

# University-Centered Economic Development

Presented to:  
Senate Finance Committee  
September 18, 2008

Presented by:  
Martin J. Briley, Executive Director Prince William County Economic Development

Ronald Carmichael, Executive Officer, Prince William Campus



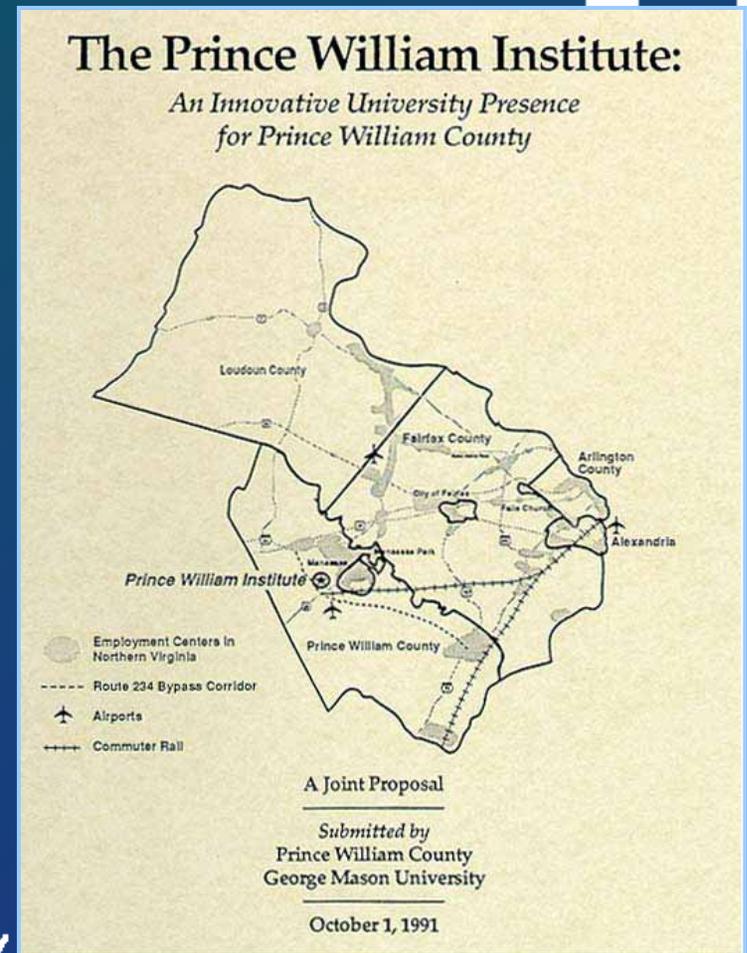
# Prince William County Facts

- **Total square miles:**  
**348** (including towns & cities)
- **Population:**  
**388,269\*** (2<sup>nd</sup> Q 2008, PWC OIT) \*estimate
- **Labor force:**  
**209,609** (Jul 2008, Virginia Workforce Connection (VWC))
- **At-place employment:**  
**103,696** (4thQ 2007, VWC)
- **Unemployment rate:**  
**3.7%** (Jul 2008, VWC)
- **Median household income:**  
**\$80,783** (Census Bureau, 2006 American Community Survey)
- **Average assessed house value:**  
**\$352,570** (All houses as of 2008, PWC DOF Office of Real Estate Assessments)
- **Adults with a college degree:**  
**44%** (Census Bureau, 2006 American Community Survey)



# A Partnership from the Beginning

- ❖ County/University Committee
  - » Joint proposal for university presence
    - ◆ Secure Political Support
    - ◆ Secure Financial Support
  
- ❖ Distributed University Model – George Mason University
  - » Unique areas of study
  - » Adapts curriculum to needs and resources of community
  - » Increases reach of campus to attract persons within commute distance of any campus
  - » Assists communities with economic and community development



# Vision

“Prince William County will be the centerpiece of a unique, multi-institution campus developed through public/private partnership...with the ambiance of a high-class corporate research park, with an attractive, core campus of roughly 100 acres, surrounded by a burgeoning development zone that will include corporate offices and headquarters, research centers, government facilities, performing arts centers and cultural amenities, and residential development.”

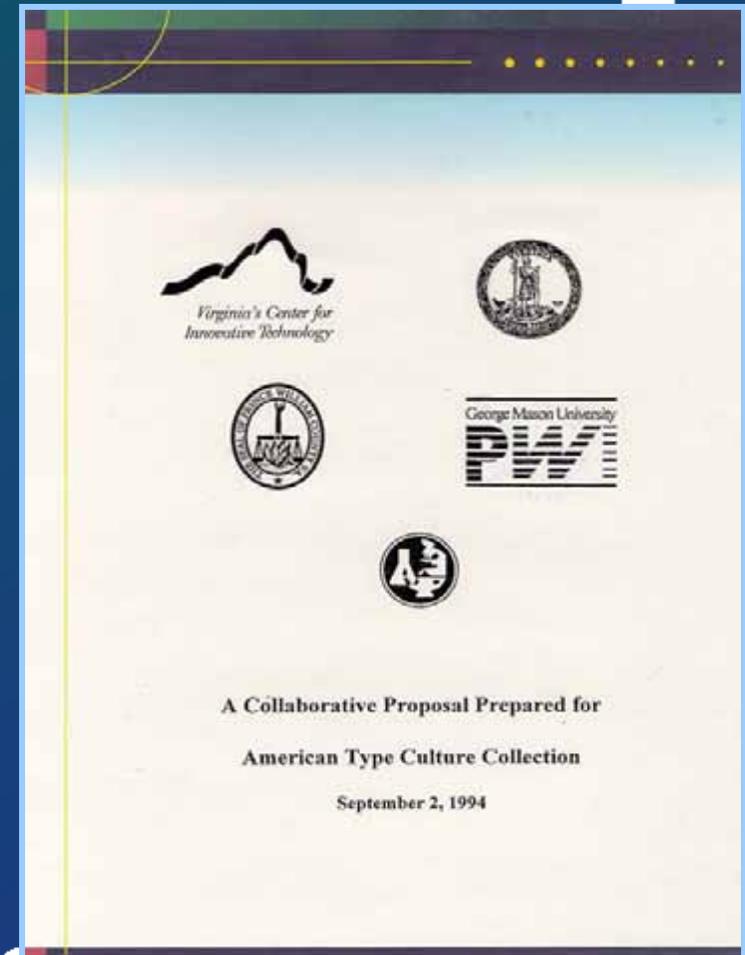
--1991 Proposal for State Funding



*1988 Aerial of recommended location for new technology park and university campus*

# Provide Means for Growth

- ❖ County acquired land for campus
  - » Four private owners donate 120 acres to the county
- ❖ Secure funding
  - » First academic building (1992)
  - » Infrastructure provided by county
    - ◆ Roads
    - ◆ Water & sewer
    - ◆ Electric
    - ◆ Fiber
- ❖ Attract stable, internationally recognized corporate anchor (ATCC)
  - » Second academic building funded as part of accepted proposal (1994)



# Adapt to Market Conditions

- ❖ Private land issues
  - » RTC
  - » Bankruptcy
  - » Market values falling
  - » Delinquent property taxes
  
- ❖ Role of county government
  - » Create technology park
    - ◆ Reconsider Public-Private Partnerships
    - ◆ Create zoning district
    - ◆ Purchase 525 acres (\$8.6 M)
    - ◆ Land sale restrictions
  - » Commission ULI study
  - » Stabilize land values
  - » Create new real estate market area



*1996 – First academic building for the GMU Prince William Campus is under construction*

# Develop New Market Area

- ❖ Market through newly created Department of Economic Development
- ❖ Provide Infrastructure
- ❖ Initial results
  - » 1998 – Initial Infrastructure
  - » 1999 – Covad, FM Tech
  - » 2000 – Astrolink, I-Direct
  - » 2001 – Avenir, Ebara, Ronbotics
- ❖ Major market changes
  - » .com market
  - » Telecom/data center market
  - » Effects of 9/11
- ❖ Political support for business model remains strong



*1999 – Mason's first two academic buildings completed, ATCC is first corporate tenant & community supported Freedom Aquatics and Fitness Center begins construction*

# Change Direction

- ❖ Emerging Market
  - » Adopt new marketing strategies
  - » Life sciences
  
- ❖ GMU restructures academic plan
  - » Science/Research
    - ◆ Biodefense
    - ◆ Cancer Proteomics
    - ◆ Applied Information Technology
  - » College of Arts & Sciences
  - » Specialized facilities
  - » Technology transfer



*2002 – Innovation begins attracting corporate clients, and anticipated growth begins near the GMU campus with two new corporate facilities.*

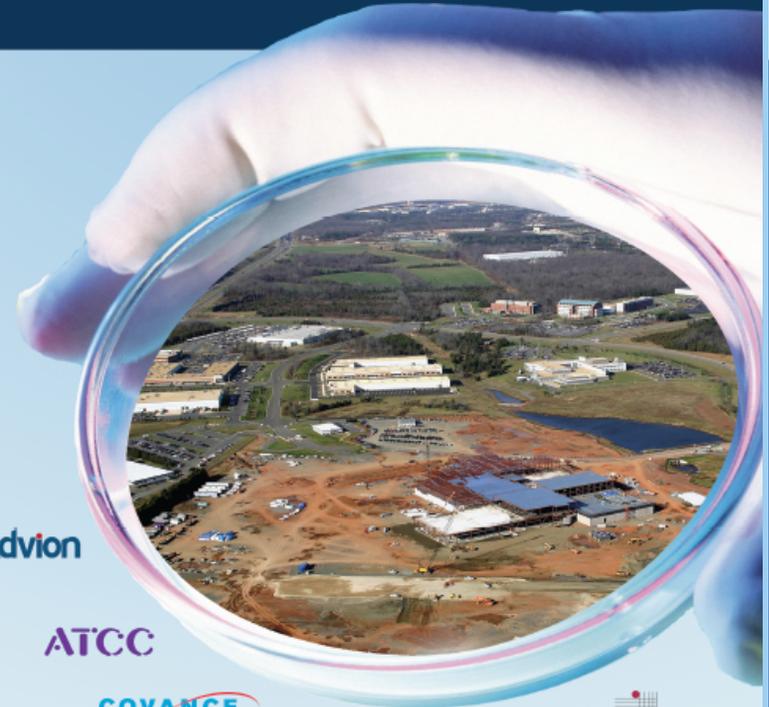
# Life Sciences in Prince William County

## Announced Projects: 1997-2008

- » 10 companies
- » \$386 mm investment
- » 1,000,000 sf
- » 1,500 jobs
- » \$90,000,000 avg. annual payroll

- George Mason University Life Science Campus
- Regional Biomedical Laboratory (Mason/NIH)
- Virginia Forensics Lab
- Covance Laboratories, Inc.
- Ceres Nanosciences
- SAIC
- American Type Culture Collection (ATCC)
- MediaTech, Inc.
- Advion
- Alexandria Real Estate Equities

## PRINCE WILLIAM COUNTY, VA



Advion

ATCC

COVANCE  
THE DEVELOPMENT SERVICES COMPANY

GEORGE MASON  
UNIVERSITY

MediaTech

**A GROWING LIFE SCIENCE  
BUSINESS CULTURE**

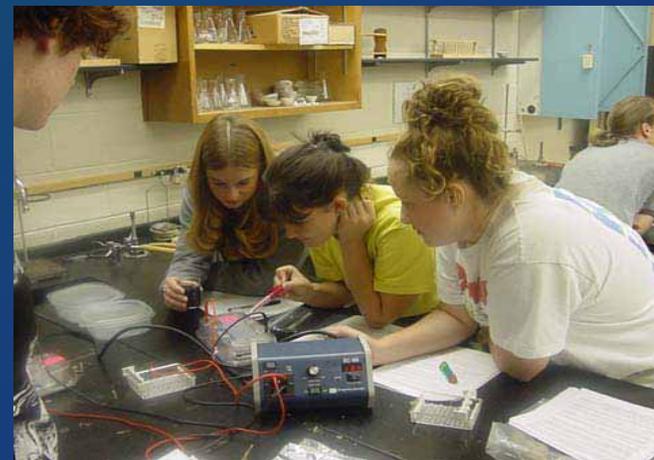
Where Technologies Converge  
**PWC**  
Prince William County, Virginia  
www.PWCEconDev.org

**PWC**  
Prince William County, Virginia  
Where Technologies Converge

GEORGE MASON  
UNIVERSITY

# Life Science Workforce Development

- ❖ Osbourn Park High School Biotech Program
  - » 750 students pursue rigorous program emphasizing broad theory & application of science to real world issues
- ❖ Aspiring Scientist Program
  - » 30+ High school students mentor with George Mason scientists
- ❖ Regional Governor's School
- ❖ Northern Virginia Community College
  - » AAS in Biotechnology
- ❖ James Madison University
  - » College of Science & Integrated Technology
  - » Biomanufacturing Program
- ❖ George Mason University
  - » Certificate, BS, MS, PhD in variety of life science disciplines

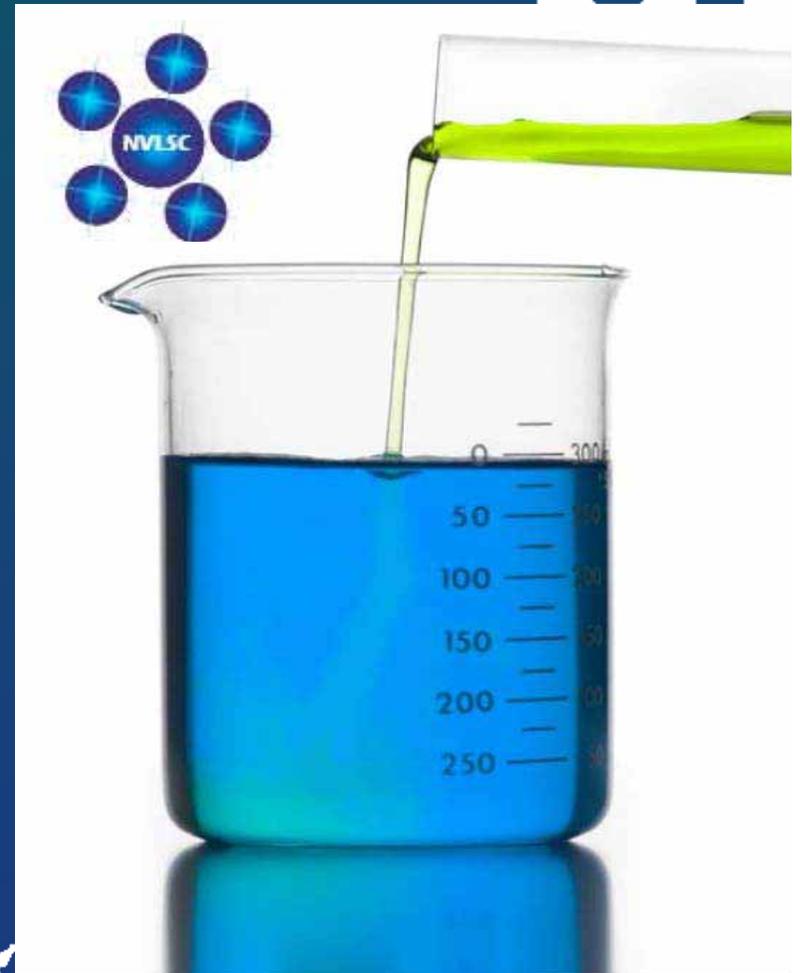


# Northern Virginia Life Science Communities

Coordinated marketing effort to promote life science in Northern Virginia

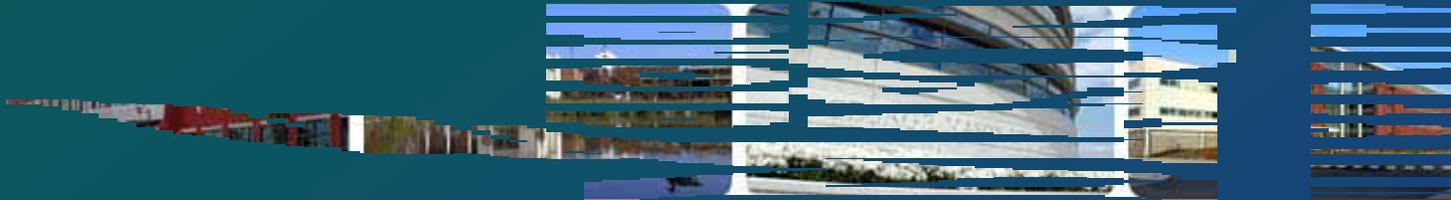
## Participants:

- ❖ Arlington County
- ❖ Fairfax County
- ❖ George Mason University
- ❖ Loudoun County
- ❖ Prince William County



# Distributed University

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- ❖ Provides **access** to university resources and programs for students & citizens who live near or within commuting distance of any campus
- ❖ Provides a conduit to enable the university to strengthen its programs and offerings by **tapping the unique resources** of the communities surrounding our campuses
- ❖ Assists the communities surrounding our campuses with **economic and community development**

# Regional Distributed Campuses

- ❖ **Fairfax:**
  - » Undergraduate, professional, administration
  - » 4,285,000 sq ft, 677 acres, 28 bldgs
- ❖ **Arlington**
  - » Law school, graduate and professional studies
  - » 405,000 sq ft, 5.2 acres, 3 bldgs
- ❖ **Prince William**
  - » Graduate life science research, undergraduate SRHT, ADJ, BSIT, nursing, regional general education
  - » 435,000 sq ft, 134 acres, 4 bldgs
- ❖ **Loudoun**
  - » Graduate & undergraduate nursing, health science, ICAR, business, social work, IT, management, regional general education
  - » 20,000 sq ft (leased building)
- ❖ **Specialized Sites**
  - » CIT - Dulles, BBSC/SciencePort - Occoquan, CRC - Front Royal and PoV - Mason Neck
- ❖ **Potential Sites**
  - » Dahlgren - UMW, Alexandria, Vint Hill, and Tyson's Corner



# Conservation & Research Center

## ❖ The Smithsonian Mason Semester

- » A 16 credit program in conservation studies based at the National Zoological Park's Conservation and Research Center in Front Royal, Virginia. This 3,200 acre facility is one of the premier conservation research facilities in the world.

## ❖ Partnership:

- » To address the need for global conservation education
- » Mason will build housing and food service facilities for over 100 students
- » Smithsonian will provide academic training and laboratory facilities

## ❖ Prepares students for careers in Conservation Sciences

## ❖ The curriculum includes:

- » Biodiversity,
- » Reproductive Endocrinology,
- » Climate Change,
- » Species Monitoring,
- » Wildlife Photography, and
- » Human Factors in Conservation



# Prince William Campus

- ❖ Prince William County provided 124 acres for campus and all “off-site infrastructure (\$30mm)
- ❖ County/City also provided 90% of debt service for Freedom Center and 70% of debt service for HPAC
- ❖ State provided funding for three academic buildings housing studies in:
  - » Administration of Justice
  - » Applied Information Technology
  - » Biodefense & Infectious Diseases
  - » Bioinformatics & Computational Biology
  - » Proteomics & Molecular Medicine,
  - » Genomics
  - » Recreation, Health & Tourism



# Prince William Campus 2008

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- ❖ Current enrollment – 4,643 seats
- ❖ New academic programs created
  - » Bioinformatics (MS, PhD)
  - » Bioscience Management (MS, PhD)
  - » Biodefense (MS, PhD)
  - » Applied IT (BS/MS)
- ❖ New research centers create
  - » National Center for Biodefense & Infectious Diseases
  - » Center for Biomedical Genomics
  - » Center for Applied Proteomics & Molecular Medicine
  - » Center of Excellence – GIS
  - » Center for Sports Management
- ❖ World-renowned research faculty



# University Master Plan



## Future Development

### 2008

- Discovery Hall Annex - Modular Vivarium BSL3

### 2010

- ARE Research Leased Labs
- Hylton Performing Arts Center
- Biomedical Research Lab
- Governor's School

### 2012

- Freedom Center Expansion
- Bull Run Hall - Phase Two
- Student Union/Library
- Physical Plant/Infrastructure
- Additional Parking

### TBD



# Mason's Research Alliances

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## ❖ Corporate Partnerships

- » ATCC
- » Verizon
- » BAE Systems
- » Lockheed Martin
- » Micron
- » Theranostics Health, LLC
- » Ceres Nanotechnologies

## ❖ State Partnerships

- » Virginia Department of Forensics

## ❖ Federal funding

- » NIH
- » NIAID
- » Dept. of Energy
- » FBI
- » Dept. of Defense
- » USAMRIID

## ❖ International Partnerships

- » ISS Italian Institute of Science

# Partnerships - Education Building the Economy

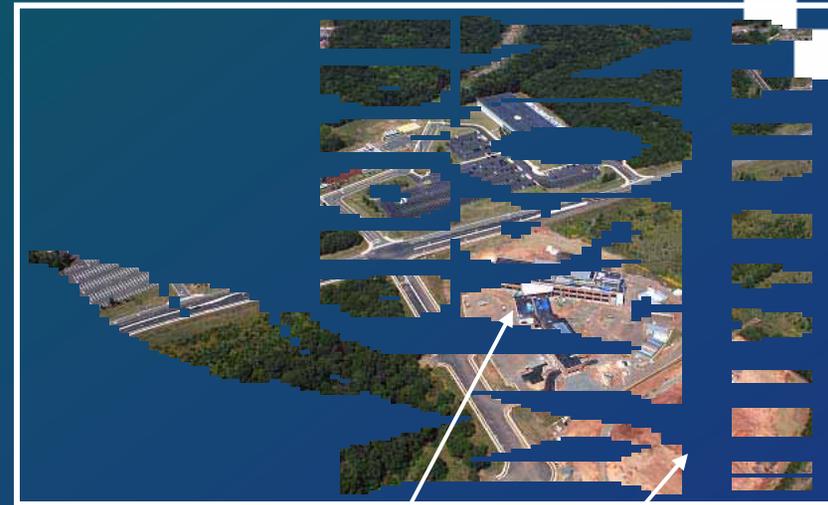
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- ❖ Northern Virginia Community College
- ❖ George Washington University
- ❖ Prince William Education Foundation
- ❖ Prince William County Public Schools
- ❖ City of Manassas Public Schools/Foundation
- ❖ City of Manassas Park Public Schools
- ❖ Cooperative Graduate Engineering Program
- ❖ INOVA – UVA – VCU – Howard Hughes Medical Institute
- ❖ SciencePort – Northern Virginia’s Science Center
- ❖ Smithsonian Institution – National Zoo – Conservation Research Center
- ❖ National Museum of Americans in Wartime
- ❖ Freedom Center Scholastic Athletics
- ❖ Matthew’s Center for Visual Learning
- ❖ Youth for Tomorrow

# Hylton Performing Arts Center



# George Mason University Biomedical Research Laboratory



## Mission

Address the National and International  
Challenges Posed by the Threat of Biological  
Terrorism and Emerging Infectious Diseases

Virginia  
Department of  
Forensic Science

Biomedical  
Research  
Laboratory



# Biomedical Research Laboratory

- ❖ **Purpose:** The BRL will contain a Biosafety Level-3 laboratory for the development of techniques and products for detection, diagnosis, prevention, and treatment of infectious diseases that result from biological terrorism or arise naturally. Research will focus on pathogens considered to be potential bioterror threats, such as anthrax, tularemia, and plague, as well as on emerging infectious diseases, such as SARS, West Nile virus, and influenza
- ❖ **Size:** Approximately 53,000 square feet
- ❖ **Cost:** \$50.5M
- ❖ **Funding:**
  - » \$27.7M - NIH award
  - » \$20.3M - Mason matching funds
  - » \$2.5M - Commonwealth of Virginia for land acquisition

# Regional Campuses - Specialized sites and Centers

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## ❖ The Regional Governor's School

- » Established by Prince William County, Manassas and Manassas Park Public School Systems, in conjunction with George Mason University
- » Focus on Science, Technology, Engineering and Math (STEM)
- » Future activity will be hosted at the Prince William Campus, with approximately 200-250 students annually
- » First junior class is projected to begin September 2010

## ❖ SciencePort, Northern Virginia's Science Center (Belmont Bay)

- » To be built at the confluence of the Occoquan and Potomac Rivers
- » A partnership with the Science Museum of Virginia to develop a hands-on science museum focused on marine science (Chesapeake Bay estuaries) with laboratories, classrooms, College of Science PEREC and GIS programs



# Students Enrolled on PW Campus

**1997**

» 272 enrolled

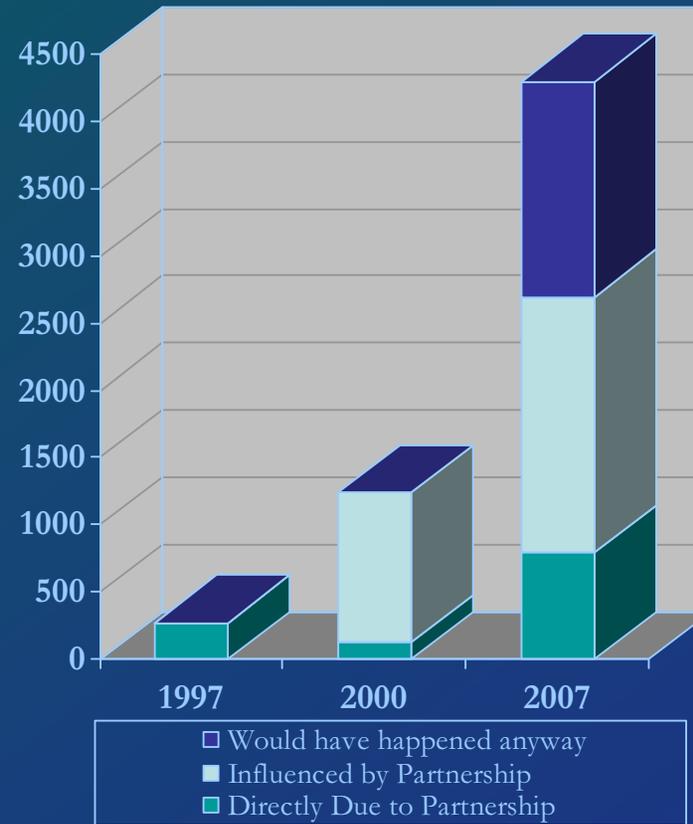
**2000**

» 1,240 enrolled

**2008**

» 4,299 enrolled

Annual Headcount



# Degrees Granted from Prince William Campus

Degrees Granted

## 119 Degrees Granted in 1997

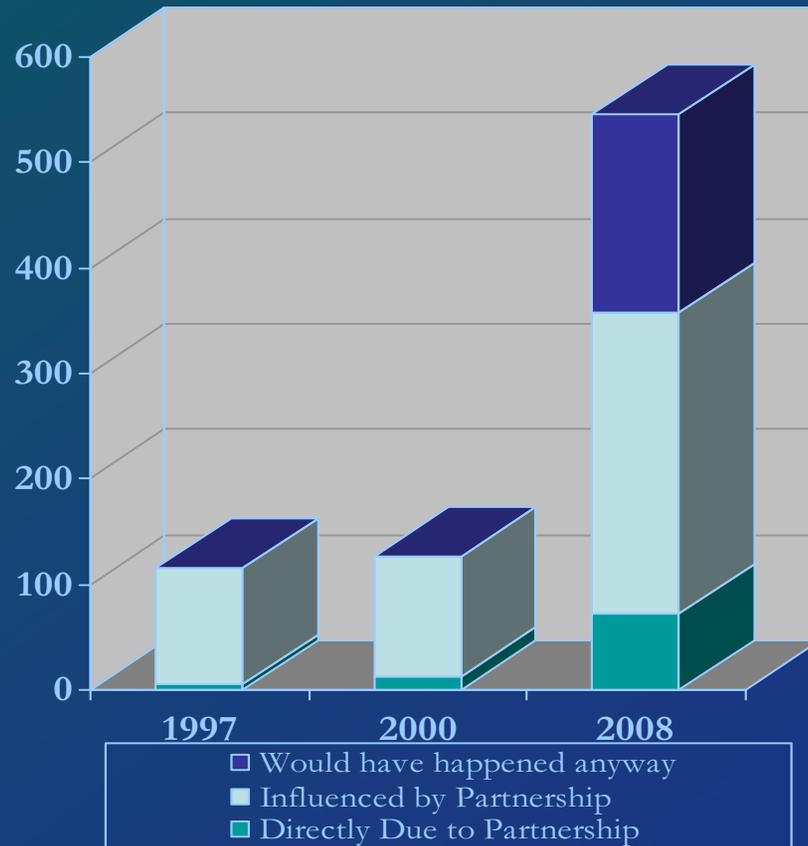
- ♦ Administration of Justice – BS (57)
- ♦ Computational Sciences/BioInformatics – MS/PhD (6)
- ♦ Recreation, Health & Tourism – BS (53)

## 126 Degrees Granted in 2000

- ♦ Administration of Justice – BS (66)
- ♦ Computational Sciences/BioInformatics – MS/PhD (12)
- ♦ Recreation, Health & Tourism – BS (48)

## 546 Degrees Granted in 2008

- ♦ Administration of Justice – BS (160)
- ♦ Computational Sciences/BioInformatics – MS/PhD (39)
- ♦ Recreation, Health & Tourism – BS (125)
- ♦ BioDefense – MS/PhD (33)
- ♦ Applied Information Technology – BS (189)



# Sponsored Research Dollars Earned

2004

❖ 2,748,244

2005

❖ \$6,455,390

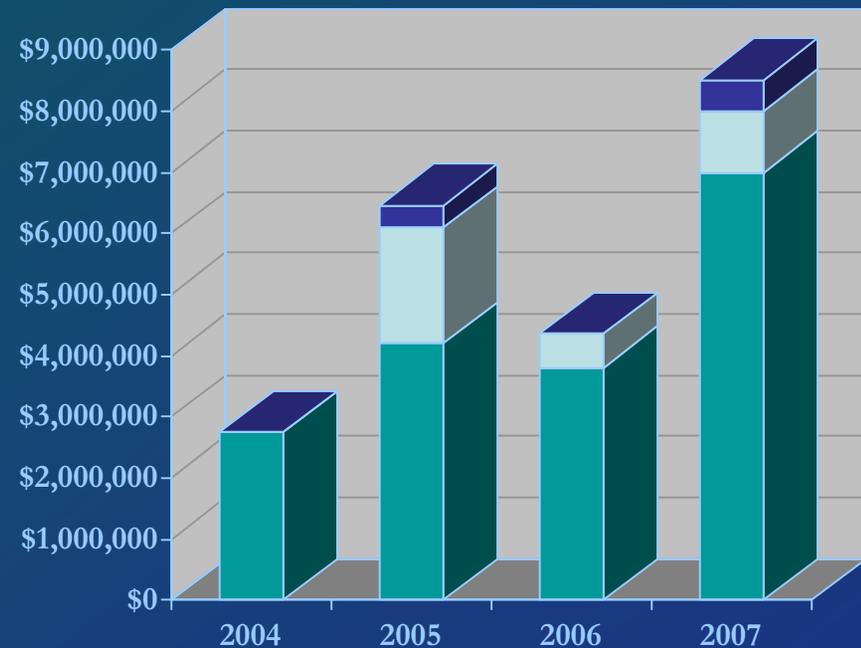
2006

❖ \$4,350,778

2007

❖ \$8,513,986

Millions of Research Dollars

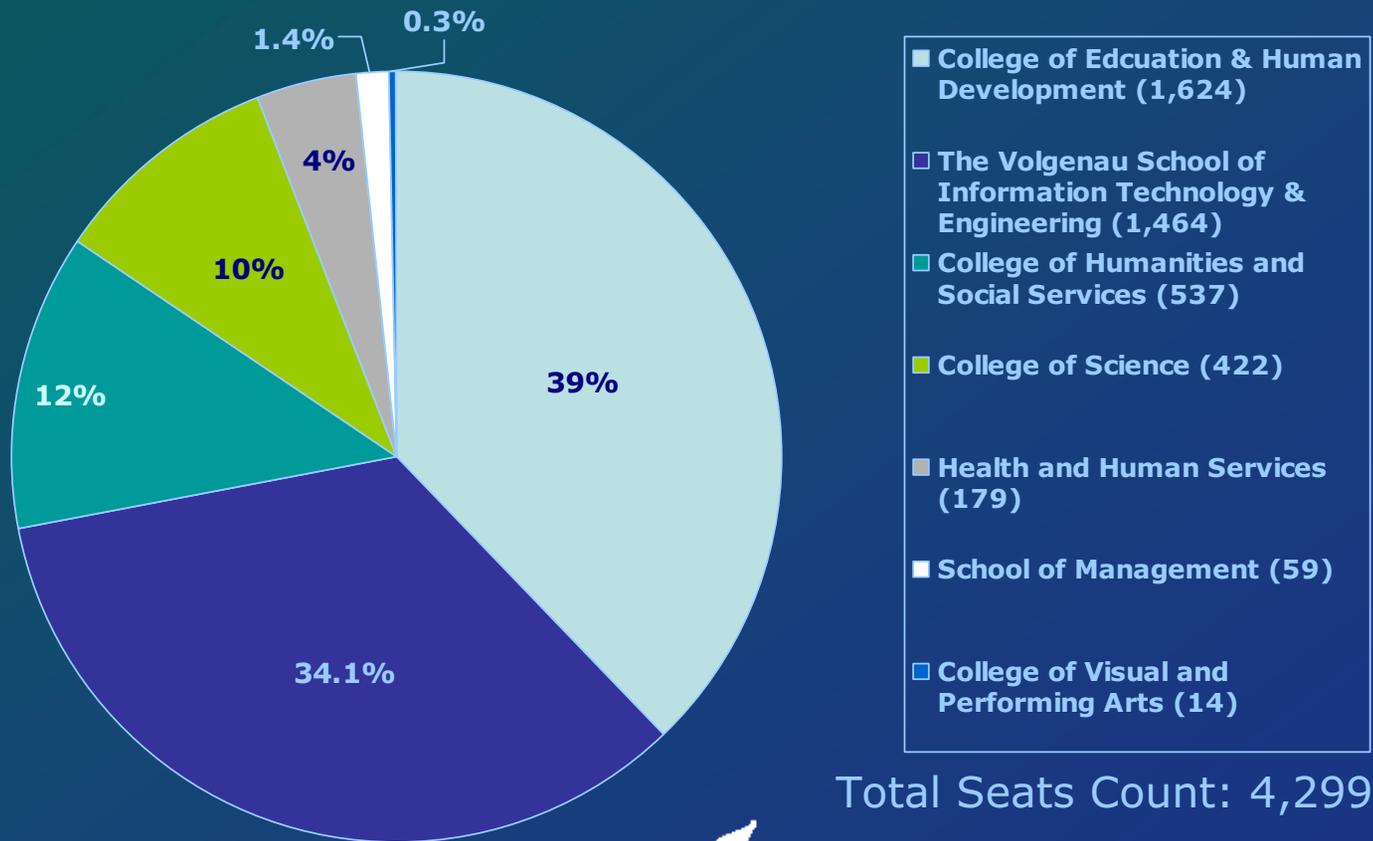


- Would have happened anyway
- Influenced by Partnership
- Directly Due to Partnership



# Enrollment Trends for Prince William Campus

## Fall 2008 Enrollment by Unit



# University of the Future

## George Mason University Tops List of “Schools to Watch”

- ❖ Selected by peers
- ❖ *Criteria:* schools that recently have made the most promising and innovative changes in academics, faculty, students, campus or facilities

**U.S. News** & WORLD REPORT

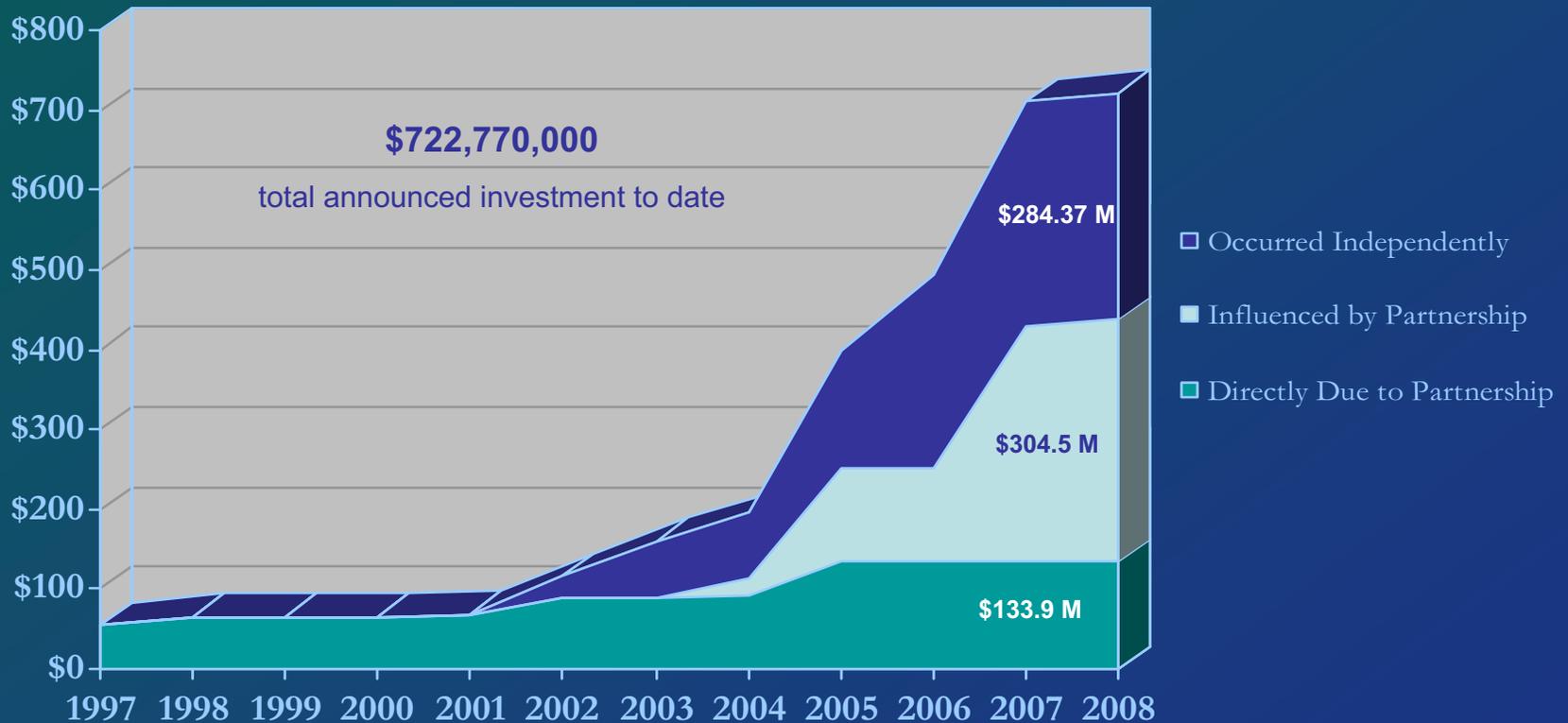
#1	George Mason University <i>Fairfax, VA</i>
#2	Clemson University <i>Clemson, SC</i>
#3	University of Southern California <i>Los Angeles, CA</i>
#4	Arizona State University <i>Tempe, AZ</i>
#5	University of Maryland--Baltimore County <i>Baltimore, MD</i>
#6	Drexel University <i>Philadelphia, PA</i>
#7	University of Central Florida <i>Orlando, FL</i>
#7	Portland State University <i>Portland, OR</i>
#9	University of San Diego <i>San Diego, CA</i>
#9	University of California--Riverside <i>Riverside, CA</i>
#9	University of North Carolina--Charlotte <i>Charlotte, NC</i>
#9	University of South Carolina--Columbia <i>Columbia, SC</i>
#9	Azusa Pacific University <i>Azusa, CA</i>
#14	Ball State University <i>Muncie, IN</i>
#14	University of South Florida <i>Tampa, FL</i>
#14	Ohio State University--Columbus <i>Columbus, OH</i>
#14	Northeastern University <i>Boston, MA</i>
#14	University of California--San Diego <i>La Jolla, CA</i>
#14	University of California--Irvine <i>Irvine, CA</i>

# Innovation@Prince William



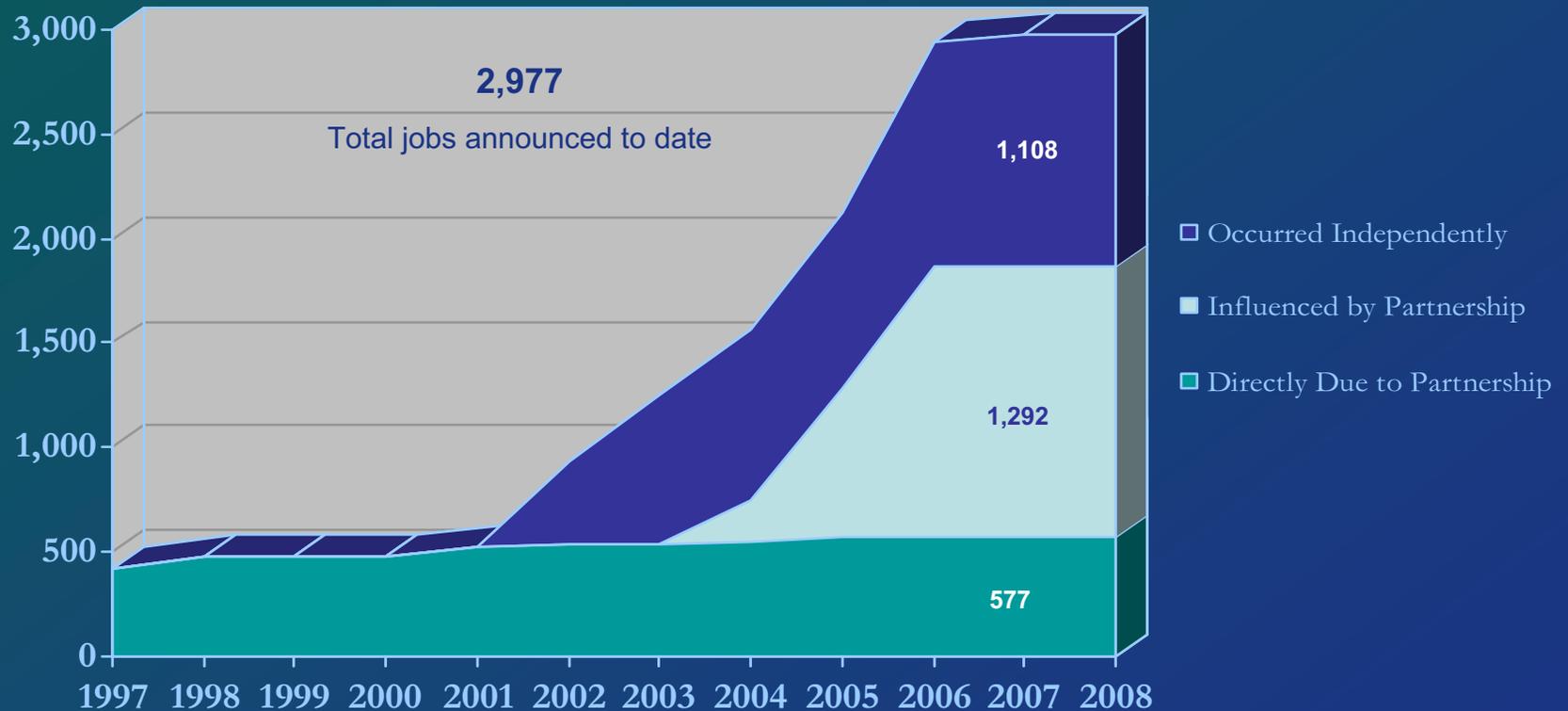
# Results – Announced Investment

38 projects announced added investment



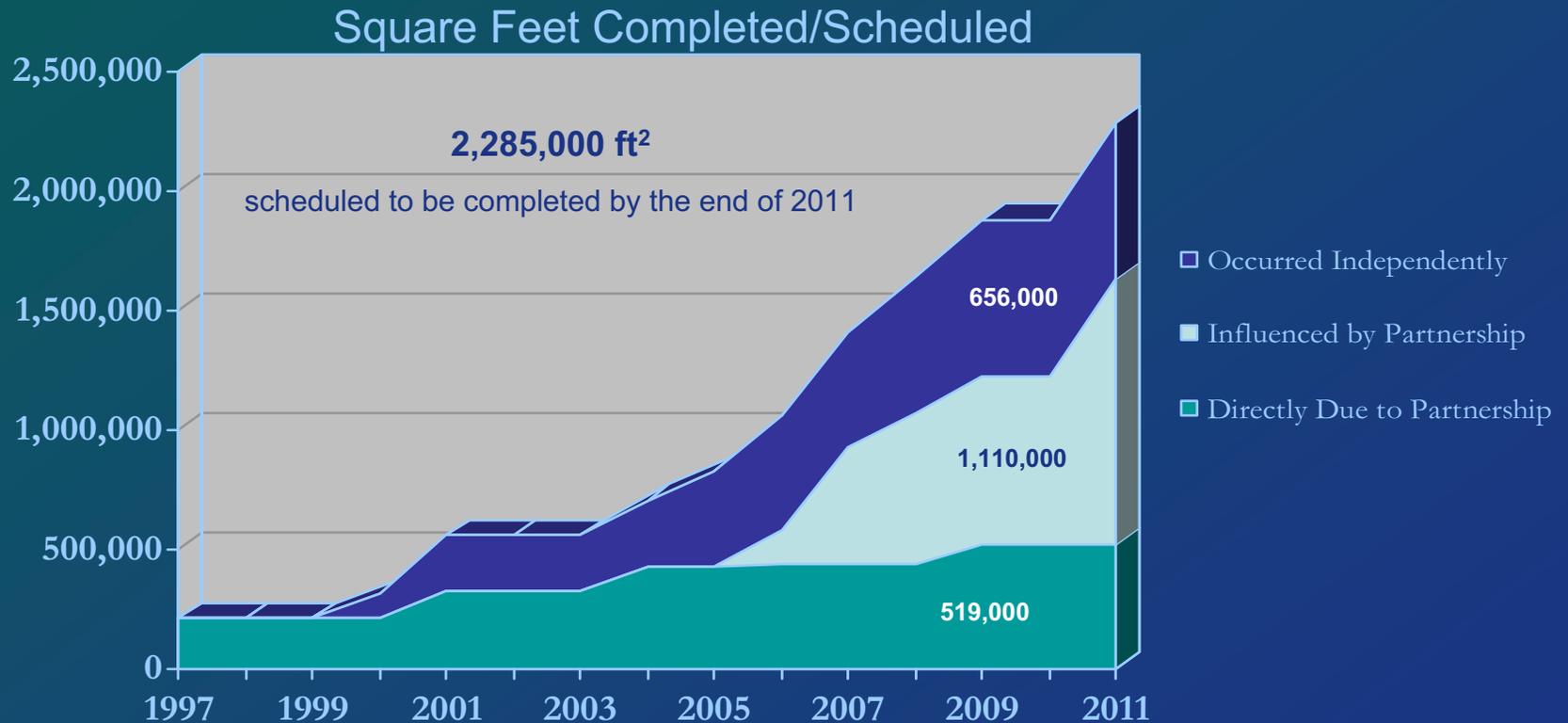
# Results – Announced Jobs

30 projects announced added jobs



# Results – Square Feet Under Roof

24 projects announced new construction



# Capital Funds Invested 1996-2008

## County Capital Funds

### Infrastructure \$52.8M

- ❖ Land Acquisition - \$8.6M
- ❖ Utilities - \$8.2M
- ❖ Roads - \$11.0M
- ❖ Future Obligations - \$25M

### P<sup>3</sup> \$77.3 M

- ❖ GMU Freedom Center - \$17.3 M
- ❖ Performing Arts Center - \$60 M

## Fed Capital Funds

### 3 Projects, \$122M

- ❖ Undisclosed - \$34 M
- ❖ Fed Gov't. T-Rex - \$63.0 M
- ❖ Regional Biomedical Lab - \$25M

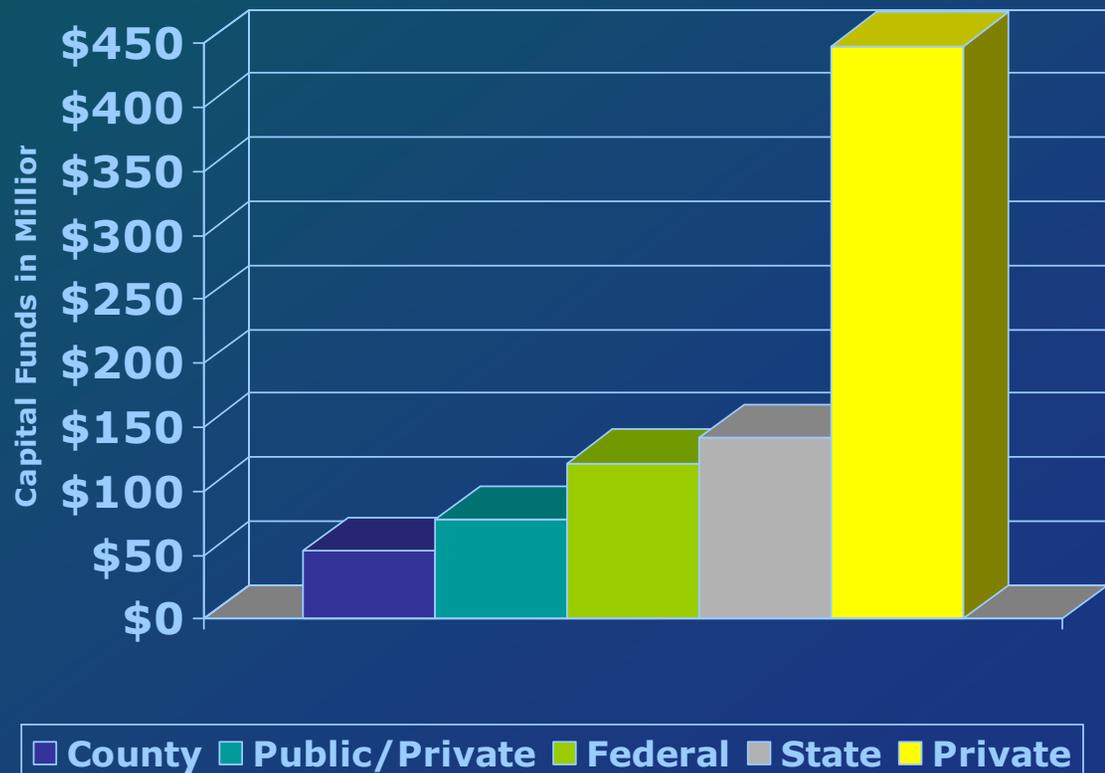
## State Capital Funds –

### 6 Projects, \$141.5M

- ❖ GMU – Bldg I - \$19M
- ❖ GMU – Bldg II - \$13M
- ❖ GMU – Bldg III - \$21 M
- ❖ VA Forensics Lab - \$63.5 M
- ❖ GMU Biomedical Lab - \$25M

## Private Capital Funds

### 27 Projects, \$448M



# Impact of GOF

## \$4.4mm GOF Yields:

1,207 jobs (582 new 625 retained) \$224.5mm investment

- ❖ ATCC – 1994
  - » \$3mm State & \$3mm PWC
  - » \$18mm, 180 Jobs Announced  
(currently \$28mm investment 375 Jobs )
- ❖ Comcast – 2002
  - » \$175,000 State & \$175,000 PWC
  - » \$21.5mm Investment Announced
  - » 300 Jobs Announced
    - ◆ 200 net new, 100 retained
- ❖ MediaTech – 2004
  - » \$400,000 State & \$400,000 PWC
  - » \$10mm Investment Announced
  - » 202 Total Jobs Announced
    - ◆ 102 net new, 100 retained
- ❖ Covance – 2007
  - » \$1mm State & \$1mm PWC
  - » \$175mm total investment announced
  - » 525 Jobs Announced
    - ◆ 100 net new, 425 Retained

### Clawbacks

#### Lilly – 2002

- » \$2.2mm State & \$2.2mm PWC
- » \$425mm Announced (\$325mm in 2005)
- » 700 Jobs Announced (350 jobs in 2005)
- » 2007 – Lilly ceases project, GOF & County Money Returned

VEDP Estimated Annual  
Revenue to VA on GOF  
projects in Innovation:

**\$5,047,606**

# County Infrastructure Costs

## 1994-1996

- » Purchase 525 acres of land (\$8,600,000)
- » University Boulevard
  - ♦ Governor's Opportunity Funds (\$790,000) \*
  - ♦ Industrial Access (\$450,000) \*
  - ♦ Secondary Road Funds (\$156,000) \*
- » Sanitary Sewer
  - ♦ Service Authority (\$52,500) \*
  - ♦ GMU (\$472,500) \*
- » Water Line
  - ♦ Service Authority (\$325,000) \*
  - ♦ Governor's Opportunity Fund (325,000) \*

## 1998

- » Freedom Center Drive (\$1,700,000)

## 1999

- » Innovation Drive (\$2,200,000)

## 2000

## 2001

## 2002

## 2003

- » University Boulevard Extended (\$2,500,000)

## 2004

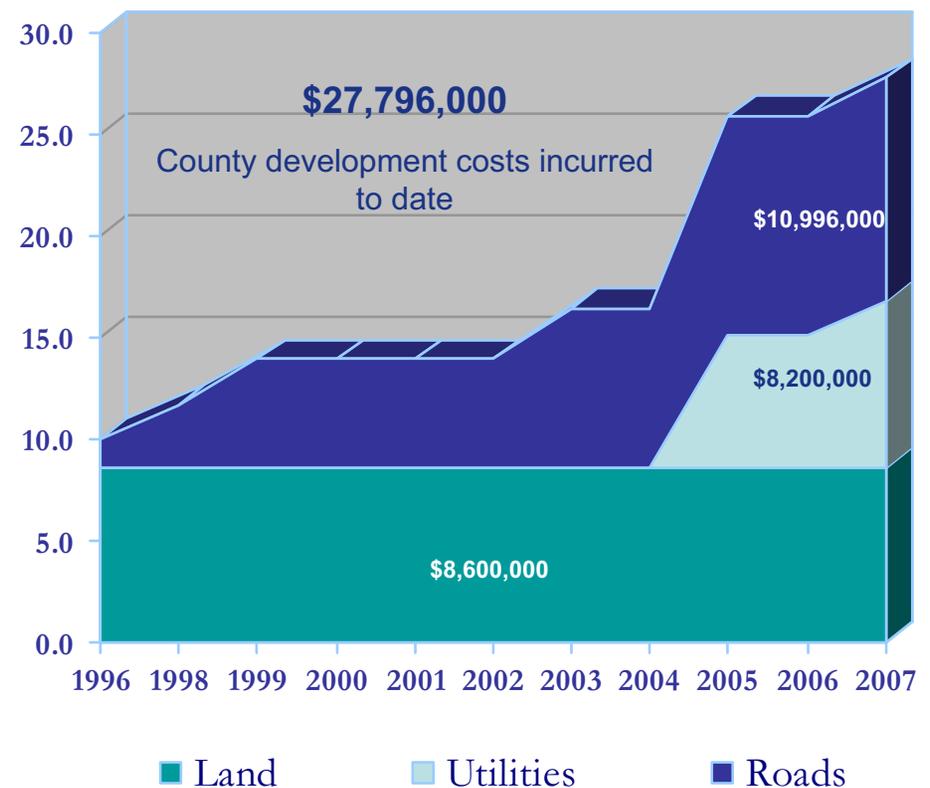
## 2005-2006

- » Discovery Boulevard (\$3,000,000)
- » Regional Storm Water Pond & Utilities (\$6,500,000)

## 2007

- » Hornbaker Rd. Design (\$200,000)
- » Utility Duct Bank Construction (\$1,700,000)

### Millions of Dollars Spent by County



\*Denotes infrastructure costs not incurred by the County

# Land Sales Activity

## 1999 (\$1,291,728.24)

- » FM Tech – 2.5 acres; \$1.10/square foot; \$119,790.00
- » Covad – 17.7 acres; \$1.52/square foot; \$1,171,938.24

## 2000 (\$784,080.00)

- » Ronbotics – 7.2 acres; \$2.50/square foot; \$784,080.00

## 2002 (\$3,563,208.00)

- » Eli Lilly & Company – 22 acres; \$2.75/square foot; \$2,635,380.00
- » LogisTech – 7.1 acres; \$3.00/square foot; \$927,828.00

## 2004 (\$5,051,871.00)

- » Buchanan – 10 acres; \$3.00/square foot; \$1,306,800.00
- » ProLogic – 4.5 acres; \$3.00/square foot; \$588,060.00
- » Assett – 3.2 acres; \$3.25/square foot; \$453,024.00
- » Mediatech – 10 acres; \$3.25/square foot; \$1,415,700.00
- » Zestron – 9.1 acres; \$3.25/square foot; \$1,288,287.00

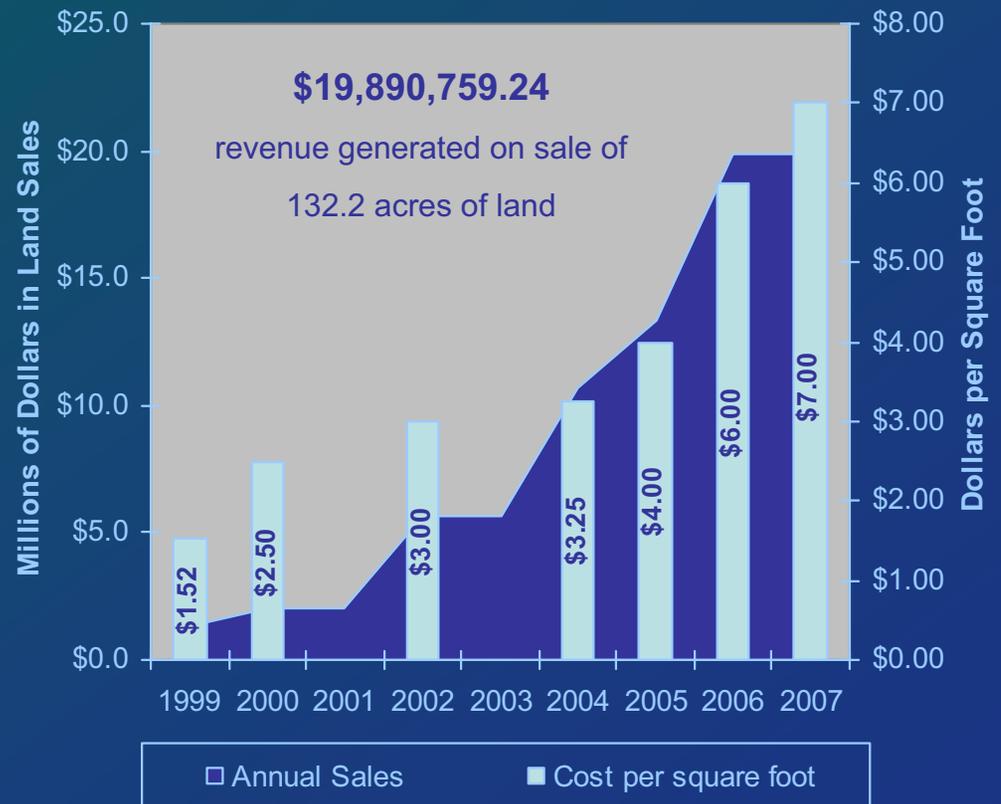
## 2005 (\$2,613,600.00)

- » GSA – 15 acres; \$4.00/square foot; \$2,613,600.00

## 2006 (\$6,586,272)

- » Buchanan – 3.9 acres; \$8.00/square foot; \$1,359,072.00 (note land cost effected by retail zoning)
- » PowerLoft – 20 acres; \$6.00/square foot; \$5,227,200.00
- » NCS – 10 acres; \$6.00/square foot;

## Revenue Activity

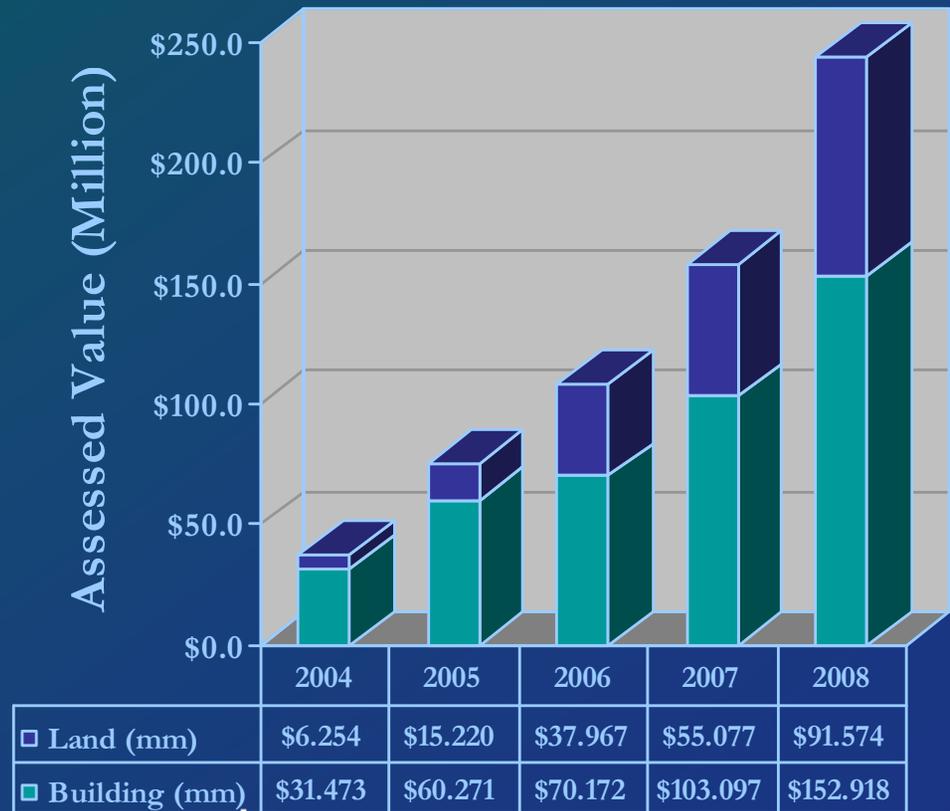


# Real Estate Assessments

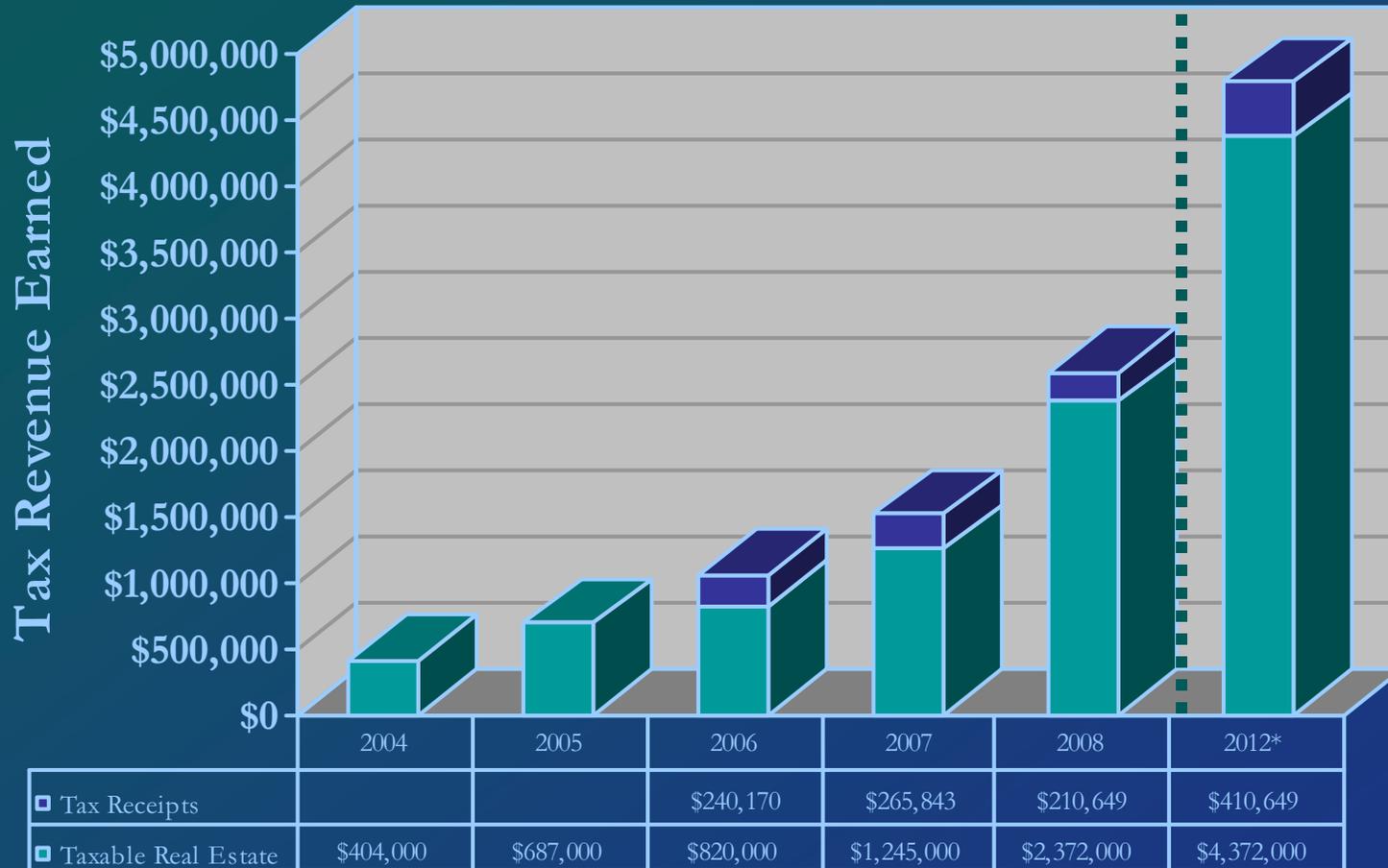
## Changes in Assessed Real Estate Values

548% increase in total real estate assessed value from 2004 – 2008

- » 1364% increase in assessed land values
- » 386% increase in assessed building values



# Increase to the County Tax Base



\*Estimate



# Achieving a Grand Vision

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“Prince William County will be the centerpiece of a **unique, multi-institution campus** developed through public/private partnership... with the **ambiance of a high-class corporate research park**, with an attractive, **core campus of roughly 100 acres**, surrounded by a **burgeoning development zone** that will include **corporate offices** and **headquarters**, **research centers**, **government facilities**, **performing arts centers** and cultural amenities, and **residential development.**”

--1991 Proposal for State Funding



# Innovation@Prince William Technology Park

