

MINUTES OF THE SENATE COMMERCE COMMITTEE

The meeting was called to order by Chairperson Karin Brownlee at 8:30 A.M. on February 15, 2005 in Room 123-S of the Capitol.

All members were present except:

Roger Reitz- excused
Jean Shodorf- absent
Susan Wagle- excused

Committee staff present:

Susan Kannarr, Kansas Legislative Research Department
Kathie Sparks, Kansas Legislative Research Department
Helen Pedigo, Revisor of Statutes
Jackie Lunn, Committee Secretary

Conferees appearing before the committee:

Dr. Don Norwood
Jerry Magliano

Others attending:

See attached list.

Chairperson Brownlee opened the meeting by introducing Kathie Sparks from Legislative Research to explain **SB 138** and **SB 139**. Ms. Sparks explained **SB 138** by stating the bill would establish a new tax credit against Kansas corporate income tax liability for any business that enters into a partnership agreement with the local board of education and the business employees the teacher during the months school is not session. (Attachment 1)

Ms. Sparks explained **SB 139** by stating the bill would create the Kansas Academy of Mathematics and Science which would provide an accelerated residential program for Kansas high school-age pupils who are academically talented in science and math. The two-year curriculum would include course work in math through calculus II, chemistry, biology, physics, computer science, English, history and political science, and would be at a Kansas Regents institution designated by the Board of Regents. (Attachment 2)

Upon conclusion of Ms. Sparks explanations there was discussion by the committee to change the wording to math or science instead of math and science. There was also discussion regarding the fiscal note for **SB 139**.

Chairperson Brownlee opened the hearing on **SB 139** by recognizing Senator Jordan. Senator Jordan commented on **SB 138** and **139**. He stated there was written testimony supporting **SB 138** from Marlee Carpenter, Vice President of Government Affairs for KCCI (Attachment 3). He stated there is a desperate need in our education system today of math and science teachers with degrees in those areas in our classrooms. Senator Jordan explained the origination of the bill. He stated was first decided to do this program with a Federal grant but the resources for a federal grant went by the wayside. Then the idea was to use tax credits as an alternative way to do this program. Senator Jordan said Wichita had a very informal program somewhere along these lines in place and it was called BEST. The people working with this program have stated it had been a positive program which has absolutely energized their programs of math and science. Senator Jordan urged the committee to support **SB 138** and in closing, stated **SB 138** and **SB 139** are very important to the state of Kansas.

There was discussion by the Committee about the restrictions on the type of work the math and science teacher could do. Senator Jordan stated the intent of the bill was to get a job in their related field. There was some concern teachers do all types of work in the summer. The consensus of the Committee was the bill should be amended to designate the math and science teacher would do work in their field for the employer to qualify for the grant. Senator Barone moved for a conceptional amendment on Page 2 Line 8 to add after teacher "in a business that utilizes higher skills related to math and science during the time in which school is not regularly in session". Senator Jordan seconded the motion. Motion carried.

The discussion turned to the accountability included in the bill to make sure the programs was being tracked.

CONTINUATION SHEET

MINUTES OF THE Senate Commerce Committee at 8:30 A.M. on February 15, 2005 in Room 123-S of the Capitol.

The Committee discussed the fact that the Department of Revenue tracts tax incentives. The Committee asked staff to double check if the bill needed something added on accountability. The discussion continued on quality control and work accountability and how the program in Wichita works. The Committee is still concerned the bill is too broad on the work accountability. Senator Barone stated that accountability had been addressed because the agreement had to be with the school board. The committee agreed with the school board's approval the problem of work accountability was solved. Motion to move out as amended was made by Senator Barone. Senator Wysong asked for more time to read the bill. Senator Barone withdrew his motion. The decision was to take action on this bill at a later date.

Chairperson Brownlee opened the hearing on **SB 139** by introducing Dr. Don Norwood to give his testimony. Dr. Norwood presented written copy of his presentation "Proposal For A Kansas Academy For Math and Science (KAMS) (Attachment 4) Dr. Norwood gave a review of his background and experience and the research and work he had done in regards to developing this program. In closing Dr. Norwood stated the Senate has a momentous opportunity to greatly advance science and math education for outstanding high school students and in so doing, further enhance the goals of the Bioscience Authority. Dr. Norwood introduced Mr. Jerry Magliano.

Mr. Magliano also gave a review of his background. Mr. Magliano and Dr. Norwood believe the time is right to consider their proposal to create a Kansas Academy for Math and Science, especially because of it's synergy with the establishment of the Kansas Bioscience Authority. Mr. Magliano listed the benefits of having a Kansas Academy for Math and Science (KAMS) (Attachment 4) He outlined how the program would work referring the committee to his written copy. In closing, Mr. Magliano urged the Committee to review all the attachments with his written copy and vote in support of **SB 139** stating passage will encourage similar leaders to emerge in the State of Kansas.

Upon completion of Mr. Magliano and Dr. Norwood's testimonies the Committee had discussion on several concerns. Senator Brownlee asked if there would be non-residential programs available closer to the students home to accommodate students who are active in sports and qualify for the academy. Mr. Magliano stated in larger counties such as Johnson County a residential program could be available. The question was asked if other states with this program offered residential and non residential. The response was it would be possible in a large county but in smaller counties it would not work. The discussion continued with the funding being the topic. The funding would pass through the Board of Regents from state funds. Some discussion on how the Academy works in Missouri. The Committee believes the Board of Regents and the Board of Education need to work together to develop this program. Applications would be based on geographic areas. There was also concern voiced by the Committee regarding a payback program after investing in these students. The Committee feels if this bill passes all the details need to be worked out by Department of Education and Board of Regents.

Chairperson recognized Dr. Reggie Robinson. Dr, Robinson stated this is a terrific idea if the resources are made available to do this the right way. He thinks the Board of Regents and the Department of Education working on this program makes a lot of sense. Dr. Robinson indicated he had some concerns about the willingness of people to move away and spend two years academically in an academy located out of their community. He suggested some changes in language.

Upon completion of Dr. Robinson's statement, Chairperson Brownlee closed the hearing on **SB 138**.

Meeting adjourned at 9:33 a.m. with the next meeting scheduled for Wednesday, February 16, 2005 at 8:30 a.m. in room 123S.

Senate Commerce Committee

Guest List

Date: February 15, 2005

BART SPRAGUE	KENSINGER & ASSOCIATES
Jon Josseland	University of Kansas
Kim Mealy	HEIN LAW FIRM
Mike Huttles	KGC
Donald C. Norwood	representative self
Jenny Bogliardi	self
Tim Carpenter	cf.
Sean Tomb	Kansas, INC.
Kathleen Smith	KDOR
P BIGGS	KSC
J BUTLER	KSC
B HARMON	KSC
Bryan Smith	KTVA
TUCK DUNCAN	KS wine/spirits wholesalers
Michael White	KCPAA

SSS-

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February 11, 2005

To: Senate Committee on Commerce

From: Kathie Sparks, Principal Analyst

Re: SB 138

SB 138 would establish a new tax credit against Kansas corporate income tax liability for any business that enters into a partnership agreement with the local board of education and the business employees the teacher during the months school is not in session. This credit would be calculated as follows:

- 25 percent of the salary paid by the company to the teacher; or
- 30 percent of the salary paid by the company to the teacher if the teacher is teaching in a school district located in rural community, undeserved area, or underperforming urban area.

The tax credit could not be carried forward and could not exceed the amount of Kansas tax due.

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February 14, 2005

To: Senate Committee on Commerce

From: Kathie Sparks, Principal Analyst

Re: SB 139

SB 139 would create the Kansas Academy of Mathematics and Science which would provide an accelerated residential program for Kansas high school-age pupils who are academically talented in science and math. The two-year curriculum would include coursework in math through calculus II, chemistry, biology, physics, computer science, English, history and political science, and would be at a Kansas Regents institution designated by the Board of Regents. High school students eligible for the program would be:

- A Kansas resident enrolled in the 11th grade;
- Completed at least two years of high school with distinction in math and science by the end of the 10th grade;
- Achieved a minimum composite score of 23 on the ACT or 1100 on the SAT; and
- Demonstrated the maturity and capacity to benefit from the experience.

The Board of Regents would adopt rules and regulations for the operation of the Academy. The guidelines and procedures for the operation of the Academy are directed to address:

- Selection and admission of pupils on the basis of math and science career interests, standardized tests scores, transcripts, teacher evaluations, essays, family commitment, and personal interviews;
- Selection of faculty and faculty qualifications;
- Research, laboratory, and field trip activities;
- Extracurricular activities;
- College and career counseling services;
- College credit to be awarded;
- Preparation and utilization of manuals to be provided to high school counselors for use in advising pupils;
- Encouraging and facilitating parental involvement; and

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- Manner and method of publicizing the Academy and acquainting pupils and their parents with the benefits to be gained by attending the Academy.

The bill provides that one pupil from each of the 40 senatorial districts in Kansas are to be selected for the first two years of operation of the Academy, followed by admission of two pupils from each senatorial district for the next two years and thereafter. The pupils would be admitted to the Academy without charge for tuition, fees, or books, but would be responsible for room and board charges unless the pupils can demonstrate financial need, then room and board may be provided without charge.

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Legislative Testimony

SB 138

February 15, 2005

Testimony before the Kansas Senate Commerce Committee By Marlee Carpenter, Vice President of Government Affairs

Thank you for the opportunity to appear today and express the Kansas Chamber's support for SB 138 a bill which would encourage businesses to provide for work experience partnerships with teachers.

Businesses in Kansas are in need of two workforce-related items. First, they desperately 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 in the above-identified disciplines. SB 138, and its provisions, 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. Wichita's efforts have not given credence to this fear. In fact, the program has been more positive than negative in keeping good educators in the classroom. I have had the opportunity to 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.

You are probably asking yourself why such a program is needed when there appears to be success already. In visiting with officials from Wichita, the demand by the educators wanting to participate is greater than the number of businesses that have such a program in place. Will the passage of SB 138 help spur more interest? It most likely will and will also do this statewide. This just might be one of the most economical programs you could endorse which would enhance the "real world" effectiveness of math and science programs and the future impact they have on Kansas business.

Once again, I appreciate the opportunity to stand before you today in support of SB 138. I would be happy to stand for questions.

The Kansas Chamber, with headquarters in Topeka, is the statewide business advocacy group moving Kansas towards becoming the best state in America to do business. The Kansas Chamber and its aff Chamber Federation, have more than 10,000 member businesses, including local and trade organizations. The Chamber represents small, medium and large employe

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Attachment 3-1



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PROPOSAL FOR A KANSAS ACADEMY FOR MATH AND SCIENCE (KAMS)
TESTIMONY BEFORE THE KANSAS SENATE COMMERCE COMMITTEE
TUESDAY, FEBRUARY 15, 2005

Good Morning, my name is Don Norwood and I'm from Lenexa. I am here to give testimony as a strong positive, persistent, proactive proponent of KAMS (Kansas Academy of Mathematics and Science). My background is that of a high school math and science teacher, high school principal, and K-12 superintendent of schools, all 40+ years in Illinois. I am a product of the G.I. Bill, having earned a BS in physics/math at Illinois Wesleyan University. Later, I applied and was granted an academic year, all expenses paid, National Science Foundation scholarship (MS in math/science) from the University of Utah, Salt Lake City.

In 1984, at the Illinois State Board of Education, I was the leader of a team consisting of an architect and civil, electrical, mechanical, and structural engineers who met with the Superintendent of Schools and the Board of Education in Aurora, Illinois. We arrived, from Springfield, for a Monday evening School Board meeting where we were confronted with 175 seemingly concerned parents and voters of the school district. The Superintendent had just announced that, because of the overall declining enrollments at the three senior schools, one facility was scheduled for closure. The Superintendent introduced our group and in an unprecedented move gave us the following charge:

1. To evaluate the three high schools
2. To recommend which one of the facilities should be closed
3. To suggest alternative use for the closed facility
4. To establish reasons for our recommendation
5. To establish a cost for renovation and rehabilitation of the three facilities that meets the health - Life-Safety, handicapped accessibility, and energy conservation requirements of each facility
6. Items 1-5 were to be completed and reported to the Board of Education meeting - one month away!

Needless to say, we were busy during the next month. The resulting recommendation was to close the oldest facility and convert it to a statewide facility to house The Illinois Academy for Academically Talented Mathematics, Science, and Computer Science students. The outgoing governor of Illinois, James Thompson (recently on the United States 9/11 Commission Hearings) became the first chairman of the advisory committee and spearheaded the formation of the Academy, in Aurora, Illinois.

There are now fourteen residential public high school academies in the nation. These academies are an oasis of public school excellence available to high school students in their respective states. The academies offer a world-class education on a par with or exceeding the most expensive private schools. In my position paper entitled "Make a Difference - Leave a Legacy," I have identified, in the order of year of formation, nine of

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these states: North Carolina 1980; Louisiana 1983; Illinois 1986; Texas 1987; Indiana 1990; Oklahoma 1990; Alabama 1991; Arkansas 1993; and Missouri 2000.

On August 19, 2000 Professor Jerry Magliano and I visited Northwest Missouri State University, Maryville, to discuss the Missouri Academy for Science, Mathematics, and Computing with Dr. Russell Pinizzotto, then the Dean of the Academy. At this time the results of our visit and our reaction will be presented by Jerry...

Thank you Don. My name is Jerry Magliano. I am an Information Systems Professor at Johnson County Community College. I have twenty years experience as both a college faculty member and administrator. As Don has mentioned, he and I traveled to Northwest Missouri State University on August 18, 2000 to discuss the Missouri Academy for Science, Mathematics and Computing with Dr. Russell Pinizzotto who was the Dean of the Academy at that time. During our visit we gathered much valuable information that could assist in making decisions about a similar venture in Kansas. Among the topics discussed were budget, sources of funding, enrollment goals, student selection process, faculty and administrative staffing, curriculum, facilities and student life activities. The Missouri Academy has now been in operation for over four years and has experienced great success with some ninety one students enrolled. It is one of fourteen such residential academies nationally. The attached article, "High school academies buck trend toward mediocrity", which appeared in USA Today on August 29, 2000 and features both the Missouri and Texas Academies is also a great source of information on this topic.

Don and I were so impressed with the air of excitement surrounding the formation of the Missouri Academy, that we approached Senator John Vratil and then Representative Lisa Benlon about the idea of creating a similar academy in Kansas. They were both very supportive and introduced bills in the House and Senate. Unfortunately, due to the State's economic condition at the time, neither bill moved forward.

Thanks to the leadership of Senator Jordan, we are back to present our proposal to the Kansas legislature to create a Kansas Academy for Math and Science (KAMS). We believe the time is right to reconsider this proposal, especially because of it's synergy with the establishment of the Kansas Bioscience Authority. Among the many benefits of KAMS, we see the following as most important:

1. The image of Kansas as a provider of world class math and science education would be significantly enhanced.
2. A diverse group of high school students from across the state would be given the opportunity to reach their full potential in the study of math and science.
3. Students from smaller school districts, which lack the instructional resources, would have the opportunity for advanced math and science education.
4. Competition among students aspiring to attend KAMS would raise the overall level of interest in math and science education.

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5. Schools with qualifying students would receive recognition for their excellence in preparing students for advanced study in math and science.
6. Talented high school students could be identified early and encouraged to remain in Kansas through scholarships and other incentives thereby reducing the "brain drain" to other states.
7. Opportunities for grants and other business/education partnerships would be created.
8. Over time, an alumni base would be created which could provide valuable financial and public relations support.
9. A source of "home grown" talent would be created to support the initiative to make Kansas a "dynamo for research" in conjunction with the recently established Bioscience Authority.
10. Great dividends will be returned to Kansas and its high school students in return for a very small investment relative to total education funding.

A proposed mission statement for KAMS would be as follows:

"The mission of the Kansas Academy of Mathematics and Science (KAMS), a residential early admission college program, is to provide an accelerated education for bright, motivated Kansas junior and senior high school students who have demonstrated an interest in pursuing careers in mathematics and science. The Academy also seeks to provide its students with the companionship of peers, to encourage students to develop creativity, reasoning ability, and self-discipline that leads to independent thought and action, and to aid students in developing the integrity that will enable them to benefit society. KAMS will form the foundation for future math and science scholars and will be a source of talent for science and biotechnology initiatives to be undertaken in the State of Kansas."

High school students taking college classes in the State of Kansas is nothing new. They do so now through the College NOW and Quickstep programs both of which receive state funding. What would be new is the establishment of a high visibility institution which would give students who demonstrate exceptional interest, aptitude and achievement in math and science a true college level academic environment in which their learning processes will be accelerated and their full potential reached. Even though students would be attending KAMS on a resident basis, we believe it would be best that they remain a student within their sending school district which would retain state funding for their seat as well as credit for their academic achievement. This would also make it easier for them to participate in social activities (Prom, etc.) with students in their home school districts.

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Much of the administrative staffing needed for KAMS would be to administer the student life function. While the students will be attending college level classes with college students and taught by college faculty, their time outside of class must be managed in a way which is consistent with their level of maturity and socialization. Students attending KAMS would fully intermingle with their college peers on an academic basis, but social interaction would be limited. Upon successful completion of KAMS, we believe each student should receive an Associate of Science (AS) degree which is what they would be awarded upon completion of the degree requirements at a two year community college. This would position them to begin junior level college work after graduation from KAMS

SB 139 contains the suggested procedure for selecting students to attend KAMS. We believe the approach outlined would be a fair and equitable approach for students across the state. We also believe no student should be denied the opportunity to attend because they lack the financial resources. As an example, the Missouri Academy automatically grants scholarships worth \$14,500 to each student who is a Missouri resident. Families are responsible for room and board charges of \$5,500 to \$6,000 per year, however, room and board scholarships are also awarded to families who demonstrate financial need.

In addition to the USA Today article, a number of other documents have been attached which elaborate on both the Missouri and Texas Academies. Kansas would have the benefit of learning much from what has already been done in fourteen other states. The next step should be to pass SB 139. It should provide sufficient funding for the Kansas Board of Regents to accomplish the following during the coming fiscal year:

1. Examine what has been done in other states, make site visits and formulate a model which best fits the State of Kansas.
2. Work with the Kansas Board of Education, high school teachers, counselors and administrators as well as college science and math faculty to develop an appropriate curriculum.
3. Develop and distribute an RFP to be sent to all schools in the State university system to determine which would be interested and in the best position to host such an institution. Community colleges with resident facilities might also be considered.
4. Develop admission criteria, recruiting strategies and application processes.
5. Develop an organizational structure, budget and financial plan.

The budget and financial plan developed through this process would be presented to the Legislature during the 2006 session to be considered for funding the first year of KAMS operation which would be the 2006-2007 academic year. Sufficient funding, to be determined by the Board of Regents, should also be included in this year's budget for startup costs which would be incurred before the 2006 - 2007 fiscal year.

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The establishment of each of the existing academies was made possible by a person or persons in positions of leadership, like Governor Thompson in Illinois or the President of Northwest Missouri State University, who stepped up to the plate and made it happen. Passing SB 139 will encourage similar leaders to emerge in the State of Kansas. This Senate has a momentous opportunity to greatly advance science and math education for outstanding high school students and in so doing, further enhance the goals of the Bioscience Authority. Make a difference and leave a legacy. Pass SB 139.

Thank you for giving us the opportunity to testify.

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Jerry Magliano
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Senate Commerce Committee

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Attachment

4-5

High school academies buck trend toward mediocrity

USA Today, Arlington, Va.; Aug 29, 2000; Alcestis "Cooky" Oberg;

Abstract:

The state pays for all tuition, fees and books; parents pick up room and board. The no-nonsense curriculum is focused heavily on math and science -- college-level calculus, physics, chemistry, biology -- and not many time-wasting electives. At the end of two years, TAMS kids have a high school diploma, two years of college and swarms of college recruiters offering scholarships to our great technology-oriented universities: Texas A&M, MIT, Caltech, Rice, Stanford, University of Texas-Austin, etc. One of [Russell Pinizzotto]'s own students wound up a finalist in the famous Intel Science Talent Search, the nation's top recognition for high school students' research in science.

When the idea of creating a TAMS-like academy in Missouri started, it got "tremendous support from the governor, the legislature, the departments of education, plus from superintendents, principals and parents all over the state," said Pinozzotto. Georgia, Louisiana, Massachusetts and a few other states are supporting their own enriched academies on college campuses. Indiana and Illinois have enriched high school residence programs like North Carolina's.

"They could 'adopt' TAMS or a school like it, and provide scholarships, internships in their companies, adult mentors," said Richard Sinclair, dean of TAMS. "It would be great if a corporation or a foundation could build us a new dorm, so we could house twice as many students and not have to turn so many qualified applicants away each year."

Full Text:

Copyright USA Today Information Network Aug 29, 2000

The Forum

When the new Missouri Academy of Science, Mathematics and Computing opened its doors on Monday, it became the 14th residence high school academy in the nation: an oasis of public-school excellence available to all high school kids, and one that offers a world-class education on par with or better than the most expensive private schools.

Created by intrepid legislators and fearless administrators, these 14 special boarding-school academies constitute a revolutionary backlash against the grinding mediocrity in our public-school system -- a call for re-establishing excellence in education and an obstinate bucking of the national "dumbing-down," standardized-test trend.

"The number of these academies is growing," said Russell Pinizzotto, the dean of the new Missouri Academy. "The time has come. High schools have to change."

For Pinizzotto, the creation of the Missouri Academy was a personal quest. Although he was the valedictorian from a small rural public school, he found himself handicapped with an inadequate math and science background when he got to the California Institute of Technology: "I caught up by the time I was a senior, but it made me a big believer in giving kids a strong academic background."

Pinizzotto eventually became a professor at the University of North Texas in Denton, where the

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spectacularly successful Texas Academy for Math and Science (TAMS) is located. There, he saw first-hand what smart high-schoolers can do when given the chance.

TAMS is a revolutionary hybrid high-school/college program, born in 1987 from a simple concept.

"The last two years of high school and the first two years of college are very similar," said Jim Miller, now emeritus dean of education at the University of North Texas. "Why not bring the best kids to college two years early, let them be housed in their own dorm at the university, take their courses from fully qualified Ph.D. professors and give them an opportunity to get into advanced research -- the real exciting stuff?"

Miller studied the various experiments in educating precocious and gifted kids at Johns Hopkins University and the North Carolina School for Science and Math. With good monitoring and social support, he didn't see any reason why brainy teenagers couldn't take on the intellectual challenge of college.

Eager kids came from all over Texas with great grades, fine character references and SAT scores averaging 1,281 (as high school sophomores). Far from the "elitist" stereotype national leaders have branded on "gifted" kids, around half the TAMS kids today are Caucasian and the rest are Asian, Hispanic, African American and Native American. Almost half are female.

The state pays for all tuition, fees and books; parents pick up room and board. The no-nonsense curriculum is focused heavily on math and science -- college-level calculus, physics, chemistry, biology -- and not many time-wasting electives. At the end of two years, TAMS kids have a high school diploma, two years of college and swarms of college recruiters offering scholarships to our great technology-oriented universities: Texas A&M, MIT, Caltech, Rice, Stanford, University of Texas-Austin, etc. One of Pinizzotto's own students wound up a finalist in the famous Intel Science Talent Search, the nation's top recognition for high school students' research in science.

When the idea of creating a TAMS-like academy in Missouri started, it got "tremendous support from the governor, the legislature, the departments of education, plus from superintendents, principals and parents all over the state," said Pinozzotto. Georgia, Louisiana, Massachusetts and a few other states are supporting their own enriched academies on college campuses. Indiana and Illinois have enriched high school residence programs like North Carolina's.

On the state level, the idea of building a special high school for the gifted with its own buildings, dorms and faculty might be a hard sell at budget-crunch time. But there isn't any fiscal reason why legislators in all the states can't establish a hybrid high school/ college program like those in Texas, Georgia and Missouri. Every state has multiple college campuses already, with existing dorms and faculty.

And it's not only legislatures that should get involved. TAMS was quarterbacked through the Texas legislature by the former CEO of GTE- Southwest, E.L. "Buddy" Langley, a visionary corporate adviser to the university who saw a screaming need for well-educated technical people in America and decided to do something about it.

In fact, it's incredible that most big U.S. high-tech corporations -- the biggest consumers of well-educated employees in the world -- are utterly absent from the education and cultivation of bright kids in America today. They could be and should be leading this education revolution: doing whatever they can to give our smartest kids their chance.

"They could 'adopt' TAMS or a school like it, and provide scholarships, internships in their companies, adult mentors," said Richard Sinclair, dean of TAMS. "It would be great if a corporation or a foundation could build us a new dorm, so we could house twice as many students and not have to turn so many qualified applicants away each year."

Pinizzotto of the Missouri Academy would love to see some corporate scholarships, too: "The state provides the funds for the tuition and books, but some of these kids come from poor, rural families and can't afford the room and board. I'd love to have totally equal opportunity access to this academy. And it would be a big help if some corporate leaders could meet with these kids and give them a quick seminar in Real World 101 -- what companies expect of them in the way of skills, human and technical."

Right now, there are hundreds of thousands of vacant high-tech jobs available in the United States, and that number is likely to increase dramatically in a few years.

Even though our national leaders continue to ignore the monumental inadequacy of education in U.S. public schools and seem stuck only on getting disadvantaged, slow kids through minimal-skills standardized testing, 47 U.S. public schools are stubbornly trying to hatch out the next generation of high-tech leaders: the 14 state-run residence programs plus the 33 urban magnet-type schools such as the Thomas Jefferson High School for Science and Technology in northern Virginia, the Bronx High School of Science and Chicago's new North Side College Prep.

There should be a lot more. The kids are worth it. "They're fresh, they're enthusiastic, they're smart, they're creative -- they're incredible," said Jim Miller, the co-founder of the Texas Academy. "The faculty always say the same thing: These kids are why they got into teaching."

Alcestis "Cooky" Oberg, a freelance science and technology writer in Houston, is a member of USA TODAY's board of contributors.

[Illustration]

GRAPHIC, b/w, Alejandro Gonzales, USA TODAY (Illustration)

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**Voices
of TAMSters...**



Dean's 4.0 Honor Roll, NASA intern
"Taking advantage of this opportunity to get ahead was a no-brainer – the best choice of my life."
Michael Priolo, Mission



National Dean's 4.0 List, Chemistry and Materials Science Research Scholarship "TAMS has taught me to refine my maturity and responsibility."
Adam Horch, Weatherford



National Honor Society, Academy Players President "TAMS is synonymous with opportunity. You could choose not to socialize, or you could have conversations with some of the most intelligent people you'll ever meet"
Karen Luk, Dallas



Dean's 4.0 Honor Roll, Research intern "At TAMS, you'll find your sisters, brothers, tutors, mentors, and people who pick you up on your hard days"
Amelia Villagomez, Fort Worth



President's 4.0 List "The professors are great, all the students are dedicated, and the work is challenging"
David Manny, Dallas

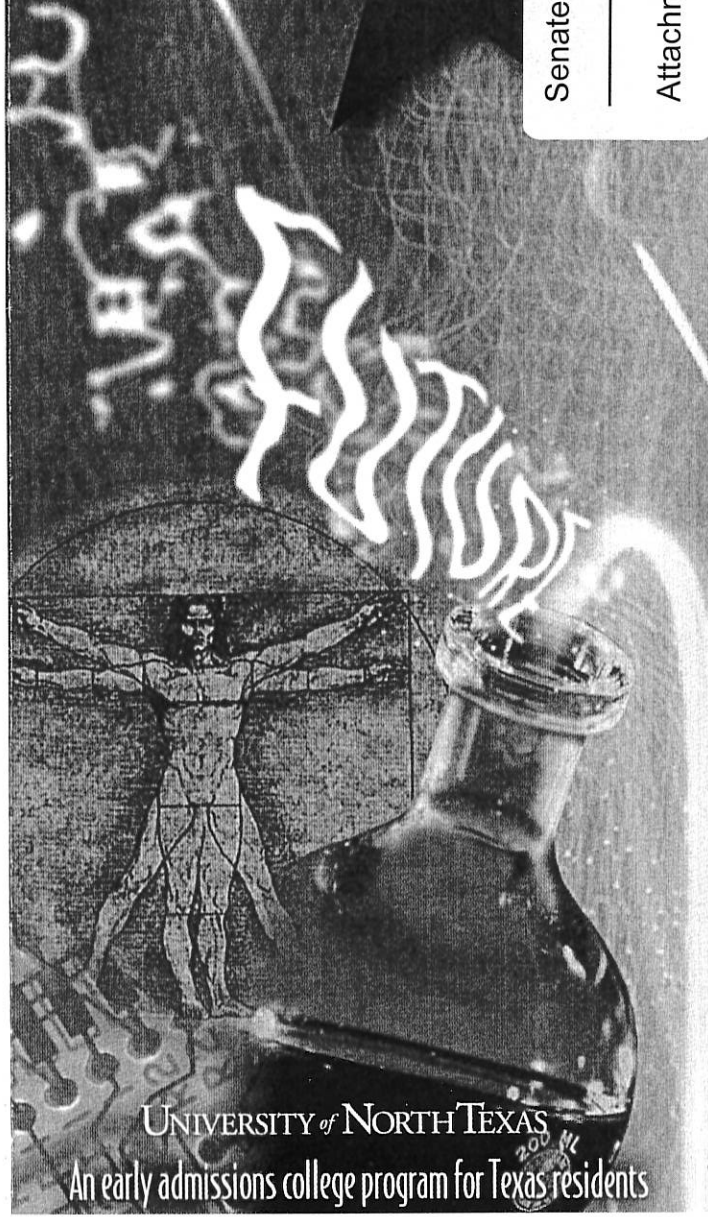
For more Information
Call the TAMS admissions Answer Line at
1-800-241-TAMS.
or
Log onto:
www.tams.unt.edu



UNIVERSITY of NORTH TEXAS
Texas Academy of Mathematics and Science
Admissions Office
P.O. Box 305309
Denton, Texas 76203-5309

Fax: (940) 369-8796
TTY callers: (800) RELAY TX
E-mail: admissions@tams.unt.edu

TAMS
Texas Academy of
Mathematics and Science



Senate Commerce Committee
2-15-03
Attachment A-9

UNIVERSITY of NORTH TEXAS
An early admissions college program for Texas residents



Texas Academy of Mathematics and Science

The Academy

The Texas Academy of Mathematics and Science (TAMS) was created by the Texas Legislature in 1987 to allow talented Texas high school students to complete their first two years of college while earning a high school diploma.

Located at the University of North Texas (UNT) in Denton, TAMS is a residential program, and serves students who wish to pursue careers in mathematics, science, and engineering.

Along with a rigorous college curriculum, TAMS provides students with the companionship of social and intellectual peers. The academy encourages students of similar age and talents to develop the creativity, curiosity, reasoning ability, and self-discipline that lead to independent thought and action.

After two years (four semesters) at TAMS, students graduate with a high school diploma and about 60 college credits – which may be enough to start the college junior year at UNT or other universities in state or out-of-state.

Academics

To prepare students for future careers in science, mathematics or engineering, TAMS has a required curriculum of UNT courses. Students must take **two semesters** of:

- general biology
- general or honors chemistry
- physics

and **three semesters** of mathematics, through Calculus II, with an option for more advanced math. The science courses are those required of science majors.

English, history, and political science are also part of the TAMS curriculum.

In addition, almost all of UNT's other courses are open to academy students for elective credit (beginning the second semester, provided they have a TAMS grade point average of 3.0 or higher).

Academic advisors help students select courses that are related to their future college majors. TAMS also sponsors workshops on study skills, time management, and test-taking. Tutors are available for all subjects at no cost.

Admission

TAMS admits up to 200 students each year from public and private high schools of every size from all across the state.

To apply, students must be Texas residents and high school sophomores. Applicants must take the Scholastic Assessment Test I (SAT I). While no SAT minimums are mandated, sophomore scores must be competitive with those of Texas college-bound seniors planning math, science, or engineering majors. Applicants also must complete geometry and Algebra II by the end of the 10th grade.

Interested students should take the SAT I as early as possible in the sophomore year. Interviews begin in December for enrollment in the fall of the following year.

Other selection criteria include academic grades from seventh through tenth grades, personal interviews, academy mathematics diagnostic tests, interest in science and mathematics, an application essay, and evaluations from three teachers and a counselor or principal. Family support also is considered.

Students can learn more about TAMS and tour the campus by attending one of six Preview Days which are held once a month during the fall and spring semesters.



For a Preview Day schedule and to make reservations, call:
1-800-241-TAMS.

For a TAMS Application, log onto:
www.tams.unt.edu

Student Life

With almost 400 students (200 juniors, 200 seniors) enrolled each year, TAMS has the social atmosphere of high school with the rigorous curriculum of college. All TAMS students live on the UNT campus in McConnell Hall, which is coed by floor, and includes study rooms, a TV lounge, a computer room, a kitchenette, ping pong table and pool table.

Conveniently located, McConnell Hall is a short walk to cafeterias, classrooms, a new recreation center and the Student Health Center. Two hall directors, assistant hall directors, resident assistants, and program assistants, each assigned to about 20 students, live in McConnell Hall with TAMS students to help them adjust to being away from home.

The Student Life staff supports some 20 extracurricular opportunities, including newspaper and yearbook staffs, Key Club, drama and music groups, and intramural athletics. More than 100 leadership positions are available through the organizations. TAMS students also may join any UNT student organization except intercollegiate athletics and social fraternities and sororities.

On weekends, TAMS sponsors dances, game nights, movie nights, community service projects, sports tournaments, as well as field trips throughout the Dallas - Fort Worth Metroplex.

One weekend each month is designated a Closed Weekend, so TAMS students may return home to visit their families. Students who are unable to return home may spend Closed Weekend with friends or with host families in Denton or the Metroplex.

Finances

TAMS pays a portion of UNT tuition and fees for all academy students each semester. However, if you are admitted to TAMS, your family must pay partial tuition, room board and provide spending money.

If you need financial aid, apply for it when you are invited to campus for Interview Day. Financial aid advisors will be on hand to assist.

TAMS provides financial aid to about one-third of its students each year.

4-10

Attachment

4-18

Senate Commerce Committee

UNIVERSITY of NORTH TEXAS