," Boehlert said in his opening remarks. "Today's hearing will start to correct that imbalance."

In his recent address to Congress, President Bush called for increased accountability for student performance, a focus on "what works," a reduction of educational bureaucracy, an increase in funding flexibility, and the empowerment of parents. Of particular interest to Boehlert and the Science Committee is the President's call to strengthen K-12 math and science education.

Boehlert said the consequences for failing to improve our math and science education achievement are far-reaching. It has been argued that the failure to engage more K-12 students in math and science has the direct effect of decreasing the number of math and science undergraduates and, consequently, graduate students at our nation's universities. This results in fewer qualified workers for our nation's high-technology industry. A failure to provide stimulating and challenging math and science education programs for all students leads to the development of a less-informed, less-discriminating citizenry.

Press Releases

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February 19, 2003

Senator Nick Jordan 143-N Kansas State Capitol 330 SW 10<sup>th</sup> Avenue Topeka, KS 66612-1504



BUSINESS/EDUCATION SUCCESS TEAM

Dear Senator Jordan.

BEST, the Business Education Success Team is writing this letter to affirm our support and endorsement of Senate Bill No. 177, an act concerning taxation; providing for a tax credit against the income tax liability of certain business firms. We are pleased to join in this collaborative effort which allows a tax credit for a business that enters into a partnership agreement with a school Board of Education to employ a teacher during months in which school is not in session.

BEST is an alliance between the business and education learning communities of Wichita and Sedgwick County, Kansas. It is managed by staff from the Wichita Area Chamber of Commerce. As a regional catalyst for education reform since 1988, BEST's mission is to create flexible lifelong education and training systems that connect learning and careers, measure performance, and prepare all individuals for a lifetime of success.

Since 1988, BEST has been instrumental in advocating strategies which bridge the needs and resources of employers, individual learners, and our educational institutions. Senate Bill 177 is an act which addresses the gap in teacher's knowledge about the world of work demands of employees and offers an incentive for businesses to hire teachers during the summer.

As an example of this, BEST manages a teacher summer internship program (HOWE – Hands On Work Experience) in which teachers are hired by businesses that permit them to participate in their daily activities. This experience requires teachers to observe the workplace, record their comments and write an essay about how they will impart those observations to students. The essays show us that educators are then able to speak credibly and with rich examples about the relevance of students' academic study to their future careers.

At the beginning of the program teachers receive an orientation on what competencies and employee attributes are important to businesses today. I tell them that this program will be a "life-changing" experience for them and they always greet this statement with apprehension. Without exception, teachers report during our debriefing session that the shadowing experience has changed the way they will teach and structure their lesson plans in the future.

The HOWE program, now in its fourteenth year, has always more teachers wishing to participate than businesses. Perhaps having the ability to receive a tax credit would foster more business participation in the program.

Sincerely

Suzie Ahlstrand

Vice President of Education and Membership Development

Wichita Area Chamber of Commerce

## LEGISLATIVE TESTIMONY



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SB 177

February 21, 2003

KANSAS CHAMBER OF COMMERCE AND INDUSTRY

Testimony before the Senate Committee on Assessment and Taxation By Terry Leatherman, Vice President – Legislative Affairs

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to appear today and express KCCI's support for SB 177, a bill which would encourage businesses to provide for work experience partnerships with instructors in the teaching discipline areas of mathematics, science, physics, chemistry or biology.

Businesses in Kansas are in need of two workforce-related items. First, they need workers with skills in the science and math fields. Second, they understand the need to have a better understanding of the requirements of business and industry today by those teaching in the classroom, especially in the above-identified disciplines. SB 177 would help with both of these items by encouraging such arrangements.

The Wichita Chamber of Commerce, through its Business Education Success Team (BEST) has successfully sponsored a program similar to this in concept for several years. It is viewed by both the businesses as well as the educators working in the businesses, as a very positive program. This partnership between business and education has truly enhanced the workforce development efforts in that community.

There will be some, when you discuss this item, who will fear that a program such as this will only lead to a mass exodus of teachers from the classroom in those high demand arenas. That has not been the experience of the Wichita program. In fact, the program has been more positive than negative in keeping good educators in the classroom. Former KCCI staff member Jim Edwards has related he had the opportunity to

Senate Assessment + Tatation 2-21-03 Attachment 4 visit with two educators from the Wichita area, both former Kansas Teacher of the Year recipients, that have participated in the past and both expressed that this program actually strengthened their desire to stay in the classroom.

In the past, program officials from Wichita have indicated the demand by the educators wanting to participate is greater than the number of businesses that have such a program in place. Passage of SB 177 will likely spur more interest from business to participate in such programs statewide. Once again, I appreciate the opportunity to stand before you today in support of SB 177. I would be happy to stand for questions.

#### About the Kansas Chamber of Commerce and Industry

The Kansas Chamber of Commerce and Industry (KCCI) is the leading broad-based business organization in Kansas. KCCI is dedicated to the promotion of economic growth and job creation and to the protection and support of the private competitive enterprise system.

KCCI is comprised of nearly 2,000 businesses, which includes 200 local and regional chambers of commerce and trade organizations that represent more than 161,000 business men and women. The organization represents both large and small employers in Kansas. KCCI receives no government funding.

The KCCI Board of Directors establishes policies through the work of hundreds of the organization's members who make up its various committees. These policies are the guiding principles of the organization and translate into views such as those expressed here.