

Thomas Jefferson High School  
for Science and Technology  
Partnership Fund



*Giving to Advance Educational Excellence*



# Thomas Jefferson High School for Science and Technology (TJHSST)

A Fairfax County Virginia Public School

**The Promise:** In 1985, local businesses and public school leaders, fearing **America was falling behind in math and science**, created a new model public high school to meet the challenge –

## *Great Expectations!*

**The Vision:** “To provide a **dynamic specialized learning environment for selected students** with high ability, aptitude, and interest in mathematics, science and technology...”

**The Model:** A Governor’s Regional School for Science and Technology where 90% of students complete an original senior research project in 1 of 12 onsite Technology Labs and 10% complete their projects offsite through a Mentorship Program with government or industry

**Today:** TJHSST is recognized nationally as the best high school in America for math and science (US News & World Report, November 2007)



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***Creating a  
Community of  
Future Leaders  
from many  
sources***

**Multi-jurisdictions:**

**5 counties and 2 cities**

**Admissions:**

**Competitive Testing**

**17% of applicants admitted**

**Total population – 1,800**

**Diversity:**

**Gender: 50.6% boys**

**49.3% girls**

**Ethnicity: 50% White**

**10% Asian**

**10% African**

**3% Hispanic**

**Previous School: 89.9% public**

**12.0% private**

**Social-Economic: Diverse among population served**



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## Academic Experience

### Focus\*:

Communications  
Collaboration  
Systemic Thinking

Experiential learning  
Managing Change  
Ethics

### Published Research:

**TEKNOS**  
Major Scientific Journals

*Educating  
Future Leaders  
with a science,  
technology, and  
math focus*



\*Note: All classes taught at the gifted, honors, AP or post AP level



# Thomas Jefferson High School for Science and Technology (TJHSST)

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*What makes TJ Unique?*

## **Student Research**

**In TJ's 12 onsite Science and Technology Research Labs**

**Astronomy  
Automation & Robotics  
Biotechnology  
Chemical Analysis  
Computer Assisted Design  
Computer Systems**

**Energy Systems  
Microelectronics  
Neuroscience  
Oceanography & Geophysics  
Optics & Modern Physics  
Prototyping & Engineering  
Materials**



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**AND**

**Through TJ's Offsite Mentorship Program:**

**Seniors working in mentor's laboratories  
Solving real world problems**

**Participants include (*partial* )**

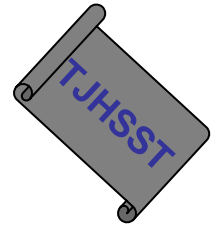
**National Institutes of Health  
Georgetown University Medical Center  
US Naval Research Center  
Smithsonian Environmental Research Center  
Lockheed Martin Corporation  
Orbital Sciences Corporation  
US Geological Survey**



# Thomas Jefferson High School for Science and Technology (TJHSST)

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## *The Caliber of TJ Students*



### SAT Scores\* :

	<u>Writing</u>	<u>Mathematics</u>	<u>Critical Reading</u>
TJHSST	<b>712</b>	<b>749</b>	<b>722</b>
Virginia	<b>499</b>	<b>512</b>	<b>511</b>
Nation	<b>494</b>	<b>515</b>	<b>502</b>



\*Total possible 800 on each section or 2400 total – College Bound Seniors 2008

*Source: College Board*

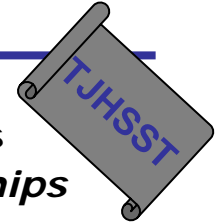


# Thomas Jefferson High School for Science and Technology (TJHSST)

## College Attendance Data:

**99% of TJHSST Classes typically matriculate to 4 year colleges**

***Class of 2008 received offers of over \$17 million in scholarships***



	2007	2008		2007	2008
Princeton	13	19	Cal Tech	1	1
Harvard	8	7	MIT	14*	8
Yale	3	5	Stanford	5	3
Carnegie Mellon	13	17	Cornell	14	9
Columbia	7	2	Oxford Univ	1	-
Duke	15	19	Dartmouth	2	1
Brown	4	6	U Penn	3	5
Tufts	1	1	U Virginia	92	99
William & Mary	40	54	Virginia Tech	35	37

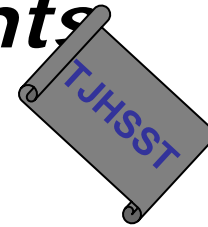
\*The highest number of students accepted from a single high school in the US



# Thomas Jefferson High School for Science and Technology (TJHSST)

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## *Student Accomplishments*



Over the past 15 years, TJHSST has earned a national reputation of excellence, exemplified in its

### Academics:

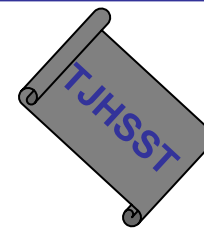
- One out of every three seniors is recognized as a National Merit Semi-Finalist (the top ½ percent of all students in the nation)
- More than 75% of the student body becomes National Honor Society members
- TJHSST students sit for almost 2,500 college level Advanced Placement Exams
- 60% of the student body enters the *U.S. News and World Reports* top 25 colleges and universities each year



# Thomas Jefferson High School for Science and Technology (TJHSST)

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## *Student Accomplishments (continued)*



### Science and Technology Activities:

- TJHSST was the first high school in the nation to be connected to the Internet
- TJHSST students are annually among the finalists in the prestigious Westinghouse/Intel Science Fair
- TJHSST Students are regularly chosen to represent our nation as members of International Olympiad teams in Chemistry, Physics, Mathematics, and Computer Science

### Other:

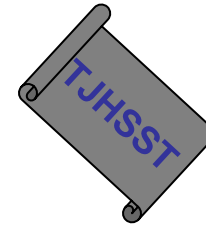
- TJHSST teachers have been honored with national Teacher of the Year awards
- TJHSST alumni have distinguished themselves in the high-tech workforce



# Thomas Jefferson High School for Science and Technology (TJHSST)

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## *Student Accomplishments (continued)*



### **Awards**

*(partial list)*

Intel International Science Fair

Intel Science Talent Search

USA Math Olympiad

USA Chemistry Olympiad

Siemen's Award for Advanced Placement

US Department of Energy Science Bowl

USA Biology Olympiad

USA Computing Olympiad







# TJHSST Partnership Fund, Inc.

## *The Business Connection*

### Current Strategic Corporate Partners



Association of Old Crows  
Banner Engineering Corporation  
Battelle  
Northrop Grumman Corporation  
Cox Communications of Northern Virginia  
Cray Inc.  
Dominion Asset Finance Corporation  
ECS Limited  
Epstein Becker & Green, P.C.  
Exxon Mobil  
Fannie Mae  
FreddieMac Matching Gifts Program  
Industry Advisory Council  
Integic Corporation

Microsoft Matching Gifts Program  
Nomadic Display Inc.  
Boeing Matching Gifts Program  
Group Systems Corporation  
Orbital Sciences Corporation  
Pfizer Inc.  
PricewaterhouseCoopers  
Raytheon Technical Services Company  
The J.P. Morgan Chase Foundation  
Thruport Technologies  
Time Warner Matching Grant Program  
US Dept of HHS – NIH  
Vibration & Sound Solutions Limited  
Sun MicroSystems



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TJHSST has **MET THOSE GREAT EXPECTATIONS** and returned the investment made in it by the business community through...

- **Bringing prominence to companies who do business in Fairfax County**
- **Serving as an attraction for technology companies and their staffs to relocate in Northern Virginia**
- **Preparing exceptional students for leadership roles in local high technology companies**
- **Serving in its capacity as a Laboratory School, to test new ideas and innovative concepts for businesses e.g., TJHSST is a Cisco Beta Test Site**
- **Establishing a standard of excellence for all other high schools**



# TJHSST Partnership Fund, Inc.

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## *TJ's Future holds more Great Expectations!*

To ensure continued preeminence in the 21<sup>st</sup> century, TJHSST must expand its partnerships with business to continue these unique and costly laboratory programs

*TJ kids are holding their own. But significant financial help is essential to maintaining our school's reputation and advancing educational excellence.*

This cost is approximately **15% greater than other** Fairfax County High Schools

## Partnership Fund Goals

- Raise \$1 million dollars each year to re-tool, re-supply, and retrain
- Add to the endowment fund to secure the future
- Encourage additional in-kind gifts
- Get more companies to participate as mentors
- Identify business leaders to serve on the board
- Encourage outside research specialists to become involved with the labs



## *Highlights of Recent Partnerships*

- Sun Microsystems donated over \$800,000 of new computer equipment
- Northrop Grumman partnered with the PF to buy several items on the Wish List
- Orbital Sciences Corporation forms a partnership so TJ students can design and build an independent satellite
- Catherine B. Reynolds Foundation donates money for Jefferson Lecture Hall technology infrastructure upgrades
- Reinsch Pierce Family Foundation donates a TJ Main Lobby interactive display for Jefferson Achievements (designed by TJ students)
- NASA Space Station hosts a live uplink with TJ students asking questions and speaking Russian to astronauts
- Epstein, Becker, Green Fund for Excellence in Health Care and Life Sciences Research provides modest grants to students in support of their research activities in health care and life sciences
- ExxonMobil enables the acquisition of an Ultraviolet/Visible Spectrophotometer to advance student research in the Chemical Analysis Lab
- The Ian Caldwell & Dustin Thomas Faculty Grant for Excellence in Drama, Foreign Language and Humanities was awarded to "Stone, Water & Water: Building a Dugout Canoe;" a Humanities I program involving 100 TJ students, beginning in September 2006



## TJHSST Partnership Fund, Inc.

***“.....Not one program of such major governmental agencies such as the NIH, the NSF, or NASA specifically targets the top 5 percent of students who have demonstrated academic excellence and have the greatest potential for becoming our inventors, creators and groundbreaking scientists.”***

**— Joann P. DiGennaro, Esq.  
President, Center for Excellence in Education  
*Washington Post*, February 10, 2007**

***Partner with us to keep TJ soaring and meeting its great expectations!***



## How Can YOU Help TJHSST?

### Corporate Giving:

- \*\* Most large corporations give millions of dollars in charity
- \*\* Corporations frequently have a matching grant program
- \*\* Introduction to the corporate official responsible for donations can be very productive
- \*\* A corporate mentor can organize the employees that have a vested interest in TJ
  - Alumni                      Research Officials
  - Parents                     Corporate Leaders
- \*\* Introduce the TJ/Corporate Research Grant Program (see separate briefing)



## How Can YOU Help TJHSST?

### Private Giving:

- Unrestricted Gifts
- Donate In-Kind Equipment/Products
- Donate Stock
  - Contact the Partnership Fund to discuss gift intentions by e-mail to [JeffersonPartnershipFund@tjhsst.edu](mailto:JeffersonPartnershipFund@tjhsst.edu) or telephone (703) 750-8316
- Donate at the Workplace
  - Give through United Way or the Combined Federal Campaign (CFC), designating the Jefferson Partnership Fund's number: **81947**
- Become a Mentor



## **How Can YOU Partner with TJHSST?**

**Corporate:**

**On-line at: [www.TJpartnershipfund.org](http://www.TJpartnershipfund.org)**

**By Mail to:**

**Gary Bottorff**

**Director, Corporate and Community Relations**

**TJ Partnership Fund**

**6560 Braddock Road**

**Alexandria, Virginia 22312-2291**

**Contact: Gary Bottorff, (703) 750-8317**