

East County Science Center
Commercial Market Analysis

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Montgomery County Planning Department
Maryland-National Capital Park and
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Executive Summary

Existing Conditions

- Existing commercial development includes an established retail center with a mix of locally owned small businesses that serves the retail needs of nearby residents, many of whom have moderate incomes. The current mix is less effective in responding to the retail needs of higher-income residents. Many current office tenants serve the needs of the local population (e.g., medical offices). Others take advantage of lower rents and free parking. A reservoir of light industrial buildings provides low-cost space for local service businesses (e.g., rug cleaning). Five hotels serve area businesses and visitors.
- The study area's commercial development is totally auto-oriented, benefiting from good road access, but it has no pedestrian-friendly activity center. Transit service is limited to buses. As such, it is vulnerable to new and existing competition that offers a superior pedestrian experience.

Economic Context for the Master Plan

- The new Food and Drug Administration (FDA) campus will employ 9,000 to 11,000 workers. Other major employers include Kaiser Permanente, Children's Hospital, Comcast and 3M Health Information Systems. If approved, Washington Adventist Hospital will bring an additional 3,000 workers to the area.
- Shady Grove/I-270 Corridor and Baltimore dominate the regional competition for life sciences companies due to their critical mass of companies and entrepreneurs, the presence of key Federal agencies and world-class educational institutions with specialized resources, availability of laboratory buildings, proximity to executive housing and a trained labor force, and local incubators.
- Aside from life sciences, the study area faces significant competition for commercial development from Silver Spring, Columbia, Konterra, a major mixed-use town center being developed adjacent to I-95 and the Intercounty Connector, and various business parks to the north.

Local Demand/Market Issues

- Recent and historical leasing trends, the lack of an existing base of life science companies and the limited number of businesses spun off from or attracted by the FDA suggest limited potentials for life science business development. Developers' needs to generate a near- and mid-term return on investment may militate against major new life science development, which would have a much longer time horizon.
- Redevelopment of White Oak Shopping Center and other area buildings would require market demand and zoning for a much higher density of high-value uses to warrant replacing the existing facilities.
- Rezoning and enhanced bus service alone would not spur major area transformation.
- Major transformation would require:
 - Attraction of a major research and/or higher education institution;
 - Provision of frequent transit service with fixed stations that significantly cuts commuting times; and
 - Mixed-use development with office, retail, housing, hotel and public spaces in a truly integrated design that encourages walking.
- The scale and nature of new development that could be leveraged by the addition of a major research or educational institution is unclear at this time.

I. Corridor History and Current Conditions

The East County Science Center master plan area has long functioned as a regional center for eastern Montgomery County, building on the access provided by U.S. 29 and New Hampshire Avenue. Developed in a suburban pattern, the sector plan and study areas (shown on Map 1 on the following page) are heavily residential with auto-oriented commercial uses. Until its closure in 1997, the Naval Surface Warfare Center (NSWC) was the White Oak area's largest employer, occupying 712 acres off New Hampshire Avenue and straddling the Prince George's County line. Adjacent to the NSWC was the U.S. Army Research laboratory (also known as the Adelphi Laboratory Center or the Harry Diamond Laboratory). Conversion of 610 acres of the NSWC to a Federal Research Center created a major campus for the Food and Drug Administration (FDA). The FDA now employs 5,500 persons on site with total employment anticipated to grow quickly, possibly as high as 11,000 jobs. The FDA's presence is changing the dynamics of the eastern portion of the county, now referred to as the East County Science Center (ECSC).

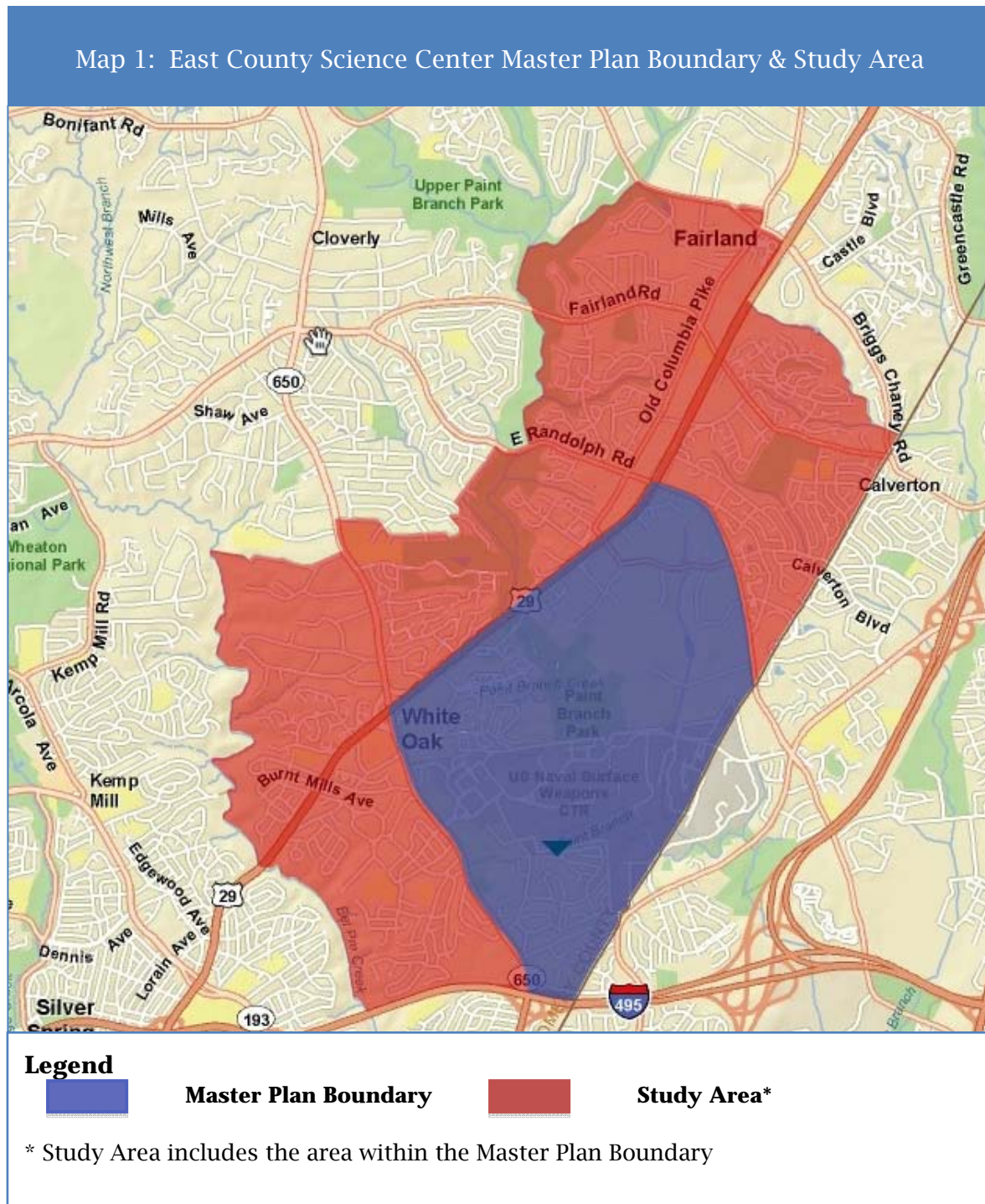
Johns Hopkins Applied Physics established a campus off of U.S. 29 11 miles north in southern Howard County in 1954, which has grown to more than 4,600 employees.

White Oak Shopping Center developed in 1959, anchored by Sears. Single-family suburban residential development along New Hampshire Avenue occurred primarily in the 1950s and 1960s, extending north along U.S. 29 into the 1970s and 1980s. The 1997 White Oak Master Plan anticipated creation of a White Oak transit center and provided zoning for higher-density multi-family development to support that transit node. Extensive multi-family development has proceeded along Lockwood Drive north and east from the shopping center. The corridor's other long-time retail center – the Hillandale Shopping Center on New Hampshire Avenue at the Beltway – has shifted its market focus through the years as different anchor stores have come and gone.

Montgomery Industrial Park began construction in the 1960s, continuing slow and steady absorption through the years.

Choice Hotels International has had a long-term headquarters presence on U.S. 29, renting space for the past 30 years. Its associated business, Manor Care, also headquartered on U.S. 29 until the mid-1990s when it purchased the former National Geographic office building to accommodate its growing workforce and moved to Gaithersburg. Choice Hotels International has announced its plans to leave the corridor for Rockville Town Center in 2013.

Verizon (then C&P Telephone) developed a major facility in the study area on U.S. 29 at Fairland Road in 1982.





With the 1967 opening and subsequent development of Columbia, U.S. 29 became an increasingly important commuter route. Over time, traffic congestion has grown steadily with extensive development in Howard County and other parts of the corridor in Montgomery County. Road improvements have upgraded the road to a limited access highway, but congestion continues to be a major issue. Implementation of the County's Annual Growth Policy and adoption of Adequate Public Facilities Ordinance (APFO) standards for the corridor imposed a moratorium on development in Montgomery County's portion of the corridor starting in 1986. Today, new development is constrained by onerous transportation mitigation requirements. Since that time Montgomery County development along U.S. 29 has been limited to projects with plans approved before the adoption of the APFO and/or those with mitigation packages of road and transit service improvements. Throughout the Montgomery County moratorium, rapid development in Howard County continued, generating even higher traffic volumes in the corridor.

Some commercial development occurred with developer-funded improvements, including intersection and road improvements as well as shuttle bus service to Silver Spring. The northern portion of the sector plan area, the former West Farm, began to develop in the 1980s with auto dealers, Home Depot and office space along Cherry Hill Road. The Orchard Shopping Center opened on Cherry Hill Road in 1996 as a major big box center, followed in 2007 by WesTech Village on U.S. 29 at Tech Road. The final West Farm parcels will be developed for a new Washington Adventist Hospital on Plum Orchard Road directly south and east of Orchard Shopping Center on Cherry Hill Road, assuming that the Maryland Health Care Commission approves the hospital's Certificate of Need later this year. The Seventh Day Adventist Church opened its world headquarters on U.S. 29 at Randolph Road in 1989.

The study area included 866 non-residential establishments with an estimated total of more than 17,700 employees in January 2010 – 2.1 percent of all county jobs. The largest employers are the FDA, Choice Hotels International and the Seventh Day Adventist Church. Other major employers include Kaiser Permanente, Children's Hospital, Comcast and 3M Health Information Systems.

The study area's housing stock and population are quite diverse with a variety of traditional single-family subdivisions, a concentration of high-rise and garden apartments along Lockwood Drive and townhouses in newer developments. Historically, the East County has provided housing that was more affordable than that developed in Bethesda and other western parts of the county.

Corridor Demographics

The Census Update Survey conducted by the Montgomery County Planning Department in 2008 reported a total household population of 35,655 persons with an average age of 37.5 years as compared with the county average of 38.1 years. Almost two-thirds of the households had only one or two persons; average household size was 2.51 persons per household. In 2007, the study area's median household income was \$75,495 – 78 percent of the county median of \$96,475. Thirty-six percent of corridor households were renters. Fifty-six percent of study area households lived in single-family structures as compared with almost 68 percent in the county as a whole. During the previous five years, 16 percent had moved to the study area from Washington, D.C., Northern Virginia or outside the metropolitan area, but 59 percent were living in the same housing unit. Median tenure in the same housing unit was seven years.

Ethnically, the East County Science Center study area population varies from the county profile. African Americans represented 39 percent of the study area population in 2008 as compared with 15.9 percent county-wide. Non-Hispanic white persons were 36.1 percent of study area residents in contrast with their 53.7-percent share in the county as a whole. Forty-two percent of the population five years or older spoke a language other than English; 11.8 percent spoke English less than “very well.”

The study area population aged 25 and over is highly educated with 33.6 percent holding advanced degrees and 63.3 percent having at least a Bachelor's Degree. This compares with 37.0 and 66.2 percent, respectively, among county residents. More than one of four employed residents (27.4 percent) worked for the government; 37.7 percent worked for private, for-profit businesses, and 14.1 percent worked for non-profit organizations. Almost one-half worked in Montgomery County with 23.7 percent working in Washington, D.C. and 13.4 percent working in Prince George's County. Three-quarters drove to work alone while 21.5 percent took public transit or carpooled. Demographic information is summarized in Appendix Tables A-1 through A-3.

II. Development Context

The current vision for the East County Science Center is development of a science and technology employment node that builds upon the growing presence of the FDA and the anticipated presence of Washington Adventist Hospital, supported and complemented by mixed-use development. This section evaluates the experience of other such technology districts and applies the lessons learned to the ECSC prospects. This evaluation is followed by a review of competitive developments and an assessment of the overall development context.

Lessons Learned from Analogous Development Districts

The experience of other research districts and research or technology parks provides insights into the potentials for the ECSC. Since Research Triangle Park and Stanford Research Park were developed in the 1950s and 1960s, research parks have proliferated. As of 2007, Battelle Memorial Institute and the Association of University Research Parks (AURP) estimated that university research parks in North America comprised more than 47,000 acres, of which 22,000 acres were developed with 124 million square feet of building space.¹ Based on a survey of 134 North American university research parks, the typical park includes 114 acres with 30 acres developed in six buildings of roughly 314,000 square feet – roughly 30 percent of the total development capacity.² Beyond organized research parks affiliated with universities, there are many other business parks that emphasize technology-based companies as well as informal clusters of technology companies that have developed over time, including Silicon Valley.

University Connections

Direct university connections are an important factor in research parks' success. Tenants are seeking close affiliations with the university, primary among which is access to the graduate student workforce. Other connections include:

- access to library-information services, high-speed Internet, specialized equipment, animal-care facilities, hazardous materials handling, recreation facilities, tickets to athletic events and other university privileges;
- collaborations with university faculty and research staff;
- a university address for added prestige;

¹ Battelle Technology Partnership Practice, Characteristics and Trends in North American Research Parks: 21st Century Directions, October 2007, 4
<<http://s3.memberclicks.com/site/aurp/FinalBattelle.pdf>>.

² Ibid, 5.



- adjunct faculty appointments for company researchers; and
- the opportunity to interact and exchange ideas with faculty, researchers, post-docs and graduate students.

The lack of a direct university relationship is a major competitive disadvantage for the ECSC. Proximity to the FDA may offer some of the advantages of opportunities to interact with FDA doctors, scientists and regulators; however, those opportunities are not restricted to ECSC companies but are available to the same degree to any technology company. A well-trained, available labor force is the number one reason that technology companies seek out research park locations³ and companies value access to graduate students. The ECSC offers no greater benefit of access to a well-trained labor force than do other Montgomery County locations except for greater proximity to graduate students on the University of Maryland College Park campus.

Business Incubators

Increasingly, research parks are emphasizing business incubation and support for growing firms over recruitment and attraction of major tenant companies. Providing technical assistance in business planning, marketing, finance, legal and other entrepreneurial issues is a key function of many research parks. Informal support and mentoring occur among park tenants as they give each other tips about accountants, attorneys, etc. More formal networking and mentoring programs help to introduce entrepreneurs that may become suppliers, customers or collaborators, providing important access to business circles.

With significant public funding support, a business incubator could be developed at ECSC. Effective bioscience incubators currently operate in Montgomery County (Shady Grove and Germantown) as well as in College Park, Baltimore and elsewhere. All receive financial support from local government because the mission involves serving start-up companies with limited financial resources.

Development Funding

Most all research parks are developed with major infusions of capital from state and local governments, universities and non-profit business organizations or foundations. The land is often contributed by the university or its associated foundation. In the case of the Universities at Shady Grove, the land was donated by the Gudelsky family. Public monies typically fund the park's infrastructure and often the early years' operating expenses. The university is often a tenant of last resort, stepping in to fill available multitenant building

³ Ibid, 22. Eighty-five percent of park directors rated this location factor as having high importance or very high importance.

space if private tenant leases do not materialize on schedule. With that backup commitment, private investors are much more willing to finance speculative building.

A key reason for public involvement in research parks is that park development typically requires 10 to 20 years or more and occurs at a much slower pace than the private sector requires to achieve an adequate return on investment. Battelle reports that one-half of the research parks surveyed generated no retained earnings above operating expenses in the previous five years, and only 25 percent generated retained earnings of 10 percent or more of their operating budgets.⁴

Multitenant Buildings

Provision of space for prospective tenants is a critical factor in the success of a research park. Few companies have the lead time or the capital to develop their own buildings. Most rely on leased space in multitenant buildings. Failure to provide available space is a major competitive handicap. However, private investment in a multitenant building can be a risky venture in an unproven market. For biotech and other life sciences companies that depend on wet laboratory facilities, this is a particular problem. The cost of building such space is easily 50 to 100 percent or more over the cost of a non-lab building, exacerbating the risks. Montgomery County is very fortunate in having developed the critical mass of biotech and life science companies in the I-270 corridor and an inventory of laboratory facilities to serve these companies. To date, none of the area's major developers of lab space have developed facilities in the ECSC or indicated interest in doing so.

Key Success Factors

The Battelle survey of research park directors identified key internal success factors:

- the ability to offer space that is cost competitive with privately developed alternatives in the region;
- availability of multitenant space for incubator graduates;
- availability of a formal business incubator; and
- physical proximity to main university campus.⁵

The key external success factors for research park development were ranked in the following order of descending priority:

- acceptance by the local economic development community;
- commitment of university leadership;

⁴ Ibid, 11.

⁵ Ibid, 13.



- access to capital to construct buildings;
- good match between core competency of the university and cluster strategy in tenant recruitment;
- access to equipment capital sources for park tenants;
- capacity to assist early-stage companies in commercialization;
- priority access to university resources, facilities, faculty and students; and
- attention to metrics and success stories.⁶

Increasingly, the research park model is evolving to a mixed-use campus that accommodates both university and private businesses, often sharing space with supportive restaurants, retail, housing and hotels. This mix of uses helps to create a sense of place, continuous activity, and opportunities for meaningful interaction between academic researchers and local entrepreneurs and businesses.

Federal Anchors

Development of research or technology parks with major Federal agency anchors is more rare than parks with a university anchor. In recognition of their potential importance for creating technologies with commercial applications, the Federal government has encouraged technology transfer from the Federal laboratories. Local governments and business communities have in some cases developed research parks to take advantage of transfer of technologies to the private sector and to serve suppliers and contractors attracted to support the Federal lab.

Los Alamos National Laboratory (LANL) in northern New Mexico is operated for the Department of Energy (DOE) by the University of California, which has been required to undertake economic development initiatives to benefit the surrounding region. Included among those initiatives was establishment of the Los Alamos Research Park and a small business incubator by the Los Alamos Commerce and Development Corporation (LACDC). DOE leased the 44-acre parcel to Los Alamos County, which made it available to LACDC for development. The County, the U.S. Economic Development Administration and the Regional Development Corporation provided \$2.6 million in grants. Local and state banks provided an additional \$11 million in loans for its development. The park's first tenants were a Motorola Corporation high-computing center and LANL's Superconductivity Technology Center. Since its opening in 2001, the research park has developed one building with 83,000 square feet of office and laboratory space and attracted 16 entities. LANL offers an entrepreneurial leave program whereby employees can take up to three years of unpaid leave to work with technology firms developing LANL technologies or

⁶ Ibid, 13.



expertise. Its Technology Maturation Fund also provides financial awards to support development of emerging LANL technologies.

Another DOE entity in New Mexico, Sandia National Laboratories (SNL), is operated by Lockheed Martin. SNL, DOE, Technology Venture Corporation (TVC) (a Lockheed Martin subsidiary), and the City of Albuquerque established the Sandia Science and Technology Park in 1998. Public investment in the park has totaled \$68 million. Adjacent to Kirtland Air Force Base and SNL, the park's 200 acres were owned by the City, the State, DOE and other organizations. Park tenants are required to have a relationship or a potential relationship with SNL or another park tenant. The park has attracted 29 companies with more than 2,100 employees, accommodated in almost 900,000 square feet of space in 18 buildings on 67 acres.

The FDA differs from these Federal laboratories in that its regulatory role overshadows its direct scientific discovery. Though the FDA does generate innovations suitable for commercialization, these are most often pursued through Cooperative Research and Development Agreements (CRADAs) with businesses, universities and other organizations that have specialized expertise and often have their own facilities elsewhere. For example, the FDA's Center for Biologics Evaluation and Research (CBER) partnered with PATH, a Seattle-based international non-profit, to use CBER's technology in advancing development of a vaccine to protect children against pneumonia and related diseases. CBER also entered into a CRADA with Pharsight, a software development company, to refine a computer-assisted trial design technology designed for "virtual clinical trials."

Competitive Framework

Office space in the study area faces a wide ranging set of competitors. The largest cluster of Class A space is in Downtown Silver Spring, which offers Metro and Beltway access with a full range of amenities and a walkable environment. Downtown Columbia offers a similar experience to the north but does not benefit from good transit service. Business parks throughout Columbia and Howard County provide a quality business environment with flex office space and easy access to I-95 and U.S. 29; however, they tend to be single-use developments with minimal amenities. Montpelier Research Park on U.S. 29 in Howard County has attracted Verizon Wireless and other companies to a location near the Johns Hopkins Applied Physics Laboratory. In Montgomery County, new competitive development along U.S. 29 is and will continue to be extremely limited due to congestion limits imposed by the Adequate Public Facilities Ordinance and the limited transportation capacity available in the corridor.



The most significant emerging competitive threat is the new Konterra development between I-95 and U.S. 1 in Prince George's County. The new Town Center East will include a mixed-use development of 12 million square feet with major retail facilities, offices and housing with a new interchange on I-95 and access to the Intercounty Connector. The office development is expected to focus on corporate offices taking advantage of visibility from I-95; however, Konterra may compete with the study area for life science companies that are more office- than lab-based. Opportunities to extend Metro's Green Line to Konterra over the long term have been discussed. Creation of that transit link would greatly enhance Konterra's ability to compete.

Competitive Life Science Locations

Life sciences companies choose a location across a wider geographic area due to unique location criteria and their specialized needs for laboratory space and support services. Depending on the nature of their business, life science companies tend to favor locations that can offer:

- a cluster of similar companies, suppliers, customers and collaborators;
- access to a research university and/or research institution;
- access to key scientists and executives;
- access to a technical labor force (e.g., scientists, graduate students, technicians);
- available laboratory and other specialized facilities (e.g., vivarium, scale-up production facility);
- transportation access (auto, transit, air);
- proximity to a research hospital; and
- a supportive business climate with economic incentives and appropriate zoning provisions.

In the Washington/Baltimore area, nine areas have been most competitive for technology and life science companies: the Great Seneca Science Corridor, Rockville/Twinbrook and Frederick County in the I-270 corridor; the Science + Technology Park at Johns Hopkins and the University of Maryland Biopark in Baltimore; M Square Research Park in College Park; bwtech@UMBC in Catonsville; various business parks in Columbia/Howard County; and the Dulles Toll Road corridor in Northern Virginia.

Montgomery County hosts approximately 60 percent of Maryland's biotechnology firms, primarily in the Great Seneca Science Corridor and Rockville/Twinbrook with a smaller number of firms in Bethesda. The National Institutes of Health have been a major impetus toward development of a nationally recognized cluster of biotechnology and other life science companies. Investments by Montgomery County developed the Shady Grove Life Sciences Center with the Shady Grove Center for the University of Maryland and facilities



for Johns Hopkins University's Montgomery County Campus. MedImmune and Human Genome Sciences have flourished in the area, developed major facilities and spawned several new ventures headed by former executives and scientists. The National Cancer Institute is now proceeding to develop a 575,000 square-foot facility on the JHU Montgomery County Campus. Johns Hopkins later acquired the Belward Farm, which it plans to develop as a major research campus integrated with private industry.

Relocation of the Food and Drug Administration to the White Oak Federal Research Campus will free up office space for other users. In the near term, however, several FDA leases have been extended in and near Rockville.

The I-270's corridor's concentration of bioscience companies and their suppliers, investors and service providers is the area's greatest strength in competing for more bioscience companies. Professor Steven Casper at the Keck Graduate Institute of Applied Life Sciences in Claremont, California emphasizes the overwhelming importance of rich social networks connecting scientists, entrepreneurs, managers and venture capitalists in building a biotechnology cluster, drawing on his extensive research with the biotechnology industry in San Diego.⁷

Frederick County has benefited from northward expansion of the I-270 bioscience cluster, offering lower cost land and facilities, particularly for manufacturing operations. The presence of the United States Army Medical Research and Material Command, National Interagency Confederation for Biological Research and National Interagency Biodefense Campus at Fort Detrick has generated additional spin-off companies. Most have located in traditional single-use industrial and business parks.

Baltimore is home to two major bioscience parks built to take advantage of the research strengths of Johns Hopkins University and the University of Maryland – Baltimore. Forest City is developing the Science + Technology Park at Johns Hopkins in partnership with the University and Johns Hopkins Hospital. The park is planned to include 1.1 million square feet of laboratory and office space for Hopkins and private industry. The research component will be supported by new housing, shops, restaurants and other amenities. The first building has 277,000 square feet of space anchored by Johns Hopkins Medicine's Institute for Basic Biomedical Sciences and the new Lieber Institute for Brain Development. Leasing has been relatively slow, reflecting the economy as well as the nature of the biotechnology industry and Baltimore's disadvantages in competing with the Shady Grove cluster. However, Johns Hopkins is now spinning out roughly a dozen companies per year. The Science + Technology Park is assisting in that business creation

⁷ Steve Casper, "Café Biotech" available on www.biotech360.com/biotechArticleDisplay.jsp?biotechArticleId=100014



effort by offering “plug and play” laboratories – 1,100 square-foot laboratory spaces fitted out and ready for immediate occupancy.

The University of Maryland BioPark is a 10-acre high-density cluster of offices adjacent to the campus of the University of Maryland – Baltimore, which includes the Schools of Medicine, Dentistry, Pharmacy, Nursing, Law, Social Work and Graduate Studies. Started in 2003, its three current buildings with 400,000 square feet of laboratory and office space house 21 tenants with 500 employees, including a dozen bioscience companies and research centers. The new Maryland Forensic Medical Center is nearing completion in the park. At build-out, the park will have 1.8 million square feet in 12 buildings. Developed with private investment, the park offers developed space for established companies as well as the Bioinnovation Center, an incubator facility that supports start-up companies. The Bioinnovation Center will expand to 18,000 square feet, adding 10 new laboratories by 2011. Tenants include Gliknik, Inc., Paragon Bioservices, FASgen, Inc. and Amplimmune.

Started in 1989, bwtech@umbc Research and Technology Park is a 71-acre research, entrepreneurship and economic development resource. To date, it has developed 515,000 square feet in seven facilities with 44 bioscience and information technology companies that employ 1,250 workers. Its Incubator and Accelerator serves 30 early-stage companies in 165,000 square feet. Tenants receive entrepreneurial support services, access to a network of mentors and investors, and access to UMBC faculty and graduate students. Major park tenants include RWD Technologies, the U.S. Geological Survey’s Maryland-Delaware-District of Columbia Water Science Center, and Retirement Living TV.

Table 3. Competitive Biotechnology Clusters, 2010

Name/Location	Existing Companies	Related Federal Agencies	Research Institutions	Major Medical Center	Density	Highway Access	Transit Access	Available Laboratory Space	Presence of Incubator	Distance (miles) to	
										Residential	Retail
White Oak	Less than 5	FDA		Washington Adventist (proposed)	<0.5 FAR	Excellent	Fair	No	No	<1 mile	<1 mile
Greater Seneca Science Corridor, Gaithersburg	50 to 100	NIH	Johns Hopkins Univ. of MD UM Medical	Shady Grove Adventist	<0.5 FAR	Excellent	Good	Yes	Yes	<1 mile	<1 mile
Rockville/Twinbrook	100 to 150	FDA, NIH			0.5-1.5 FAR	Good	Excellent	Yes	Yes	<1 mile	<1 mile
Science + Technology Park at Johns Hopkins, E. Balto.	10 to 15	NIH	Johns Hopkins Kennedy Krieger Howard Hughes Medical Institute	Johns Hopkins Hospital	0.5-1.5 FAR	Fair	Excellent	Yes	Yes	Included	Included
University of Maryland BioPark, Baltimore	10 to 15		Univ. of MD Medicine UM Biotechnology Institute	Univ. of MD Medical Center VA Hospital	<0.5 FAR	Good	Excellent	Yes	No	<1 mile	<1 mile
M Square, University of Maryland Research Park, College Park	Less than 5	FDA	Univ. of MD		<0.5 FAR	Good	Good	No	Yes	1-5 miles	1-5 miles
Frederick County	30 to 40	Fort Detrick			<0.5 FAR	Excellent	Fair	Yes	No	1-5 miles	1-5 miles
Columbia / Howard County	30 to 40		Johns Hopkins Applied Physics Lab	Howard County General Hospital	<0.5 FAR	Excellent	Fair	Little	No	<1 mile	1-5 miles
bwtech@UMBC, University of Maryland-Balto. Co., Catonsville	10 to 20		Univ. of MD-Balto. Co.		<0.5 FAR	Excellent	Good	No	Yes	<1 mile	>5 miles
Dulles Toll Road Area, Fairfax County, VA	Less than 10			Reston Hospital Center	<0.5 FAR	Excellent	Good	Yes	No	1-5 miles	1-5 miles

Source: Partners for Economic Solutions, 2010.

III. Office and Industrial Development Potentials

This section evaluates the ECSC office and industrial development opportunities for the East County Science Center with a special focus on potentials for bioscience-related development.

Existing Office Conditions

The study area currently offers a few independent office buildings oriented to major thoroughfares as well as low-density business and industrial park properties. Developed primarily in the 1970s and 1980s, the independent office buildings cluster off New Hampshire Avenue near White Oak Shopping Center and at the Beltway next to Hillandale Shopping Center. As the natural focus points of commerce for the surrounding communities, these buildings have housed neighborhood-serving businesses primarily until recently, with a particular emphasis on medical office space.

U.S. 29 northeast from New Hampshire Avenue has two key business/industrial parks – WesTech Business Park and Montgomery Industrial Park. Montgomery Industrial Park developed starting in the early 1960s and includes the Motor Vehicle Administration’s Vehicle Emissions Inspection Program (VEIP) facility with a traditional development pattern of independent lots along Industrial Parkway. WesTech Business Park, which developed starting in the early-1980s, has segmented its property (part of the former West Farm) to offer 365,000 square feet of multi-story office space on U.S. 29 and Cherry Hill Road to take advantage of frontage and visibility. Moving into the site on Tech Road is a cluster of flex office buildings with 366,000 square feet housing a variety of companies. Further into the interior of the site, the development shifts to independent site development with a mix of office and light industrial buildings. West Farm’s last remaining site is committed for construction of a new Washington Adventist Hospital. Maryland’s State Highway Administration also has its Fairland shop on former West Farm land.

CoStar’s North Silver Spring/Route 29 corridor corresponds reasonably well to the study area definition, as shown in the map on the following page. The inventory includes 3.6 million square feet of office space and 1.8 million square feet of flex and industrial space.

Map 2: East County Science Center Office Market Area

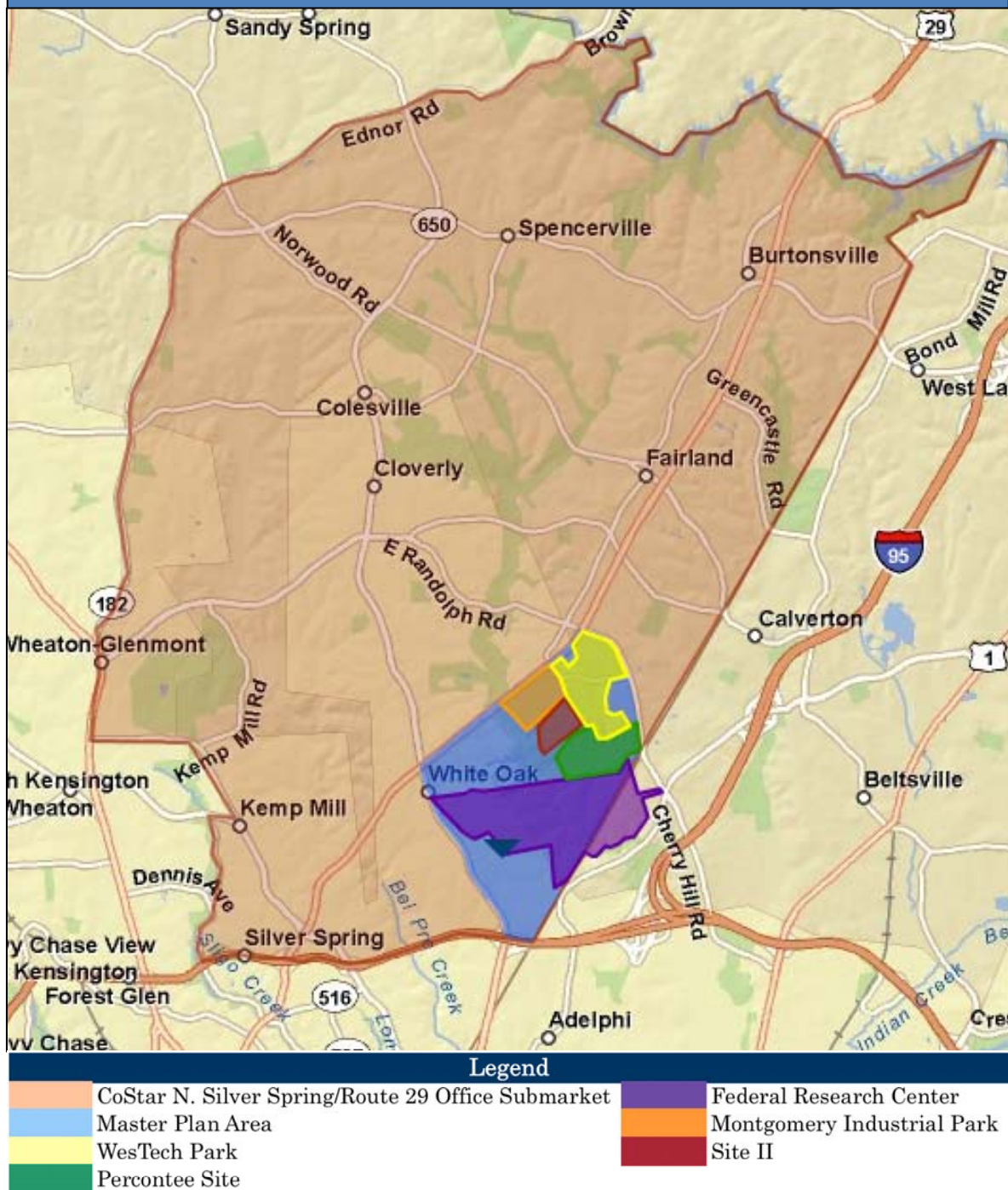


Table 1: Office Space Conditions, North Silver Spring/Route 29, Beltsville/Calverton, Montgomery County and the Washington Metropolitan Area, 2010

	Number of Buildings	Total Space	Vacant Space	Percent Vacant	Average Rate ¹
North Silver Spring/Route 29					
Total Office Space	80	3,602,348	252,114	7.0%	\$22.76
Share of Total County Office Space	5.6%	5.3%	3.2%	59.3%	80.7%
Beltsville/Calverton					
Total Office Space	49	1,734,485	288,249	16.6%	\$20.22
Share of Total County Office Space	3.4%	2.6%	3.6%	140.7%	71.7%
Montgomery County					
Total Office Space	1,431	67,728,113	7,999,147	11.8%	\$28.19
R&D Office Space	24	1,477,632	377,790	25.6%	\$25.43
R&D Flex Industrial Space	29	1,921,220	252,329	13.1%	\$18.53 ²
R&D as Share of Total Space	1.7%	2.2%	4.7%	216.5%	90.2%
Share of Total Metro Area Office Space	13.9%	14.7%	13.1%	88.9%	85.2%
Washington Metro Area ³					
Total Office Space	10,324	460,296,305	61,119,495	13.3%	\$33.07

Note: ¹Average full service rent, including utilities, taxes and janitorial.

²Average triple net rent, including utilities, taxes and janitorial.

³ Washington Metro Area includes Alexandria, Arlington, Charles, Fairfax, Falls Church, Fauquier, Frederick, Fredericksburg, Jefferson, Loudoun, Montgomery, Prince George's, Prince William, Spotsylvania, Stafford Counties, Sources: CoStar; Partners for Economic Solutions, 2010.

Due to relatively slow demand and the moratorium on new developments in place since 1986, the area's supply of office space has grown very little. From 1993 to 2000, the subarea added 750,000 square feet of space. Since 2000, construction has delivered only 304,000 square feet of new office space.

The next closest market area in the U.S. 29/I-95 corridor is Beltsville/Calverton. This area experienced no new construction over the past decade while occupancy fell from 88.7 percent in 2000 to 83.1 percent in the second quarter of 2010 with the loss of 88,800 occupied square feet. Rents average \$20.22 per square foot full service – 11 percent below the rate for space in the Route 29 submarket.

The construction activity in these two submarkets indicate a limited demand for office space outside of the major Silver Spring and Columbia business districts, which offer a range of support retail and services. Office space absorbed in the North Silver Spring/Route 29 submarket from 2000 to 2010 totaled less than 114,000 square feet, due only in part to a limited inventory of new competitive office facilities and limitations on new construction. As important has been the lack of a compelling market reason for most



businesses to locate in the area coupled with the road congestion and lack of Metrorail service.

Currently, almost 42 percent of the office supply is considered to be Class A space with 53 percent in Class B buildings and less than 5 percent in Class C condition, which indicates a fair distribution of higher quality office space.⁸ Table 2 shows office market trends in the North Silver Spring/Route 29 submarket. More detail is provided in Appendix Tables A-1 and A-2 for Montgomery County, the Washington metropolitan area, the North Silver Spring/Route 29 submarket and the adjacent Beltsville/Calverton submarket.

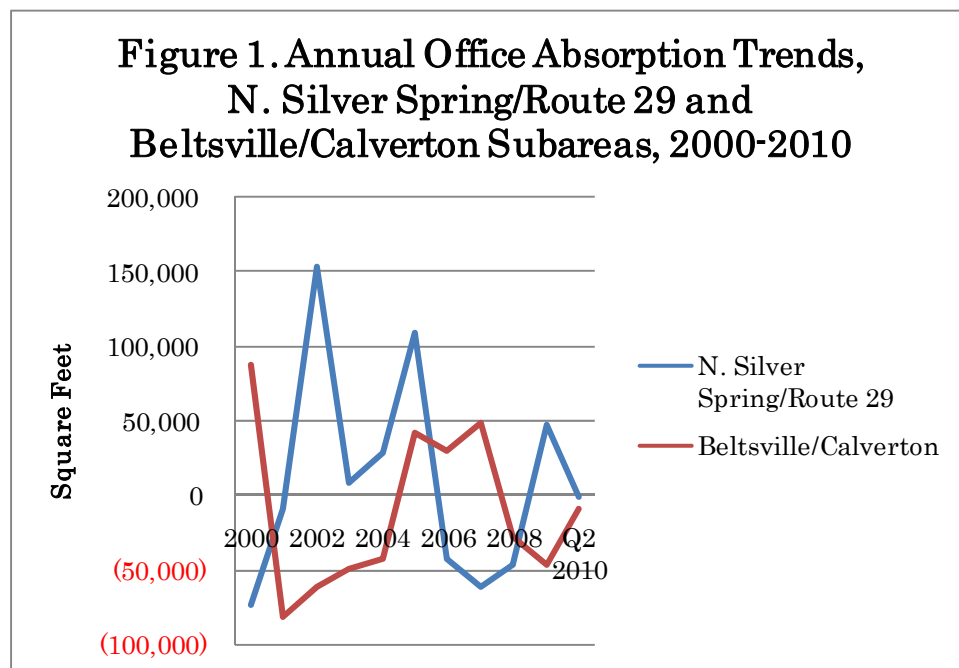
Table 2: Office Space Trends, North Silver Spring/Route 29 Submarket, 2000-2nd Quarter, 2010					
Year	Supply (Sq. Ft.)	Occupied Sq. Ft.	Percent Occupied	Absorption	Average Rate ¹
1993	2,548,238	2,369,681	93.0%	(5,125)	\$15.60
2000	3,298,238	3,231,316	98.0%	52,253	\$21.14
2001	3,369,738	3,157,883	93.7%	25,623	\$21.17
2002	3,369,738	3,149,449	93.5%	(29,732)	\$21.00
2003	3,483,489	3,302,804	94.8%	(56,382)	\$20.69
2004	3,483,489	3,311,525	95.1%	69,088	\$18.65
2005	3,518,732	3,339,628	94.9%	13,414	\$20.13
2006	3,518,732	3,448,938	98.0%	(29,357)	\$22.27
2007	3,518,732	3,406,560	96.8%	70,862	\$23.35
2008	3,547,232	3,344,678	94.3%	(73,204)	\$24.04
2009	3,547,232	3,298,498	93.0%	26,565	\$22.95
2nd Qtr, 2010	3,602,348	3,345,225	92.9%	69,130	\$22.98
2000-2010 Change	304,110	113,909	-5.1%	138,260	\$1.84
Note: ¹ Average full service rent, including utilities, taxes and janitorial.					
Sources: CoStar; Partners for Economic Solutions, 2010.					

Vacancies in the North Silver Spring/Route 29 submarket total 231,000 square feet of vacant space available from building owners and 22,000 square feet offered for sublease. That 7.0-percent rate compares favorably with the overall 11.8-percent rate countywide. However, it represents a significant increase from the 2.2-percent vacancy rate in the third quarter of 2006 and the 5.7-percent rate in the fourth quarter of 2007. Vacancies spiked to 8.2 percent in the second and third quarters of 2009 with the recession but returned quickly to 7.1 percent in the fourth quarter of 2009. By class, vacancy rates range from 5.0 percent of Class A space to 8.6 percent for Class B space and 6.6 percent for Class C space.

⁸ The Class ratings reflect the quality of construction, building age and condition, particularly the heating, venting and air conditioning and electrical systems.

A major new vacancy is expected in 2013 when Choice Hotels International's headquarters lease in the study area expires. The company has announced its intentions to move to Rockville Town Center for Metro access and proximity to one of its hotels. Its move will vacate 160,000 square feet of building space developed in 1971 on U.S. 29 just south of Lockwood Drive.

Leasing activity in the North Silver Spring/Route 29 submarket has averaged 40,100 square feet per quarter since January 2009, roughly 18 percent below the quarterly average of 49,000 square feet from 2001 through 2005. **Net** absorption, which offsets new leases with the amount of space vacated by other tenants, averaged 14,550 square feet per quarter from 2001 through 2005 or 58,200 square feet per year. For the 24 months preceding the recession's start in the third quarter of 2008, the subarea's occupied square feet declined by an average of 13,377 square feet per quarter or 53,500 square feet per year. Over the last 18 months, net absorption averaged 8,030 square feet per quarter (or 37,120 square feet per year). The submarket's share of Montgomery County's occupied office space fell from 6.2 percent in 2000 to 5.9 percent in 2005 and 5.7 percent in 2010, indicating that office occupancy has grown more rapidly in other parts of the county over the last decade.



Net absorption from January 2009 through the second quarter of 2010 totaled 49,450 square feet of Class A space, -281 square feet of Class B space and -988 square feet of Class C space. This represents tenant upgrading to better space and/or differential business



performance among the less well-capitalized businesses that favor Class B and C space. Over the past decade, net absorption has averaged 14,434 square feet annually for Class A space relative to 14,263 square feet for Class B space and -174 square feet for Class C space. Any office demand diverted from the North Silver Spring/U.S. 29 submarket by restrictions on new development did not shift to the Beltsville/Calverton market, which lost tenants during the last decade.

Existing Industrial Conditions

The Route 29 Corridor has a total of 1.8 million square feet of industrial space, an increase of 81,700 square feet over the 2000 inventory. A total of 33,800 square feet of space was absorbed over the last decade, resulting in the current occupancy rate of 90.9 percent. Annual absorption varied from a gain of 70,900 square feet in 2008 to a loss of 73,200 square feet in 2009 – a 2.1-percent gain over 10 years versus a 9.6-percent increase in Montgomery County as a whole, as shown in Appendix Tables A-3 and A-4. Rental rates average \$12.70 per square foot net of utilities, taxes, insurance and janitorial.

The adjacent Beltsville submarket has a much larger supply of industrial space with 9.7 million square feet of space. Over the last decade, the submarket has added 506,500 square feet in supply, but absorption totaled only 135,100 square feet. This led to a decline in the occupancy rate from 92.9 percent in 2000 to 89.4 percent in the second quarter of 2010. The submarket's occupied space declined by 250,000 square feet over the last 18 months. Its average rate of \$8.10 per square foot reflects a supply of industrial buildings with lower values and a smaller share of space improved as office space than in the Route 29 corridor.

Considering the whole U.S. 29/I-95 corridor from Silver Spring to the Howard County line⁹, absorption of industrial space totaled only 151,400 square feet over the last decade. Occupancy fell from 92.3 percent in 2000 to 88.5 percent in the second quarter of 2010.

Future Office and Industrial Potentials

The following discussion of office and industrial potentials assumes that the traffic congestion that has stalled development in the corridor can be mitigated to allow new development. In choosing an office location, prospective tenants' criteria typically emphasize access by car and transit, proximity to executive housing, proximity to customers, availability of support restaurant, retail and services, quality of the neighboring environment, rent levels and the quality of the office building itself.

⁹ Includes Route 29 Corridor, Silver Spring, Beltsville and Laurel submarkets.



For technology-based companies that are highly dependent on attracting talented employees, critical among these factors are locating in close proximity to other technology companies and research institutions for networking as well as proximity to where key executives live and access to a skilled labor force. Most competitive clusters of life science and other technology companies have developed near major research universities for access to researchers, graduate students and specialized equipment.

While the study area competes reasonably well on most criteria, it cannot yet offer a critical mass of technology companies, particularly life science companies. While the Washington/Baltimore has a number of world-class universities and research institutions, none have facilities near the study area. The FDA has a major local presence but not the scale of research and contracting associated with the National Institutes of Health and other institutions that have helped to spawn life science clusters. Nor does the area have access to rail transit in contrast to Rockville, Bethesda, Silver Spring and Greenbelt.

For life science companies, the future office market will depend largely on the FDA's need for space outside the Federal Research Center and the extent of spin-off demand generated by companies that desire proximity to FDA operations for frequent interaction with the agency. The FDA recently leased 51,700 square feet of space in a new office building at 10001 New Hampshire Avenue at the Beltway. Such off-campus leases may continue to be necessary as new office construction in the Federal Research Center is phased in line with Congressional appropriations. However, that demand is difficult to predict. The agency's and GSA's policy is to develop and occupy government-owned buildings. So FDA demand would occur when the agency expands its workforce faster than anticipated in the construction budget and scheduling process. Whether an individual office or division would move to the sector plan area or the study area would depend on the specific circumstances related to lease availability and terms in its current location versus those available in and near the Federal Research Campus. GSA has no authorization to enter into a long-term capital lease that would allow a developer to finance a new office building for FDA's needs. So a developer seeking to develop office space for FDA occupancy would have to bear the risk that the lease would not last beyond the initial 10-year term.

Relative to spin-off potentials, PES surveyed 24 life science companies in Rockville, Gaithersburg and Frederick to determine whether proximity to the FDA was an important location criterion for them and whether they had any near- or long-term plans to relocate closer to the FDA's White Oak operations. None identified an interest in relocating. Only three companies expected the FDA move to affect them. Several noted their satisfaction with their current locations. One-quarter cited proximity to the owner's home as an explicit reason for the company's location in the I-270 corridor. The East County Science Center



area is considered to be close enough to their existing facilities in Rockville and Gaithersburg so as not to justify relocation for greater proximity. In talking with life science companies near the East County Science Center, two had links to the FDA. One life science company located in Burtonsville reported choosing its location based on proximity to the Washington Adventist Hospital, where it conducts its clinical trials, and to the FDA as well as access to Baltimore-Washington International Airport, Baltimore and Washington, D.C. One company located in Beltsville to take advantage of proximity to the FDA.

Three interviewees offered the opinion that no existing company would relocate from the I-270 corridor to the Master Plan area. For new companies and foreign companies opening new U.S. facilities, there would not be the same inertia working against an ECSC location. However, the appeal of locating within the existing cluster of life science companies in the Shady Grove/Great Seneca Life Sciences Center in close proximity to similar companies is likely to outweigh the advantages of FDA proximity.

Local office building owners and developers have reached out to biotech, pharmaceutical, medical device and other companies with potential FDA links. To date, they report having little or no results. WesTech has one pharmaceutical company office and one computer company with an FDA contract. In the absence of major transformative actions and investments, demand from life science companies is likely to be limited.

The pace of mid-term office demand will likely reflect trends from the last decade, when net absorption averaged 14,000 square feet per year. Going forward, the area might achieve an average annual absorption of 20,000 to 30,000 square feet with the stimulus provided by further expansion of the FDA presence and development of the new Washington Adventist Hospital. The area will continue to appeal to a wide variety of companies serving primarily the local community.

The private interest in developing new industrial space will be limited by the lower returns available to developers. Densities and land values for industrial buildings are much lower than for offices. The few study area industrial sites are not as competitive as Beltsville and Laurel properties for major warehouse/distribution facilities that place high value on interstate highway access. Most manufacturing operations will seek less expensive space in less congested areas, though there could be some potential for life science-related industrial facilities if a major cluster were to develop. Most of the area's future industrial activity is likely to occur within existing industrial and flex office buildings until the market forces support redevelopment for higher intensity uses.

IV. Retail Development Potentials

This section focuses on the market potential for additional retail space in and near the White Oak Shopping Center to take advantage of the expanding workforce at the FDA on the Federal Research Campus.

The existing White Oak Shopping Center, anchored by Sears, Giant and a bowling alley, was developed in 1959 and has been renovated several times. Through the years, the tenant mix has shifted away from clothing and other shoppers goods¹⁰ to become almost exclusively food outlets and services (e.g., bank, nail and hair salons, cleaners). Other than Sears, the only shoppers goods retailers are Payless Shoes, Mattress Discounters, Nation's Carpet, Radio Shack and Silver Spring Jewelry. The 480,000 square-foot center is almost fully leased with only one vacancy. Surrounding properties are also well leased. The food outlets in and near the center reflect the area's diversity, offering Asian, Indian, Chinese, Caribbean, Vietnamese, Greek and Italian food. Almost all are locally owned with Boston Market, Popeye's Chicken and McDonald's the only national chains.

Competitive Framework

Retailers in the White Oak Shopping Center and adjacent areas compete within a marketplace that reaches north to Briggs Chaney Road, east to Interstate 95, west to University Boulevard and south to the Beltway (I-495). Key competitive centers are inventoried in the following table. Newest and most directly competitive are Orchard Center, a big box center on Cherry Hill Road west of Broadburch Drive, and WesTech Village Center, a restaurant cluster dominated by fast casual chains. Located on Tech Road just east of U.S. 29, the Village Center includes Panera, TGIF, Chick-Fil-A, Moe's Southwest Grill, Five Guys, IHOP, Siu's Asian Bistro, a bank and a few small stores as well as a Hilton Garden Inn. It is positioned to serve local hotel guests, WesTech employees and area residents.

¹⁰ "Shoppers goods" or GAFO refers to general merchandise, apparel, furniture and furnishings, and other miscellaneous shoppers goods. These stores offer the types of merchandise for which consumers like to comparison shop, generally the types of merchandise offered by department stores.

Table 3. Inventory of Competitive Shopping Centers, 2010

Name	Distance (in Miles)	Type	Stores	GLA w/ Anchors	Year Opened (Renovated)	Anchor
White Oak Shopping Center	-	Community	31	480,156	1959	Sears
Neighborhood and Community Center Competition						
Orchard Shopping Center	3.1	Community	13	425,000	1996	Target Super Fresh
WestTech Village Center	1.7	Neighborhood	13	45,000	2006	Five Guys
Hillandale Shopping Center	1.6	Community	23	184,630	1959	Value Village Safeway
Shoppes at Burnt Mills	1.1	Neighborhood	8	31,316	2005	Trader Joe's
Arliss Shopping Center	4.1	Neighborhood	3	47,838	1962/1989	Giant
Briggs Chaney Plaza	3.9	Community	36	192,386	1983	Safeway
Colesville Center	6.1	Neighborhood		85,000	1978	Giant
Kemp Mill Shopping Center	4.2	Neighborhood		79,000	1970	Giant
Regional Mall Competition						
Westfield Wheaton	5.7	Regional	120	1,280,631	1960/2005	Macy's JCPenney Target
The Mall in Columbia	15.1	Super Regional	200+	1,280,000	1971/1998	Sears JCPenney Nordstrom Macy's Lord & Taylor
Laurel Commons (Formerly Laurel Mall)	11.2	Regional	100	663,286	1979/1999	Burlington Coat Factory Macy's
White Flint	10.6	Regional	125	900,672	1977/2004	Bloomingdale's Lord & Taylor Dave & Buster's
Westfield Montgomery Shopping Mall	12.0	Super Regional	190	1,224,877	1968	Macy's Nordstrom Sears

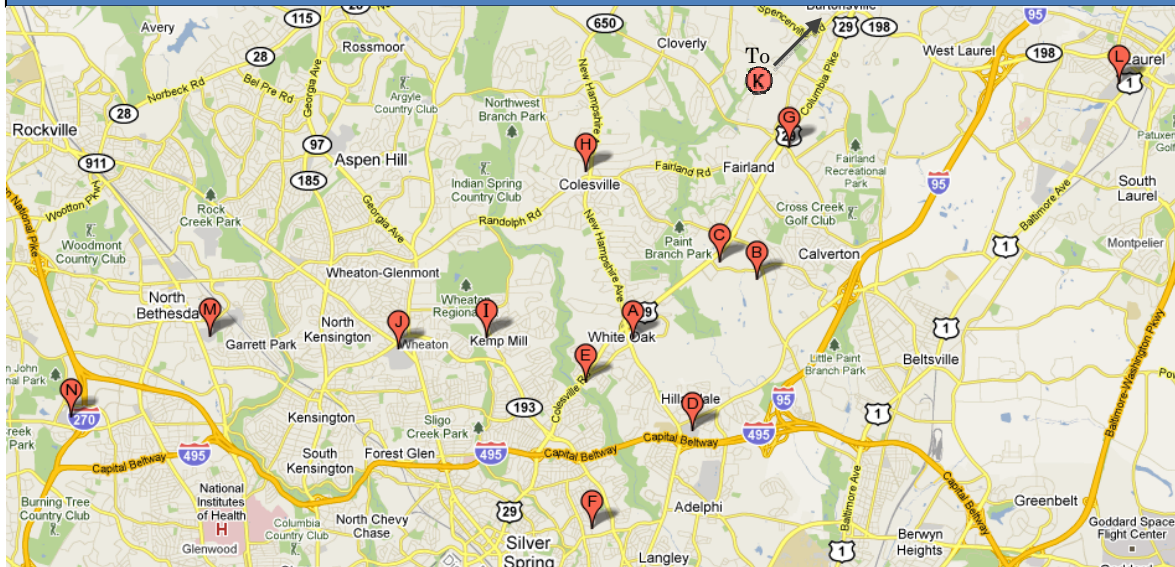
Source: Shopping Center Directory; Research & Technology Center, M-NCPPC; Partners for Economic Solutions, 2010.

Competitive supermarkets operate in:

- Orchard Center (SuperFresh) to the north on Cherry Hill Road;
- Briggs Chaney Shopping Center (Safeway) to the north on U.S. 29;
- Hillandale Shopping Center (Safeway) to the south at the Beltway;
- Colesville Center (Giant) to the west on New Hampshire Avenue;
- Kemp Mill Shopping Center (Giant) to the west on Arcola Avenue; and
- Shoppes of Burnt Mills (Trader Joe's) to the southwest on U.S. 29.

Each of these centers is primarily oriented to neighborhood goods and services. Briggs Chaney also offers a small mix of apparel retailers, anchored by Ross Dress for Less.

Map 3: East County Science Center Competitive Shopping Centers



Map ID	Name / Address	Map ID	Name / Address
Neighborhood & Community Centers		Neighborhood & Community Centers	
A	White Oak Shopping Center 11200 New Hampshire Ave.	H	Colesville Center New Hampshire Ave. at Randolph Rd.
B	Orchard Shopping Center Broadbitch Dr. at Cherry Hill Rd.	I	Kemp Mill Shopping Center Lamberton Dr. at Arcola Ave.
C	Westech Village Center Tech Rd. at Broadbitch Dr.	Regional Mall	
D	Hillandale Shopping Center New Hampshire Ave. at Powder Mill Rd.	J	Westfield Wheaton 11160 Veirs Mill Rd., Wheaton
E	Shoppes at Burnt Mills 10741 Colesville Rd., Silver Spring	K	The Mall in Columbia 10300 Little Patuxent Pky, Columbia
F	Arliss Shopping Center 850 Arliss Street, Silver Spring	L	Laurel Commons 14828 Baltimore Ave, Laurel
G	Briggs Chaney Plaza 13855 Outlet Drive, Silver Spring	M	White Flint 11301 Rockville Pike, Kensington
		N	Westfield Montgomery Shopping Mall 7101 Democracy Blvd, Bethesda

Source: Shopping Center Directory; Research & Technology Center, M-NCPPC; Partners for Economic Solutions, 2010.

Regional shopping centers provide the most direct competition to Sears. The Westfield Wheaton Shopping Center (formerly Wheaton Plaza) is a 1.3 million square-foot mall, anchored by Macy's, JC Penney and Target and about to expand with the addition of Costco. Columbia Mall, 15 miles north off U.S. 29, is anchored by Nordstrom, Sears, JC Penney, Macy's and Lord & Taylor. Westfield Montgomery Shopping Mall also draws shoppers with Nordstrom, Macy's and Sears. Within the East County Science Center is the Orchard Shopping Center big box development with Target and Kohl's.



A major new regional retail development is proposed as part of the Konterra development to be located at the new intersection of I-95 and Contee Road, only six miles from White Oak Shopping Center. Anticipating a first-phase opening in the next two to four years, the Konterra Town Center East is planned to include 1.5 million square feet of “fashion-forward retail” as part of a major mixed-use development. In a later development, Town Center West also may include retail space.

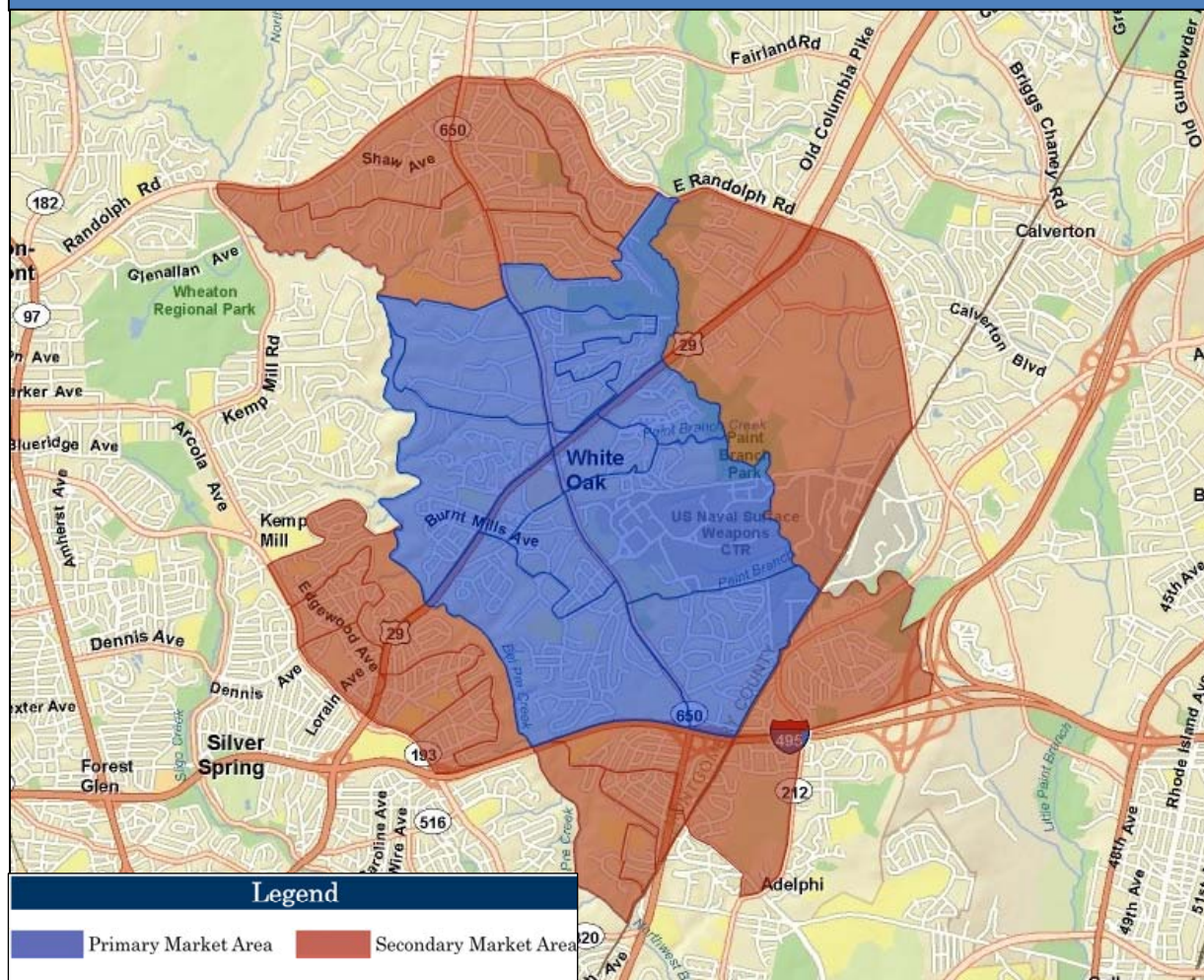
The convenience and appeal of multiple apparel, furnishings and general merchandise stores in one center offer stiff competition and limit White Oak Shopping Center’s ability to draw customers from a wider area and to attract shoppers goods retailers.

Resident Expenditures

Shown on Map 4, White Oak Shopping Center retailers serve a Primary Market Area (PMA) from the Beltway north along New Hampshire Avenue for a distance of roughly one mile beyond U.S. 29. The center’s stores likely draw 60 to 75 percent of their sales from residents living in this tight-in market. The Secondary Market Area (SMA) extends the PMA in all directions, taking advantage of the good road network, to include Riderwood and other nearby residents that have good shopping alternatives as near to them and therefore are less inclined to shop in and around the White Oak Shopping Center routinely. Given its size, marketing and brand loyalty, Sears likely draws a significant share of its customers from beyond the PMA and SMA.

In assessing potential sales support, residents’ spending is expressed as expenditure potential, which measures all the dollars local households spend on types of retail goods without regard to where the dollars are spent. Thus, it includes money spent elsewhere for lunch at work, on vacation, on line or in shopping centers outside the market area. Capture rates estimate the share of market area residents’ spending that can be attracted to, or “captured” by, local retailers. Given the nature and location of competitive shopping centers, White Oak Shopping Center’s draw is and will be strongest for neighborhood goods and services – groceries, food, eating and drinking and drugstore items. The potential to attract any significant cluster of shoppers goods retailers is relatively limited.

Map 4: East County Science Center Retail Market Areas



Capture rates of 40 and 15 percent, respectively, for PMA and SMA expenditure potential for food and beverage indicate potential to achieve \$22.3 million in annual sales from market area residents, as detailed in Appendix Tables A-8 and A-9.

Employee Expenditures

The concentration of workers within the FDA represents an additional source of potential sales. The consolidation of FDA operations into the White Oak Federal Research Campus is proceeding on a phased basis with construction of new facilities. On-site employment now stands at 5,500. Though the Environmental Impact Statement allowing further



expansion of the workforce has not been prepared yet, the agency has plans to expand its local operations to roughly 11,000 employees. The agency's growth trends and expanding responsibilities (e.g., regulating tobacco) have caused it to continually exceed its growth projections over the last decade. So it is not unlikely that its ultimate presence may exceed even these projections.

FDA employees have options to eat lunch on campus in the cafeteria or other food outlets. Some employees take advantage of their proximity to White Oak Shopping Center to eat in local restaurants instead. The shopping center contracts with CHI to run a midday shuttle between FDA and the shopping center to help reduce the distance burden on those employees who commute by transit and do not have access to a car. The FDA's Transportation Management Plan sets a 2010 goal of 25 percent of FDA employees arriving by transit, shuttle, carpools, vanpools, walking, cycling and drop-offs, increasing to 29 percent in 2011. This includes a 10-percent goal for arrivals by transit. For those with cars, the WesTech Village Center offers a range of additional restaurant options, including several major fast-casual restaurant chains.

Serving a larger share of the FDA employees will require convenient access from their places of work. The research campus provides an attractive setting with large open spaces, mature forest and good landscaping; however, its campus design inhibits employee movement out into the community. As a secured facility, no public buses are allowed to traverse the property; they currently operate along New Hampshire Avenue and Lockwood Drive. The FDA runs shuttle buses that link employees to remote parking lots and to other FDA facilities outside of the Federal Research Campus. With lunch hour time limitations, the share of workers willing and able to leave the campus for lunch will be constrained, estimated at 10 to 15 percent. With the opening of the northeast entrance from Cherry Hill Road, walking distance will be reduced to new development on the Percontee property. That may shorten the walk and attract more employees to eat lunch off-site, at least occasionally.

The Metropolitan Washington Council of Governments' employment estimates indicate that the area within roughly one mill has 2,100 office employees in addition to those at the FDA. Based on typical spending patterns of office workers near their place of work¹¹, the FDA and other office employees would have the potential to spend almost \$30 million annually, as shown in Appendix Table A-10. Adjusting for the share of those dollars spent in the immediate White Oak Shopping Center area, the potential sales total \$6.7 million.

¹¹ International Council of Shopping Centers, Office Worker Retail Spending Patterns: A Downtown and Suburban Area Study, New York, NY, 2004, 112 pgs.

Visitor Expenditures

The FDA is expecting to host 150 to 200 public meetings per year with the recent opening of its Great Room facility, which seats up to 600 persons. The project has been designed with 1,000 parking spaces for visitors, many of whom stay more than a couple of hours. This analysis assumes an average of 500 daily visitors to the FDA. Other visitors to the area include guests staying in local hotels (which may overlap with the FDA visitors). The two hotels closest to the Federal Research Center at White Oak – Courtyard by Marriott on Prosperity Drive off U.S. 29 and Cherry Hill Road, and Marriott Residence Inn adjacent to Orchard Center on Cherry Hill Road – had a combined total of roughly 62,000 room-nights in 2009. With the addition of the Hilton Garden Inn in the WesTech Village Center and recovery from the recessionary effects to a 65-percent occupancy level, that visitation level could grow to 91,000 room-nights in 2011. Those guests spend an estimated \$20 daily for dinner. This analysis excludes breakfasts, which are typically provided in the hotels, and lunches assumed to be purchased near the visitors' destinations rather than their hotels. Restaurants in and near the White Oak Shopping Center compete with those in the WesTech Village Center and in Orchard Center for the hotel guests' patronage. These competitive food outlets are primarily fast casual restaurants and fast food. White Oak Shopping Center and surrounding sites offer distinctive, locally owned sit-down restaurants that appeal to a segment of travelers.

Shown in Appendix Table A-11, visitor spending for eating and drinking as well as neighborhood goods and services is estimated at \$3.1 million annually. Restaurants in and near the White Oak Shopping Center could capture 10 to 20 percent of the hotel guests' dinner expenditures, 20 percent of day visitors' lunch expenditures and 25 percent of visitor spending for neighborhood goods and services or \$540,000 per year.

Total Sales Potential

Table 4 summarizes the potential sales to area residents, employees and visitors, indicating a total potential of \$107.5 million annually. White Oak Shopping Center retailers also will attract an estimated \$27.2 million in inflow sales from beyond the Primary and Secondary Market Areas with Sears the largest beneficiary. This indicates a total potential of \$134.7 million in annual sales.

Over the next five years, the addition of another 5,500 FDA employees and 2,000 Washington Adventist Hospital employees could generate \$8.6 million in incremental annual sales. If the Secondary Market Area were to see residential development for 1,000 new households, they could boost potential sales by another \$4.0 million. Most of that



increased spending could be accommodated in existing stores and restaurants. Significant up-zoning for new dense residential development would increase those future sales.

Table 4. Total White Oak Spending Potential					
Retail Spending by Category	Market Area Residents	Employees	Visitors	Inflow ³	Total Sales
Neighborhood Goods & Services					
Health and Personal Care Stores	\$ 8,981,000	\$ 1,444,000	\$ 55,000	\$ 1,048,000	\$ 11,528,000
Grocery Stores	\$ 48,161,000	\$ 1,972,000	NA	\$ 5,013,000	\$ 55,146,000
Specialty Food Stores	\$ 650,000	NA	NA	\$ 65,000	\$ 715,000
Beer, Wine and Liquor Stores	\$ 2,489,000	NA	NA	\$ 249,000	\$ 2,738,000
	\$ 60,281,000	\$ 3,416,000	\$ 55,000	\$ 6,375,000	\$ 70,127,000
Food Establishments					
Food Away from Home	\$ 22,291,000	\$ 2,772,000	\$ 485,000	\$ 5,110,000	\$ 30,658,000
GAFO (General Merchandise, Apparel, Furnishings & Other Miscellaneous Retail)					
Apparel and Accessories	\$ 966,000	NA	NA	\$ 242,000	\$ 1,208,000
Furniture and Furnishings	\$ 2,850,000	NA	NA	\$ 713,000	\$ 3,563,000
General Merchandise	\$ 5,795,000	\$ 552,000	NA	\$ 12,694,000	\$ 19,041,000
Other Retail	\$ 8,081,000	NA	NA	\$ 2,020,000	\$ 10,101,000
	\$ 17,692,000	\$ 552,000	NA	\$ 15,669,000	\$ 33,913,000
Total Non-Auto Retail Spending	\$ 100,264,000	\$ 6,740,000	\$ 540,000	\$ 27,154,000	\$ 134,698,000
Note: ¹ Estimated at 10 percent for Neighborhood Goods & Services, 20 percent for Food, 200 percent for General Merchandise and 25 percent for Other GAFO.					
Source: Partners for Economic Solutions, 2010.					

Development Potentials

Opportunities for new retail development near the White Oak Shopping Center depend both on the demand detailed above and the availability of appropriate properties.

Supportable Retail Space

The level of achievable sales can be translated into square feet of supportable retail space using productivity levels (sales per square foot). Shown in Table 5, the \$134.7 million in sales potential could support roughly 445,000 square feet of retail space with sales ranging from \$150 to \$700 per square foot depending on the type of store. The total supportable inventory of retail space would be larger with the inclusion of non-retail service businesses. Given the current inventory of retail space, this indicates that the local market is reasonably well served by existing retail facilities.

Modest development opportunities would be created by growth in local area employment, particularly at the FDA and the Washington Adventist Hospital. With the addition of 7,500 new jobs, supportable square feet would increase by roughly 33,000 square feet.

Development of new housing and growth in the number of households in the primary and secondary market areas also would increase the amount of supportable retail space. One



thousand new households in the Secondary Market Area would increase the potential for supportable retail space in the immediate White Oak Shopping Center area by 15,000 square feet.

Table 5. Total White Oak Supportable Retail Space			
Retail Spending by Category	Total Sales	Sales Productivity (Sales/SF)	Total Supportable Square Feet
Neighborhood Goods & Services			
Health and Personal Care Stores	\$ 11,528,000	\$250	46,100
Grocery Stores	\$ 55,146,000	\$700	78,800
Specialty Food Stores	\$ 715,000	\$350	2,000
Beer, Wine and Liquor Stores	\$ 2,738,000	\$300	9,100
	\$ 70,127,000		136,000
Food Establishments			
Food Away from Home	\$ 30,658,000	\$250	122,600
GAFO (General Merchandise, Apparel, Furnishings & Other Miscellaneous Retail)			
Apparel and Accessories	\$ 1,208,000	\$250	4,800
Furniture and Furnishings	\$ 3,563,000	\$250	14,300
General Merchandise	\$ 19,041,000	\$150	126,900
Other Retail	\$ 10,101,000	\$250	40,400
	\$ 33,913,000		186,400
Total Non-Auto Retail Spending	\$ 134,698,000		445,000
Source: Partners for Economic Solutions, 2010.			

Creation of a suitable retail development site would require redevelopment. Long-term redevelopment of White Oak Shopping Center would create the opportunity for mixed-use development with a different mix of retailers. Without redevelopment, the shopping center's development potential will be limited by its strip center design with little landscaping and no sense of place. The center offers no landscaped plaza or open space designed to appeal to pedestrians. Its design and tenant mix do not appeal to most chain restaurants.

However, redevelopment is unlikely in the near future. White Oak Shopping Center serves a distinct market need and generates sufficient sales to warrant continued operation with periodic upgrades and renovations.



The impetus for redevelopment would need to be driven by potential returns from a much more dense mixed-use development. Abandoning or reconfiguring a profitable center would need to provide sufficient potential profit to justify the cost of structured parking, the risks associated with development, and the loss of rental income during the reconstruction phase. Most often for mixed-use developments, those profits have been generated by strong demand for higher rent office space and apartments or condominiums. In the Washington, DC area, that demand for multiple uses at high rents has occurred almost exclusively at Metro stations and/or in downtowns. Given the existing market economics, significant redevelopment of the existing White Oak Shopping Center is not likely in the foreseeable future. What is more likely would be periodic renovations and enhancements to present a more competitive property to shoppers and retailers. If Sears were to close, the change in anchors would offer the opportunity to revisit the center's concept and design.

More likely development opportunities relate to smaller parcel redevelopment and upgrades. Some properties along Lockwood Drive between White Oak Shopping Center and the FDA research campus are relatively under-utilized and could potentially lend themselves to a future assembly and redevelopment. That would offer an opportunity for a pedestrian-friendly design with better physical connections to the FDA.

If development proceeds on a major mixed-use project on the Percontee site and/or Site II, these properties would have the advantage of master planning of a large property that would integrate retail and restaurants effectively with new office, housing, other uses and public spaces. The potential to create a more compelling environment could attract retailers to that location over a redeveloped White Oak Shopping Center. Though it would not benefit from visibility and direct access from New Hampshire Avenue or U.S. 29, such a development could preempt major new retail/restaurant development at White Oak Shopping Center aimed at the same market.

V. Hotel Development Potentials

Hotel demand in the ECSC will increase with activity generated by FDA expansion and the new Washington Adventist Hospital. Local hotels compete within the larger marketplace for business travelers and tourists. That competition will also increase with new hotels in Konterra and Downtown Silver Spring. ECSC hotels have competed primarily based on convenience to travelers' business destination, lower room rates and free parking.

Existing Conditions

Currently, the North Silver Spring/East County Science Center hotel inventory is relatively limited – three hotels in Silver Spring and two older hotels on I-95 in Beltsville. All are mid-market hotels; two have restaurants and one is designed for extended stays. (See Map 5 on the following page.)

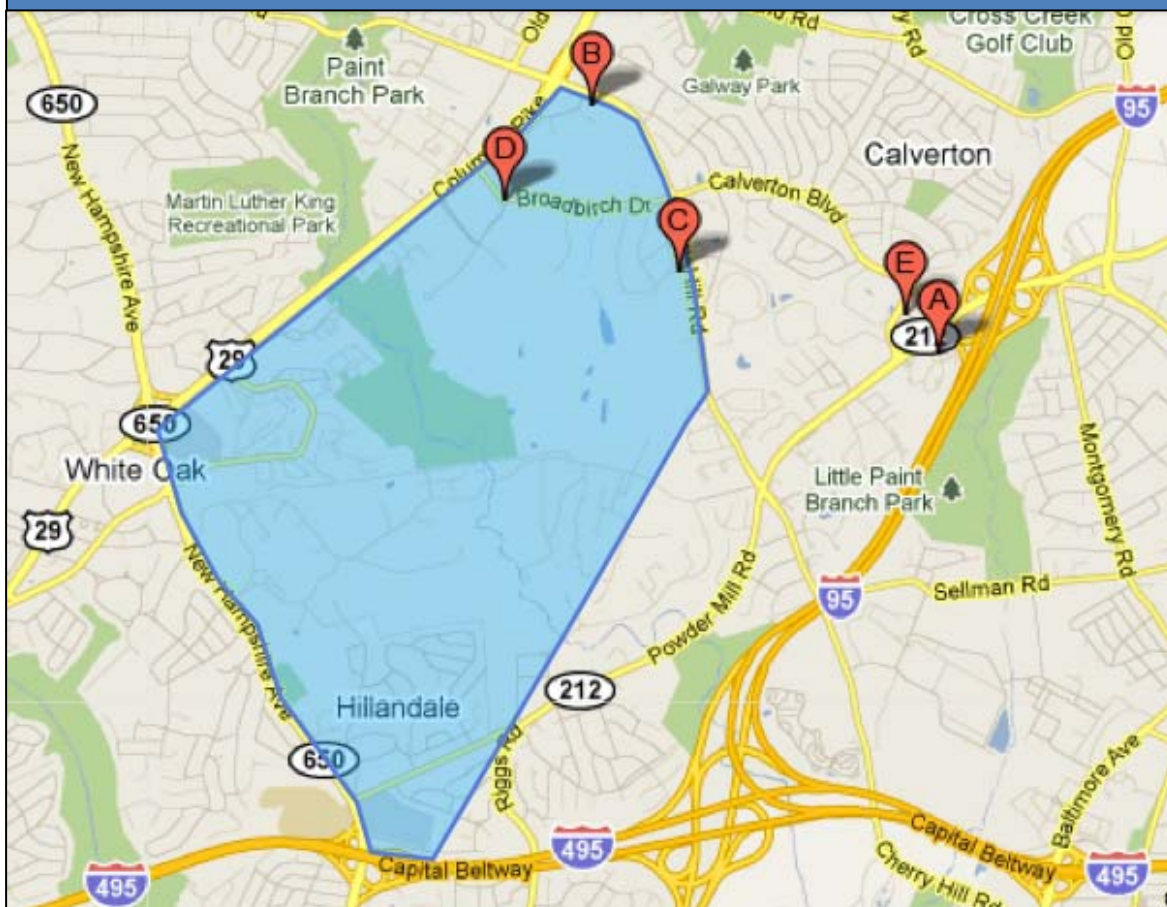
The Marriott Residence Inn is a 130-suite extended-stay hotel adjacent to the Orchard Center on Cherry Hill Road. Further west along Cherry Hill Road just off U.S. 29 is the 146-room Courtyard by Marriott. Just opened is the Hilton Garden Inn with 107 rooms and a restaurant in the WesTech Village Center east of U.S. 29 and south of Cherry Hill Road. All three hotels serve visitors to the businesses in WesTech Park and the FDA and visitors to area residents. On Powder Mill Road at I-95 just north of the Beltway, the full-service Sheraton Hotel Washington North, which opened in 1987, has 207 rooms, a restaurant and 4,000 square feet of meeting facilities. The Comfort Inn, which opened in 1971, offers 169 guest rooms and six meeting rooms ranging in size from 468 to 1,222 square feet.

Table 6: East County Science Center Hotel Inventory

Property Name	Number of Rooms	Year Opened	Type
Sheraton Hotel Washington North	207	1987	Mid-level with F&B
Comfort Inn Capital Beltway I-95 North	169	1971	Mid-level without F&B
Courtyard by Marriott Silver Spring North	146	1988	Mid-level without F&B
Residence Inn Silver Spring	130	2005	Mid-level without F&B
Hilton Garden Inn	107	2010	Mid-level with F&B
Total Rooms	759		

Source: STR Global, 2010; Partners for Economic Solutions, 2010.

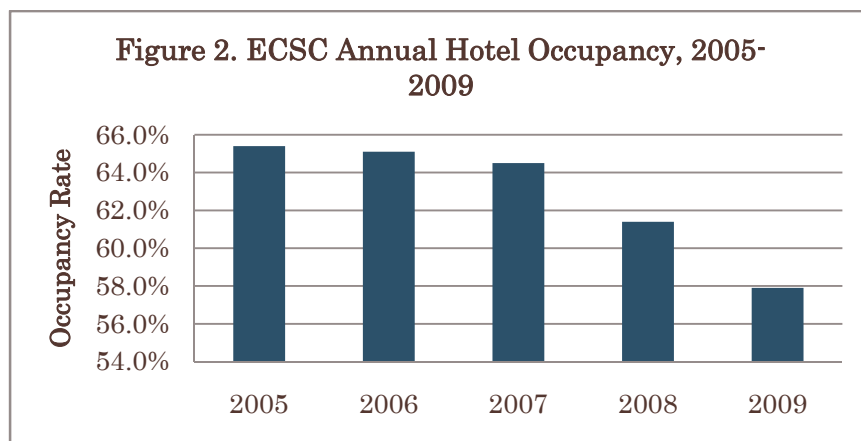
Map 5: East County Science Center Competitive Hotels



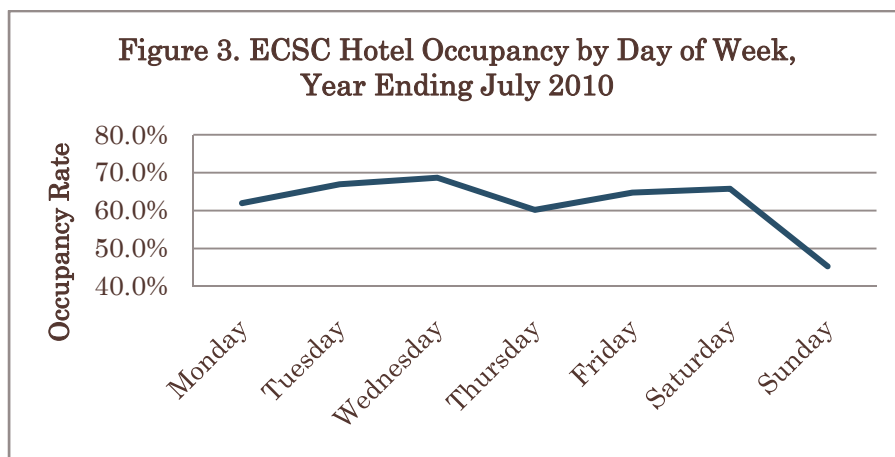
Legend			
Map ID	Name / Address	Map ID	Name / Address
A	Sheraton Hotel Washington North 4095 Powder Mill Rd, Beltsville, MD	D	Hilton Garden Inn, Silver Spring North 2200 Broadbitch Dr, Silver Spring, MD
B	Courtyard by Marriott, Silver Spring North 12521 Prosperity Dr, Silver Spring, MD	E	Comfort Inn, Capital Beltway I-95 North 4050 Powder Mill Rd, Beltsville, MD
C	Residence Inn Silver Spring 12000 Plum Orchard Dr, Silver Spring, MD		Master Plan Boundary

Operating performance (excluding the newly opened Hilton Garden Inn) has lagged in the last two and a half years, reflecting the national recession. Averaging 65.1 percent in 2006 and 64.5 percent in 2007, occupancy fell to 61.4 percent in 2008 and bottomed out in 2009 at 57.9 percent, as shown in Figure 2. Ideally, occupancy would average 68 percent or higher. Occupancy from January to July 2010 was 12 percent above the 2009 performance

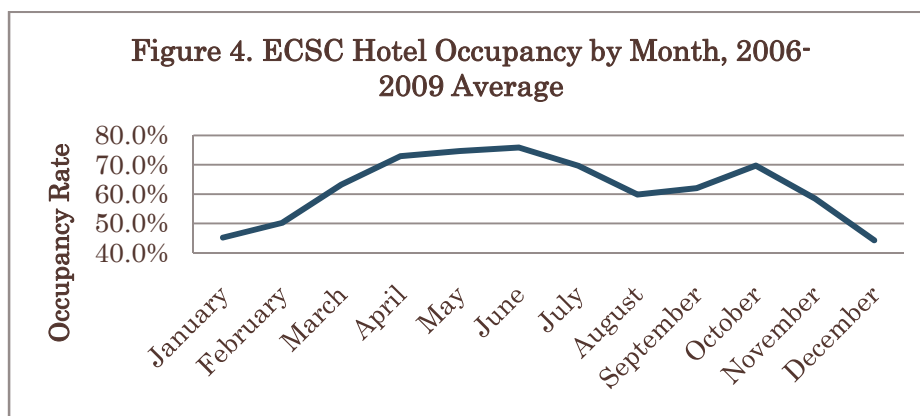
for the same period. Average daily rates averaged \$113.55 for 2009, down 12 percent from the 2008 level of \$129.36.



Occupancy by day of the week and month indicates that these hotels serve both business and leisure guests. Peak occupancy at 66.9 percent on Tuesdays and 68.7 percent on Wednesdays over the last 12 months coincides with business demand peaks. (See Appendix Table A-12 and Figure 3.) However, the relatively high occupancies of 64.7 percent on Fridays and 65.8 percent on Saturdays indicate leisure travel demand.



By month, high occupancy in March, April and May is again consistent with times of high business demand, as shown in Appendix Table A-13 and Figure 4. The high rates of 70 to 76 percent in June and July reflect vacation travelers.



Based on these statistics, PES estimates that the hotels are generating 65 percent of their occupancy, or 90,000 room-nights¹², from business travelers and 35 percent (48,000 room-nights) from leisure travelers.

Individual hotels report some increase, though modest, in demand related to the FDA's presence. They anticipate increasing demand in future years as the FDA increases its presence in the Master Plan area.

The FDA has just opened its Great Room, which will accommodate meetings and hearings with up to 600 persons in attendance. Though bookings are just beginning, agency officials expect that the room will be heavily scheduled for regulatory hearings, industry panels and other meetings with public meetings scheduled on average three to four days per week. Before a product panel holds a hearing on the efficacy and safety of a proposed new drug, the pharmaceutical company will typically gather its staff and consultants for at least two, and often five or more, days to prepare and rehearse their presentation. Large companies may bring a team of 20 or more participants from out of town. To date, these hearings have been held off-site in major hotels, most often in the I-270 corridor. The pharmaceutical company representatives tend to prefer lodging in the same hotel as the hearing, taking advantage of the opportunity to rehearse in the actual room. With a shift to on-site meeting facilities, these company delegations will have greater latitude in deciding where to stay. This may allow the ECSC hotels to generate more business from FDA-related groups.

¹² Occupancy of one room for one night. Annual room-nights are calculated as the occupancy rate times the number of rooms times 365 nights per year. Performance in 2009 excludes the Hilton Garden Inn.

Future Hotel Potential

Considering the mix of business at the existing hotels, future potential is determined through separate projections of demand from the business and leisure sectors. Economic recovery will increase demand from both business and leisure travelers, projected to restore room-night demand to pre-recession levels of 65-percent occupancy. With economic recovery and expansion of on-site FDA activities, FDA-generated demand for hotel rooms is projected to grow to an average of 100 rooms per night (five nights per week) in 2011, 150 nights in 2020 and 175 nights in 2030. Future FDA-related business travel demand is estimated at 37,500 annual room-nights in 2020 and 43,800 room-nights in 2030, though much may change over the next two decades in the size and nature of the agency and the way it does business. The shifting of meetings to the on-site Great Room will significantly increase the demand for hotel rooms in close proximity. ECSC hotels will compete with Downtown Silver Spring and eventually with Konterra Town Center hotels for that business. The share captured in ECSC hotels (including the Sheraton and Comfort Inn) is projected to increase from 40 percent in 2011 to 60 percent in 2020.

Individual business travelers coming to meet with FDA officials and staff also will generate increasing demand for overnight accommodations as the FDA shifts additional operations and staff to the White Oak Federal Research Campus.

Leisure travel demand for travelers visiting local residents can be expected to grow with the study area population. The growth constraints imposed by the Adequate Public Facilities Ordinance test are likely to continue limiting new housing development in the study area over at least the near- and mid-term future. The Metropolitan Washington Council of Governments household projections indicate an annual increase of 0.06 percent from 2010 to 2020 and 0.01 percent from 2020 to 2030. Also affecting leisure hotel demand will be the growth in tourism, estimated at 1.0 percent annually to 2030.

The opening of the new Washington Adventist Hospital on Plum Orchard Drive will likely generate a small increment of new hotel demand as family members come to be near their ailing relatives. Washington Adventist provides tertiary cardiac care, attracting patients from the Eastern Shore and Western Maryland, patients who may need hotel accommodations. Based on the anticipated distribution of future patients, hospital-related demand is projected to average 20 rooms per night by 2020 and 30 rooms per night by 2030. Three-quarters of those hospital-generated room-nights are likely to be spent in nearby hotels.

Table 7. Projection of Hotel Room-Night Demand, 2009-2030			
	Business Travel	Leisure Travel	Total
Current Situation			
2009	90,000	48,000	138,000
Growth Due to Economic Recovery ¹			
2011 Room-Nights	10,000	7,000	17,000
FDA-Related Hotel Demand			
2011 (100 persons per day)	25,000	NA	25,000
2020 (150 persons per day)	37,500	NA	37,500
2030 (175 persons per day)	43,800	NA	43,800
Percent Captured in Market Area Hotels			
2011	40%	NA	40%
2020	60%	NA	60%
2030	60%	NA	60%
Washington Adventist Hospital Demand			
2020 (20 rooms per night)	NA	7,300	7,300
2030 (30 rooms per night)	NA	11,000	11,000
Percent Captured in Market Area Hotels			
2020	NA	75%	75%
2030	NA	75%	75%
Growth Due to Population and Tourism Growth			
Average Annual Growth Rate ²			
2009-2020	NA	12.3%	12.3%
2020-2030	NA	10.6%	10.6%
Room-Nights			
2020	NA	6,700	6,700
2030	NA	6,500	6,500
Total Projected Room-Nights			
2020	123,000	67,000	190,000
2030	126,000	70,000	196,000
Supportable Hotel Rooms³			
2020	500	270	770
2030	510	280	790
Note: ¹ Assumes recovery to 65-percent occupancy.			
² Based on projected study area household growth plus 1.0-percent annual growth in tourist demand.			
³ Based on 68-percent average occupancy.			
Source: STR Global; Partners for Economic Solutions, 2010.			

Summarized in Table 7, this analysis indicates that the total number of room-nights captured by area hotels will grow from 137,000 in 2009 to 196,000 room-nights in 2030. With an average occupancy of 68 percent, that demand would support 770 hotel rooms by 2020 and 790 rooms by 2030, demand which could be accommodated by the existing hotel



inventory. Over the next two decades, replacement of one or more of the existing hotels will be likely.

Support for additional hotel rooms would require a new generator of hotel room-night demand, particularly in the face of new competition from the proposed 600 new hotel rooms in Konterra Town Center East just five to six miles away, which will provide a high-amenity appealing environment with walkable access to retail and entertainment. Further hotel development in downtown Silver Spring also will present continued competition for ECSC hotels.

Introduction of quality transit service from the ECSC that linked directly to the Metro system could enhance significantly the area's ability to compete for tourists and other visitors, increasing room-night demand and potential for an additional hotel.

VI. Conclusions

The ECSC study area market demand is consistent with the area's historic role as a community-level center of economic activity. Community businesses serve primarily the demand from its corner of Eastern Montgomery County. Businesses with a larger market focus have chosen sites in the area primarily based on rent/price, free parking and access to a suburban workforce.

The introduction of the new FDA campus is changing some of those dynamics, giving FDA-related companies an affirmative reason to seek out ECSC and providing new market support to local restaurants and retailers. However, the scale of FDA's impact is much more modest than anticipated by some supporters. The concentration of life science companies in the Great Seneca Science Corridor along I-270 is a compelling attractor for new biotech and other life sciences companies, who need and desire collaborations and support from their peers in the industry. When coupled with the U.S. 29 corridor's road congestion and limited transit service, the ECSC will have difficulty competing for life science companies in any significant number.

Shifting the life science market to favor significant development in the ECSC would require much more than revised zoning, incremental improvements in bus service and an easing of the Adequate Public Facilities moratorium. ECSC would require one or more distinctive, significant game changers to become truly competitive. Among the transformative investments capable of changing the area's ability to attract major employers are:

- attraction of a major research and/or educational institution;
- enhanced transit service with fixed stations, frequent service and an ability to significantly cut commuting times; and
- mixed-use development with office, retail, housing, hotel and public spaces in a truly integrated design that encourages walking.

Each of these catalysts would require major public commitment and investment to provide the infrastructure and amenities essential to competing in both the regional and global markets.

Appendix Tables

**Table A-1. East County Science Center Household Population
Characteristics, 2008**

	Study Area		Montgomery County	
	Number	Percent	Number	Percent
Household Population	35,655		939,200	
Population by Age	35,655	100.0%	939,200	100.0%
0-4 Years	2,600	7.2%	62,900	6.7%
5-17 Years	6,500	18.2%	164,400	17.5%
18-29 Years	5,000	14.0%	126,800	13.5%
30-44 Years	7,100	19.8%	193,500	20.6%
45-64 Years	10,100	28.3%	273,300	29.1%
65-74 Years	2,300	6.4%	61,000	6.5%
75 Years and Over	2,200	6.2%	57,300	6.1%
Average Age	37.5		38.1	
Race and Hispanic Origin	35,655	100.0%	939,200	100.0%
Non-Hispanic	30,800	86.3%	792,700	84.4%
White	12,900	36.1%	504,400	53.7%
Black	13,900	39.0%	149,300	15.9%
Asian or Pacific Islander	3,300	9.2%	124,000	13.2%
Other	700	1.9%	16,000	1.7%
Hispanic or Latino ¹	4,900	13.7%	146,500	15.6%
Foreign-Born	10,600	29.7%	268,600	28.6%
Language Spoken at Home - Five Years and Older	33,070		876,440	
Speak Language Other than English	13,900	41.9%	332,200	37.9%
Speak English Less Than "Very Well"	3,900	11.8%	92,900	10.6%
Educational Attainment - 25 Years and Older	23,435	100.0%	636,240	100.0%
Less than High School Diploma	1,000	4.4%	26,700	4.2%
High School Graduate	6,000	25.7%	149,500	23.5%
Associate or Trade School	1,500	6.6%	38,800	6.1%
Bachelor's Degree	7,000	29.7%	185,800	29.2%
Graduate, Profesional or Doctoral	7,900	33.6%	235,400	37.0%

Note: ¹Those of Hispanic origin may be of any race.

Source: 2008 Census Update Survey, Research & Technology Center, MCPD, M-NCPPC, April 2010.

Table A-2. East County Science Center Household Characteristics, 2008

	Study Area		Montgomery County	
	Number	Percent	Number	Percent
Households	14,195		357,000	
Tenure	14,195	100.0%	357,000	100.0%
Owner	9,000	63.7%	267,400	74.9%
Renter	5,200	36.3%	89,600	25.1%
Persons in Households	14,195	100.0%	357,000	100.0%
1 Person	4,300	30.6%	86,800	24.3%
2 Persons	4,500	32.0%	113,000	31.7%
3 Persons	1,700	12.2%	60,900	17.1%
4 Persons	2,200	15.6%	58,700	16.5%
5+ Persons	1,400	9.6%	37,700	10.6%
Average Household Size	2.51		2.63	
Average Number of Cars	1.7		1.9	
2007 Household Income	14,195	100.0%	357,000	100.0%
Under \$15,000	500	3.2%	9,300	2.6%
\$15,000 to \$29,999	1,100	7.9%	17,500	4.9%
\$30,000 to \$49,999	2,400	17.0%	42,100	11.8%
\$50,000 to \$69,999	2,200	15.3%	48,900	13.7%
\$70,000 to \$99,999	3,300	23.1%	68,500	19.2%
\$100,000 to \$149,999	2,500	17.8%	80,300	22.5%
\$150,000 to \$199,999	1,500	10.5%	41,100	11.5%
\$200,000 and over	700	5.2%	49,300	13.8%
2007 Median Household Income	\$75,395		\$96,475	
Residence in April 2003	14,195	100.0%	357,000	100.0%
In Same Home	8,400	59.1%	215,400	60.4%
Elsewhere in County	2,300	16.1%	70,000	19.6%
Elsewhere in Maryland	1,200	8.8%	13,900	3.9%
DC or Northern Virginia	300	2.2%	12,900	3.6%
Outside Metro Area	2,000	13.8%	44,800	12.6%
Median Years in Same Home	7		7	

Source: 2008 Census Update Survey, Research & Technology Center, MCPD, M-NCPPC, April 2010.

Table A-3. East County Science Center Labor Force Characteristics, 2008

	Study Area		Montgomery County	
	Number	Percent	Number	Percent
Employed Residents - 16 Years and Older, Full- and Part-Time	19,300		526,490	
Employer	19,300	99.9%	526,490	100.0%
Private, For Profit	7,300	37.7%	231,100	43.9%
Private, Non-Profit	2,700	14.1%	71,100	13.5%
Self-Employed	2,300	12.1%	56,300	10.7%
Government	5,300	27.4%	132,700	25.2%
Other	1,700	8.6%	35,300	6.7%
Work Location	19,300	100.0%	526,490	100.0%
Montgomery County	9,500	49.2%	310,600	59.0%
Prince George's County	2,600	13.4%	26,300	5.0%
Elsewhere in Maryland	1,300	6.6%	23,700	4.5%
Washington, DC	4,600	23.7%	121,600	23.1%
Virginia	1,300	6.5%	38,700	7.4%
Outside MD-VA-DC	100	0.6%	5,500	1.1%
Work Trip	19,300	100.0%	526,490	100.0%
Driving	15,700	81.1%	391,200	74.3%
Alone	14,500	75.2%	365,600	69.4%
Carpool	1,100	5.9%	25,800	4.9%
Public Transit or Rail	3,000	15.6%	93,400	17.7%
Walk/Bicycle/Other	200	0.8%	18,400	3.5%
Work at Home	500	2.5%	23,200	4.4%

Source: 2008 Census Update Survey, Research & Technology Center, MCPD, M-NCPPC, April 2010.

Table A-4: Office Space Trends, Montgomery County and the Washington Metropolitan Area, 2000-2nd Quarter, 2010

											2nd Qtr, 2010	2000-2nd Qtr 2010 Change	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		Amount	Percent
Montgomery County R&D Flex & Office Space													
Total Square Feet at Beginning of Yea	2,822,367	3,116,682	3,116,682	3,116,682	3,326,682	3,326,682	3,398,852	3,398,852	3,398,852	3,398,852	3,398,852	576,485	20.4%
Vacant Square Footage	170,414	377,924	456,814	297,029	498,410	415,476	617,031	2,554,082	661,699	633,755	714,807	544,393	319.5%
Percent Vacant	6.0%	12.1%	14.7%	9.5%	15.0%	12.5%	18.2%	75.1%	19.5%	18.6%	21.0%	15.0%	248.3%
Occupancy Rate	94.0%	87.9%	85.3%	90.5%	85.0%	87.5%	81.8%	24.9%	80.5%	81.4%	79.0%	-15.0%	-16.0%
Average Rate ¹	\$24.53	\$27.58	\$24.08	\$20.73	\$24.11	\$25.42	\$26.36	\$26.40	\$27.00	\$26.58	\$25.93	\$1.40	5.7%
Share of Total Office Inventory	5.1%	5.5%	5.3%	5.1%	5.3%	5.2%	5.3%	5.3%	5.2%	5.1%	5.0%	-0.1%	-2.1%
Montgomery County Medical Office Space													
Total Square Feet at Beginning of Yea	192,524	192,524	192,524	405,312	405,312	405,312	405,312	405,312	405,312	405,312	405,312	212,788	110.5%
Vacant Square Footage	10,013	4,300	8,700	14,500	14,300	14,200	30,000	30,000	49,000	29,000	6,000	-4,013	-40.1%
Percent Vacant	5.2%	1.4%	2.9%	2.2%	3.5%	18.7%	10.8%	13.0%	14.2%	17.6%	21.3%	16.1%	309.6%
Occupancy Rate	94.8%	98.6%	97.1%	97.8%	96.5%	81.3%	89.2%	87.0%	85.8%	82.4%	78.7%	-16.1%	-17.0%
Average Rate ¹	\$24.53	\$27.58	\$24.08	\$20.73	\$24.11	\$25.42	\$26.36	\$26.40	\$27.00	\$26.58	\$25.93	\$1.40	5.7%
Share of Total Office Inventory	0.3%	0.3%	0.3%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.2%	71.1%
Total Montgomery County Office Space													
Total Square Feet	55,009,082	56,343,315	58,653,556	60,624,113	62,311,061	63,759,887	64,120,707	64,562,351	65,556,604	66,451,723	67,678,113	12,669,031	23.0%
New Construction	1,334,233	2,310,241	1,970,557	1,686,948	1,448,826	360,820	441,644	994,253	895,119	1,226,390	0	12,669,031	NA
Total Occupied Square Feet	51,831,370	53,162,378	52,871,207	53,563,680	55,126,832	56,961,374	58,334,864	59,331,032	59,385,243	59,182,417	58,303,686	6,472,316	12.5%
Occupancy Rate	94.2%	94.4%	90.1%	88.4%	88.5%	89.3%	91.0%	91.9%	90.6%	89.1%	86.1%	-8.1%	-8.6%
Net Absorption	1,331,008	(291,171)	692,473	1,563,152	1,834,542	1,373,490	996,168	54,211	(202,826)	(878,731)	264,432	6,736,748	NA
Average Rate ¹	\$26.87	\$27.50	\$27.21	\$26.27	\$25.88	\$26.44	\$27.71	\$29.16	\$30.03	\$28.54	\$28.03	\$1.16	4.3%
Share of Metro Space	15.4%	15.3%	15.3%	15.3%	15.5%	15.6%	15.4%	15.0%	14.9%	14.8%	14.8%	-0.6%	-3.6%
Share of Metro Occupied Space	15.4%	15.3%	15.3%	15.4%	15.5%	15.5%	15.3%	15.2%	15.0%	14.9%	14.7%	-0.6%	-4.2%
Total Washington Metro Area² Office Space													
Total Square Feet	357,897,191	369,409,327	384,057,774	396,475,935	402,079,683	409,159,433	416,396,098	429,520,361	439,381,416	449,078,974	456,864,428	98,967,237	27.7%
New Construction	11,537,834	14,648,447	12,425,500	5,613,850	7,079,750	7,236,665	13,200,315	9,844,795	9,617,897	7,782,798	2,931,665	101,919,516	NA
Total Occupied Square Feet	337,517,802	348,131,945	346,080,363	348,653,027	356,452,790	366,983,117	381,014,263	390,224,671	395,001,587	396,361,897	396,228,251	58,710,449	17.4%
Occupancy Rate	94.3%	94.2%	90.1%	87.9%	88.7%	89.7%	91.5%	90.9%	89.9%	88.3%	86.7%	-7.6%	-8.0%
Net Absorption	11,161,145	4,402,386	2,308,842	4,851,158	9,173,826	11,733,956	8,739,864	5,409,025	1,917,928	1,008,197	2,320,456	63,026,783	NA
Average Rate ¹	\$30.66	\$30.72	\$29.96	\$29.49	\$30.30	\$31.37	\$32.77	\$34.51	\$34.69	\$33.30	\$33.62	\$2.96	9.7%

Note: ¹ Average full service rent, including utilities, taxes and janitorial.

² Washington Metro Area includes Alexandria, Arlington, Charles, Fairfax, Falls Church, Fauquier, Frederick, Fredericksburg, Jefferson, Loudoun, Montgomery, Prince George's, Prince William, Spotsylvania, Stafford Counties, the District of Columbia,

Sources: CoStar; Partners for Economic Solutions, 2010.

Table A-5: Office Space Trends, N. Silver Spring/Route 29, Beltsville/Calverton, Montgomery County and Prince George's County, 2000-2nd Quarter, 2010

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2nd Qtr, 2010	2000-2nd Qtr 2010 Change	
												Amount	Percent
Total N. Silver Spring/Route 29 Office Space													
Total Square Feet	3,298,238	3,369,738	3,369,738	3,483,489	3,483,489	3,518,732	3,518,732	3,518,732	3,547,232	3,547,232	3,602,348	304,110	9.2%
New Construction	71,500	0	113,751	0	35,243	0	0	28,500	0	55,116	0	304,110	NA
Total Occupied Square Feet	3,231,316	3,157,883	3,149,449	3,302,804	3,311,525	3,339,628	3,448,938	3,406,560	3,344,678	3,298,498	3,345,225	113,909	3.5%
Occupancy Rate	98.0%	93.7%	93.5%	94.8%	95.1%	94.9%	98.0%	96.8%	94.3%	93.0%	92.9%	-5.1%	-5.2%
Net Absorption	(73,433)	(8,434)	153,355	8,721	28,103	109,310	(42,378)	(61,882)	(46,180)	46,727	(1,454)	112,455	NA
Average Rate (full service)	\$21.14	\$21.17	\$21.00	\$20.69	\$18.65	\$20.13	\$22.27	\$23.35	\$24.04	\$22.95	\$22.98	\$1.84	8.7%
Share of Montgomery County Space	6.0%	6.0%	5.7%	5.7%	5.6%	5.5%	5.5%	5.5%	5.4%	5.3%	5.3%	-0.7%	-11.0%
Share of Montgomery County Occupied Space	6.2%	5.9%	6.0%	6.2%	6.0%	5.9%	5.9%	5.7%	5.6%	5.6%	5.7%	-0.7%	-10.6%
Total Beltsville/Calverton Office Space													
Total Square Feet	1,734,485	1,734,485	1,734,485	1,734,485	1,734,485	1,734,485	1,734,485	1,734,485	1,734,485	1,734,485	1,734,485	0	0.0%
New Construction	0	0	0	0	0	0	0	0	0	0	0	0	NA
Total Occupied Square Feet	1,538,528	1,626,426	1,545,438	1,484,991	1,435,818	1,393,557	1,435,886	1,466,045	1,515,189	1,488,473	1,441,713	-96,815	-6.3%
Occupancy Rate	88.7%	93.8%	89.1%	85.6%	82.8%	80.3%	82.8%	84.5%	87.4%	85.8%	83.1%	-5.6%	-6.3%
Net Absorption	87,898	(80,988)	(60,447)	(49,173)	(42,261)	42,329	30,159	49,144	(26,716)	(46,760)	(8,027)	-104,842	NA
Average Rate (full service)	\$18.99	\$19.91	\$20.28	\$20.86	\$20.79	\$20.81	\$20.48	\$21.43	\$21.73	\$20.15	\$20.24	\$1.25	6.6%
Share of Prince George's County Space	7.8%	7.7%	7.6%	7.4%	7.4%	7.4%	7.3%	7.2%	7.1%	6.9%	6.9%	-0.9%	-11.7%
Share of Prince George's County Occupied Space	7.7%	8.1%	7.6%	7.2%	7.0%	6.8%	6.8%	7.0%	7.2%	7.2%	7.0%	-0.7%	-9.6%
Total Montgomery County Office Space													
Total Square Feet	55,009,082	56,343,315	58,653,556	60,624,113	62,311,061	63,759,887	64,120,707	64,562,351	65,556,604	66,451,723	67,678,113	12,669,031	23.0%
New Construction	1,334,233	2,310,241	1,970,557	1,686,948	1,448,826	360,820	441,644	994,253	895,119	1,226,390	0	12,669,031	NA
Total Occupied Square Feet	51,831,370	53,162,378	52,871,207	53,563,680	55,126,832	56,961,374	58,334,864	59,331,032	59,385,243	59,182,417	58,303,686	6,472,316	12.5%
Occupancy Rate	94.2%	94.4%	90.1%	88.4%	88.5%	89.3%	91.0%	91.9%	90.6%	89.1%	86.1%	-8.1%	-8.6%
Net Absorption	1,331,008	(291,171)	692,473	1,563,152	1,834,542	1,373,490	996,168	54,211	(202,826)	(878,731)	264,432	6,736,748	NA
Average Rate (full service)	\$26.87	\$27.50	\$27.21	\$26.27	\$25.88	\$26.44	\$27.71	\$29.16	\$30.03	\$28.54	\$28.03	\$1.16	4.3%
Total Prince George's County Office Space													
Total Square Feet	22,226,916	22,606,135	22,675,475	23,302,960	23,325,560	23,513,303	23,758,295	24,132,397	24,548,614	24,994,463	25,160,447	2,933,531	13.2%
New Construction	379,219	69,340	627,485	22,600	187,743	244,992	374,102	416,217	445,849	165,984	0	2,933,531	NA
Total Occupied Square Feet	19,944,066	20,016,797	20,342,868	20,759,066	20,557,711	20,535,248	21,017,376	20,814,900	20,934,036	20,738,465	20,678,990	734,924	3.7%
Occupancy Rate	89.7%	88.5%	89.7%	89.1%	88.1%	87.3%	88.5%	86.3%	85.3%	83.0%	82.2%	-7.5%	-8.4%
Net Absorption	72,731	326,071	416,198	(201,355)	(22,463)	482,128	(202,476)	119,136	(195,571)	(59,475)	11,893	746,817	NA
Average Rate (full service)	\$18.27	\$18.84	\$19.32	\$18.97	\$18.79	\$19.74	\$21.90	\$22.04	\$21.99	\$20.65	\$20.63	\$2.36	12.9%

Note: * Average full service rent, including utilities, taxes and janitorial.

Sources: CoStar; Partners for Economic Solutions, 2010.

Table A-6: Industrial Space Trends, Montgomery County and the Washington Metropolitan Area, 2000-2010

												2000-2010 Change	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Amount	Percent
Total Montgomery County Industrial Space													
Number of Properties	873	892	910	922	927	928	931	936	938	939	939	66	7.6%
Total Square Feet	25,716,678	27,000,636	27,801,550	28,462,781	28,644,346	28,693,346	29,133,258	29,378,888	29,484,888	29,523,964	29,523,964	3,807,286	14.8%
Vacant Square Feet	1,037,954	1,493,733	1,902,664	1,637,681	1,885,636	1,927,013	1,658,317	1,930,160	2,188,376	2,190,247	2,464,741	1,426,787	137.5%
Total Occupied Square Feet	24,678,724	25,506,903	25,898,886	26,825,100	26,758,710	26,766,333	27,474,941	27,448,728	27,296,512	27,333,717	27,059,223	2,380,499	9.6%
Occupancy Rate	96.0%	94.5%	93.2%	94.2%	93.4%	93.3%	94.3%	93.4%	92.6%	92.6%	91.7%	-4.3%	-4.5%
Average Rate ¹	\$10.10	\$10.78	\$12.99	\$12.73	\$12.62	\$13.18	\$15.97	\$15.83	\$15.36	\$15.25	\$12.96	\$2.86	28.3%
Share of Metro Space	12.9%	13.2%	13.1%	13.3%	13.2%	13.0%	12.9%	12.7%	12.6%	12.4%	12.3%	-0.6%	-4.4%
Total Prince George's County Industrial Space													
Number of Properties	1,567	1,574	1,581	1,590	1,599	1,604	1,617	1,624	1,629	1,643	1,649	82	5.2%
Total Square Feet	55,518,759	55,879,570	56,522,775	56,946,909	57,344,558	57,834,743	58,797,607	59,252,004	59,564,261	60,431,583	60,706,892	5,188,133	9.3%
Vacant Square Feet	5,228,995	4,907,691	4,694,219	5,328,234	5,612,862	4,999,948	5,092,353	5,464,422	5,598,419	5,753,030	7,414,212	2,185,217	41.8%
Total Occupied Square Feet	50,289,764	50,971,879	51,828,556	51,618,675	51,731,696	52,834,795	53,705,254	53,787,582	53,965,842	54,678,553	53,292,680	3,002,916	6.0%
Occupancy Rate	90.6%	91.2%	91.7%	90.6%	90.2%	91.4%	91.3%	90.8%	90.6%	90.5%	87.8%	-2.8%	-3.1%
Average Rate ¹	\$4.55	\$5.40	\$5.31	\$5.19	\$6.40	\$6.61	\$7.02	\$6.93	\$7.18	\$7.25	\$7.00	\$2.45	53.8%
Share of Metro Space	27.8%	27.3%	26.7%	26.5%	26.4%	26.2%	26.0%	25.7%	25.4%	25.3%	25.3%	-2.5%	-9.0%
Total Washington Metro Area² Industrial Space													
Number of Properties	5,791	5,877	5,979	6,046	6,095	6,167	6,276	6,363	6,466	6,533	6,568	777	13.4%
Total Square Feet	199,874,281	204,955,395	211,626,646	214,813,016	217,006,362	220,887,478	226,538,488	230,611,659	234,522,410	238,600,908	240,128,881	40,254,600	20.1%
Vacant Square Feet	10,138,374	12,594,047	15,629,313	17,981,020	17,902,354	16,006,594	16,467,736	17,286,441	20,285,142	23,694,959	28,558,490	18,420,116	181.7%
Total Occupied Square Feet	189,735,907	192,361,348	195,997,333	196,831,996	199,104,008	204,880,884	210,070,752	213,325,218	214,237,268	214,905,949	211,570,391	21,834,484	11.5%
Occupancy Rate	94.9%	93.9%	92.6%	91.6%	91.8%	92.8%	92.7%	92.5%	91.4%	90.1%	88.1%	-6.8%	-7.2%
Average Rate ¹	\$6.50	\$8.14	\$9.04	\$7.78	\$9.68	\$9.57	\$10.22	\$9.95	\$10.17	\$9.79	\$8.79	\$2.29	35.2%

Note: ¹ Average triple net rent, excluding utilities, taxes and janitorial.

² Washington Metro Area includes Alexandria, Arlington, Charles, Fairfax, Falls Church, Fauquier, Frederick, Fredericksburg, Jefferson, Loudoun, Montgomery, Prince George's, Prince William, Spotsylvania, Stafford Counties, the District of Columbia.

Sources: CoStar; Partners for Economic Solutions, 2010.

Table A-7: Industrial Space Trends, Route 29 Corridor, Beltsville, Silver Spring, and Laurel Submarkets, 2001-2nd Quarter, 2010

										2nd Qtr,	2000-2nd Qtr 2010 Change	
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Amount	Percent
Route 29 Corridor Industrial Space												
Total Square Feet at Beginning of Year	1,715,994	1,774,309	1,797,653	1,797,653	1,797,653	1,797,653	1,797,653	1,797,653	1,797,653	1,797,653	81,659	4.8%
New Construction	58,315	23,344	0	0	0	0	0	0	0	0	81,659	NA
Total Occupied Square Feet	1,600,677	1,652,930	1,662,678	1,623,866	1,596,439	1,645,652	1,639,066	1,613,011	1,680,571	1,634,452	33,775	2.1%
Occupancy Rate	93.3%	93.2%	92.5%	90.3%	88.8%	91.5%	91.2%	89.7%	93.5%	90.9%	-2.4%	-2.5%
Net Absorption	52,253	25,623	(29,732)	(56,382)	69,088	13,414	(29,357)	70,862	(73,204)	26,565	69,130	NA
Average Rate ¹	\$10.11	\$15.50	\$6.58	\$10.51	\$10.38	\$10.41	\$8.64	\$10.86	\$12.71	\$12.70	\$2.59	25.6%
Silver Spring Industrial Space												
Total Square Feet at Beginning of Year	1,302,631	1,302,631	1,302,631	1,302,631	1,302,631	1,302,631	1,302,631	1,302,631	1,302,631	1,302,631	0	0.0%
New Construction	0	0	0	0	0	0	0	0	0	0	0	NA
Total Occupied Square Feet	1,238,471	1,248,734	1,267,544	1,259,456	1,271,921	1,277,851	1,290,395	1,293,096	1,226,270	1,209,065	-29,406	-2.4%
Occupancy Rate	95.1%	95.9%	97.3%	96.7%	97.6%	98.1%	99.1%	99.3%	94.1%	92.8%	-2.3%	-2.4%
Net Absorption	12,763	16,310	(2,213)	6,590	5,930	12,544	2,701	(60,826)	(23,205)	1,631	-27,775	NA
Average Rate ¹	\$8.25	NA	\$9.25	NA	\$9.00	\$10.67	\$17.08	\$12.47	\$10.72	\$10.46	\$2.21	26.8%
Beltsville Industrial Space												
Total Square Feet at Beginning of Year	9,225,381	9,433,011	9,449,011	9,646,224	9,646,224	9,646,224	9,698,594	9,713,594	9,731,894	9,731,894	506,513	5.5%
New Construction	207,630	16,000	197,213	0	0	52,370	15,000	18,300	0	0	506,513	NA
Total Occupied Square Feet	8,569,284	9,010,893	8,876,675	8,679,611	8,782,218	8,788,513	8,993,463	8,988,670	8,988,740	8,704,343	135,059	1.6%
Occupancy Rate	92.9%	95.5%	93.9%	90.0%	91.0%	91.1%	92.7%	92.5%	92.4%	89.4%	-3.4%	-3.7%
Net Absorption	238,841	(26,398)	(52,068)	(97,284)	(62,330)	212,550	20,467	28,216	(239,851)	(11,460)	10,683	NA
Average Rate ¹	\$8.59	\$6.70	\$8.72	\$8.01	\$7.98	\$8.02	\$8.16	\$8.80	\$8.04	\$8.10	-\$0.49	-5.7%
Laurel Industrial Space												
Total Square Feet at Beginning of Year	3,204,547	3,204,547	3,294,547	3,314,547	3,314,547	3,314,547	3,314,547	3,314,547	3,465,753	3,741,062	536,515	16.7%
New Construction	0	90,000	20,000	0	0	0	0	151,206	275,309	0	536,515	NA
Total Occupied Square Feet	2,857,624	3,098,929	3,116,943	2,885,992	3,017,517	3,263,447	3,109,563	3,084,562	3,051,297	3,126,967	269,343	9.4%
Occupancy Rate	89.2%	96.7%	94.6%	87.1%	91.0%	98.5%	93.8%	93.1%	88.0%	83.6%	-5.6%	-6.3%
Net Absorption	91,285	18,014	(146,251)	131,525	161,230	(153,884)	24,499	(78,685)	101,670	(50,090)	99,313	NA
Average Rate ¹	\$5.92	\$7.39	\$7.91	\$12.00	\$9.57	\$8.74	\$10.29	\$9.38	\$8.71	\$8.39	\$2.47	41.7%

Note: ¹ Average triple net rent, excluding utilities, taxes and janitorial.

Sources: CoStar; Partners for Economic Solutions, 2010.

Table A-8. White Oak Primary and Secondary Market Area Spending Patterns				
	Primary Market Area		Secondary Market Area	
Current Population	22,065		29,218	
Households	8,259		9,519	
Median Household Disposable Income	\$54,019		\$58,673	
Retail Spending by Category	Amount	Percent	Amount	Percent
Neighborhood Goods & Services				
Health and Personal Care Stores	\$ 7,365,625	4.8%	\$ 9,406,590	6.2%
Grocery Stores	\$ 47,992,192	31.4%	\$ 60,833,867	39.8%
Specialty Food Stores	\$ 614,673	0.4%	\$ 878,556	0.6%
Beer, Wine and Liquor Stores	\$ 2,239,071	1.5%	\$ 2,929,884	1.9%
	\$ 58,211,561	38.1%	\$ 74,048,897	48.4%
Food Establishments				
Food Away from Home	\$ 37,756,253	24.7%	\$ 47,920,374	31.3%
GAFO (General Merchandise, Apparel, Furnishings & Other Miscellaneous Retail)				
Apparel and Accessories	\$ 12,814,804	8.4%	\$ 16,246,583	10.6%
Furniture and Furnishings	\$ 8,543,500	5.6%	\$ 11,412,937	7.5%
General Merchandise	\$ 17,190,385	11.2%	\$ 23,565,530	15.4%
Other Retail	\$ 18,346,709	12.0%	\$ 23,295,010	15.2%
	\$ 56,895,398	37.2%	\$ 74,520,060	48.7%
Total Non-Auto Retail Spending	\$ 152,863,212	100.0%	\$ 196,489,331	128.5%

Source: ESRI; Partners for Economic Solutions, 2010.

Table A-9. White Oak Retailers' Potential Capture of Market Area Residents' Spending					
	Primary Market Area		Secondary Market Area		Total Resident Spending
Retail Spending by Category	Percent Capture	Amount	Percent Capture	Amount	
Neighborhood Goods & Services					
Health and Personal Care Stores	90%	\$ 6,629,000	25%	\$ 2,352,000	\$ 8,981,000
Grocery Stores	75%	\$ 35,994,000	20%	\$ 12,167,000	\$ 48,161,000
Specialty Food Stores	70%	\$ 430,000	25%	\$ 220,000	\$ 650,000
Beer, Wine and Liquor Stores	85%	\$ 1,903,000	20%	\$ 586,000	\$ 2,489,000
		\$ 44,956,000		\$ 15,325,000	\$ 60,281,000
Food Establishments					
Food Away from Home	40%	\$ 15,103,000	15%	\$ 7,188,000	\$ 22,291,000
GAFO (General Merchandise, Apparel, Furnishings & Other Miscellaneous Retail)					
Apparel and Accessories	5%	\$ 641,000	2%	\$ 325,000	\$ 966,000
Furniture and Furnishings	20%	\$ 1,709,000	10%	\$ 1,141,000	\$ 2,850,000
General Merchandise	20%	\$ 3,438,000	10%	\$ 2,357,000	\$ 5,795,000
Other Retail	25%	\$ 4,587,000	15%	\$ 3,494,000	\$ 8,081,000
		\$ 10,375,000		\$ 7,317,000	\$ 17,692,000
Total Non-Auto Retail Spending		\$ 70,434,000		\$ 29,830,000	\$ 100,264,000
Source: ESRI; Partners for Economic Solutions, 2010.					

Source: ESRI; Partners for Economic Solutions, 2010.

Table A-10. White Oak Employee Spending Potential				
Current Employment ¹	7,600			
Retail Spending by Category	Annual Spending per Employee	Total Potential	Percent Capture	Total Sales
Grocery Stores	\$519	\$ 3,944,000	50%	\$ 1,972,000
Neighborhood Goods & Services	\$475	\$ 3,610,000	40%	\$ 1,444,000
Food Establishments	\$1,459	\$ 11,088,000	25%	\$ 2,772,000
GAFO (General Merchandise, Apparel, Furnishings & Other Miscellaneous Retail)	\$1,452	\$ 11,035,200	5%	\$ 552,000
Total Non-Auto Retail Spending at Work		\$ 29,677,200		\$ 6,740,000
Note: ¹ Office and FDA employees in Transportation Analysis Zones 85, 87, 88, 89, 90 and 91 within one mile of White Oak Shopping Center.				
Source: Metropolitan Washington Council of Governments 2010 TAZ Projections, Round 7.2; Food & Drug Administration: International Council of Shopping Centers, 2004; Partners for Economic Solutions, 2010.				

Table A-11. White Oak Visitor Spending Potential, 2011				
Day Visitors per Year ¹	125,000			
Overnight Hotel Room-Nights per Year ²	68,000			
Average Party Size	1.40	persons/room		
Hotel Visitor-Days per Year	95,000			
Retail Spending by Category	Daily Spending per Visitor	Total Potential	Percent Capture	Total Sales
Neighborhood Goods & Services	\$1	\$ 220,000	25%	\$ 55,000
Food Establishments				
Day Visitors	\$8	\$ 1,000,000	20%	\$ 200,000
Overnight Hotel Guests	\$20	\$ 1,900,000	15%	\$ 285,000
Total Non-Auto Retail Spending		\$ 3,120,000		\$ 540,000
Notes: ¹ Based on an estimated 500 visitors per day to the FDA and area businesses, excluding holidays.				
² Based on average occupancy of 65 percent, excluding 25 percent for overlap with daily visitors.				
Source: Partners for Economic Solutions, 2010.				

Table A-12: Hotel Occupancy by Day of Week			
	Year Ending		
	July-08	July-09	July-10
Day of Week			
Monday	62.7%	59.2%	62.0%
Tuesday	71.9%	67.4%	66.9%
Wednesday	72.6%	67.6%	68.7%
Thursday	60.6%	58.3%	60.2%
Friday	57.8%	58.1%	64.7%
Saturday	61.4%	60.6%	65.8%
Sunday	46.1%	46.2%	45.3%
Total	61.9%	59.6%	61.9%
Source: STR Global; PES, 2010.			

Table A-13: Hotel Occupancy by Month					
	2006	2007	2008	2009	Four-Year Average
Month					
January	42.5%	48.2%	43.0%	46.9%	45.2%
February	58.0%	50.0%	48.7%	43.9%	50.2%
March	69.8%	72.3%	61.8%	48.9%	63.2%
April	78.4%	77.8%	69.3%	66.3%	73.0%
May	76.6%	77.8%	73.2%	71.2%	74.7%
June	80.1%	79.3%	72.1%	72.1%	75.9%
July	70.7%	65.8%	72.2%	70.0%	69.7%
August	58.3%	65.4%	54.3%	61.4%	59.8%
September	65.3%	59.6%	64.0%	59.3%	62.0%
October	75.0%	72.0%	69.4%	62.6%	69.7%
November	58.6%	61.4%	64.1%	49.8%	58.5%
December	48.3%	43.1%	43.8%	41.7%	44.2%
Total	65.1%	64.5%	61.4%	57.9%	62.2%
Source: STR Global; Partners for Economic Solutions, 2010.					

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