PENNHURST: A COMMUNITY OF CONSCIENCE

A MARKET ANALYSIS STUDY FOR:

Outlet Retail – Cristina Stiller

Boarding School – Donald Johnson

Single-Family Housing – Katie Coffield

Multi-Family Housing – Chevone Hall

Senior Housing – Ziqi Wu

Cornell University

2010 – 2011

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EXECUTIVE SUMMARY

By Katie Coffield

The former Pennhurst State School and Hospital is located in the East Vincent Township of Chester County, Pennsylvania. The site overlooks the Schuylkill River, offering dramatic views of the river valley and the pastoral landscape. Strategically located 45 minutes west of Philadelphia and 15 minutes north of Valley Forge, the site combines a thriving economic marketplace with the serene beauty of rural living. The 112-acre site is relatively secluded, surrounded by woods and offering only two access points. The original campus comprises 17 buildings, dating between 1908 and 1948. The brick buildings, constructed with distinctive architectural style, feature interior floor plans that can be easily adapted to suit multiple uses. Many of these buildings, however, have fallen into disrepair since the campus was abandoned in 1987. The facility was closed following a precedent-setting court case that declared the forced institutionalization of persons with disabilities to be unconstitutional. The site was designated as an International Site of Conscience due to its role in civil rights reform. The site's positive legacy as a "community of conscience" should be capitalized upon for future reuse and redevelopment opportunities. The physical beauty of the Pennhurst site and its surroundings, as well as the institution's history, set it apart from the cookie-cutter suburban development that has occurred throughout the region over the past decades.

Pennhurst is situated within the US Route 422 corridor, one of the fastest growing and most affluent regions in the Philadelphia Metropolitan Statistical Area. Carrying over 100,000 vehicles per day, the roadway connects major centers of economic activity such as King of Prussia, Reading, Valley Forge, and Philadelphia. The Delaware Valley Regional Planning Commission (DVRPC) forecasts the creation of 28,000 new jobs along the US Route 422 corridor before 2030. The increase in employment opportunities will likely increase the number of households and raise the median household income, stimulating demand for retail, housing, and schools. Pennhurst's location within 5 miles of the major roadway makes the site ideal for future development opportunities.

The market study examined the demand for Outlet Retail, Multi-Family Housing, Single-Family Housing, Senior Housing, and a Boarding School on the Pennhurst State Hospital site. Demographic data from the US Census and other sources were used as the basis for the supply and demand analyses. A brief summary of the market for each use-type is provided in the following pages.

- **Outlet Retail:** There are currently 19 outlets located within the Philadelphia submarket. Of these, Philadelphia Premium Outlets, a 425,000 square foot outlet with over 150 stores, is located within a 5-minute drive from the Pennhurst site in Limerick, PA. This competition, combined with the population growth rate, absorption rate, vacancy rate and other demographic factors suggests that the Pennhurst site is not the ideal market for an outlet mall. Despite this, Chester County does have a shortage of local retail centers. So though the site is not ideal for a large-radius mall, like an outlet or a regional/super-regional center, retail on the whole should not be ruled out.

- **Multi-Family Housing:** There is little overall demand to support strong rental housing growth based on market analysis data. Local residents are generally a mix of middle-aged and older, educated, and affluent residents. Most of these households do not have children, and residents typically own their own homes and hold management-level positions. Successful rental development would need to appeal to the older upper-class who may want to downsize to an apartment or condo or to the anticipated population growth of younger residents ages 18-44. Garden apartments or townhouse-like apartments within larger mixed-use communities will fare the best.

- **Single-Family Housing:** The single-family housing market in the market area is characterized by oversaturation and faltering consumer confidence. Despite the predicted growth of family households and median income in Chester and Montgomery counties, a buyer's market exists in the region. Absorption rates in December 2010 indicate a 10-month supply of homes in Chester County and a 9-month supply of homes in Montgomery County. Trends further show that the average number of homes sold in the market area has decreased steadily since the end of 2007. The economic downturn has resulted in the lowest amount of residential development activity experienced by both Chester and Montgomery counties in the past decades.

- **Senior Housing:** The rapidly aging population in the local market area indicates strong demand for senior services and housing now and in the future. The assessment of existing senior housing in the market area revealed that the condition of most facilities was inadequate, indicating an advantage for new senior living developments. Strong market penetration exists for independent-living, skilled nursing, and continuing-care retirement communities. These trends are coupled with relatively strong absorption rates. The risk of overbuilding in the senior housing sector ranges from minimal to low, given the limited construction of senior housing options in the market area.

- **Boarding School:** While local population projections suggest that an additional school will over saturate the local market, there does appear to be a market for better education in the area. Marketing for a new boarding school could target several underperforming school districts in the area. Since the number of children entering area school systems is expected to slowly decline over the next 20 years, demand for a new boarding school must be met by students within the current school system. Even then, Pennhurst would only have to market to under 1 percent to meet the average local student population of approximately 56 students. The remainder of students could be recruited from national and international markets. Regions in the South and West show strong growth patterns, indicating a 20 percent increase in school-aged children over the next 20 years. In addition, states in these regions, including include Hawaii, South Carolina, and Georgia, consistently rank in the bottom five states for SAT scores.

The results of the market analysis indicate senior housing is the most feasible option for the reuse and redevelopment of the Pennhurst site. Based on evaluating the different senior living segments, we recommend developing an independent living, skilled nursing or an entrance fee Continuing Care Retirement Community at Pennhurst. Opportunities should be explored to collaborate with Generations of Hope, a non-profit group that promotes the co-habitation of adopted children and older adults in the same community. The Generations of Hope communities (GHC) operate on the principle that children can benefit from the support of seniors, while seniors can benefit from actively caring for and mentoring children. The campus layout at Pennhurst is optimal for GHC goal of developing social bonds between residents, although an additional feasibility study specific to the senior housing industry should be conducted to determine if new building additions are needed.

In addition, a number of analyses demonstrated that certain uses could potentially be feasible when incorporated into a mixed-use development. A mixed-use concept for the site could cater to the growing demand for communities friendly to a variety of age groups. The site could integrate retail uses, as well as single- and multi-family housing options. The potential development could be marketed on the basis of Pennhurst's scenic setting, unique architecture and history, effectively setting the project apart other mixed-use developments in the region. Finally, a mixed-use development could serve as a needed hub of social and economic activity for the surrounding community. Currently, the area surrounding the Pennhurst campus does not possess a strong community identity, highlighted by a sense of discord and lack of communication between the townships surrounding the site. A mixed-use development at this the Pennhurst site could serve to unify the community and provide a sense of identity.

SECTION I: SITE DESCRIPTION
By Cristina Stiller & Ziqi Wu

LOCATION

Pennhurst State School and Hospital is located in the East Vincent Township of Chester County, Pennsylvania. The site is located approximately 45 minutes west of Philadelphia and 15 minutes north of Valley Forge. The campus is situated upon a hill along the Schuylkill River.

HISTORY

Originally named the Eastern Pennsylvania Institution for the Feeble Minded and Epileptic, Pennhurst opened its doors to "Patient Number 1" in 1908. Almost from its onset, the Pennhurst campus was under-staffed and over-crowded. This, combined with a severe lack of funding, lead to the poor living conditions that have made Pennhurst's past infamous.

For example, because staffing at Pennhurst was so inadequate, restraints were liberally used to control patients. In some examples, restraints were used for upwards of 600 hours per month. Psychological staffing on the campus was also severely inadequate. No mental health specialists worked at Pennhurst at night or on weekends, forcing patients undergoing psychological trauma to "wait out" their crises. When medical help was present, doctors would prescribe psychotropic drugs to control the patients, rather than to treat patients. The rate of drug use on the campus was unusually high in comparison to similar hospitals. In addition, the physical conditions at Pennhurst were nearly unlivable. Bathrooms were notoriously unclean and patients who could not toilet themselves would often have to live in their own waste because there was simply not enough staff to care for them. Though these conditions can be attributed to funding issues and other setbacks out of Pennhurst staff control, there were many incidents of staff abuse towards patients, including physical abuse and rape.

Though these incidents were isolated, they contribute to the negative imagery of Pennhurst's past. Nearly 80 years after the school opened, these conditions were brought to light under the Halderman vs. Pennhurst State School trial. The evidence against Pennhurst was overwhelming and lead to the school's closure in 1986-1987. Remaining patients were moved out of Pennhurst and either transferred to other group homes or reintroduced into society. Some remember their time at Pennhurst fondly and have been able to return to normal lives. Others, however, have remained in the care of group homes.
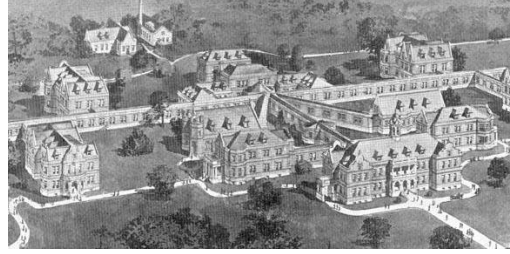
In February, 2008, the current owners of the property, Pennhurst Associates, purchased the site for $2.0 million. In 2010, Penn Organic Recycling LLC began operating a tipping, composting, and food waste service on four-and-a-half acres of the site.

PHYSICAL DESCRIPTION

The lower portion of the Pennhurst site houses 17 main buildings and offers approximately 636,454[1] square feet in terms of floor space. The buildings are arranged in a campus format and linked to one another by exterior pedestrian walkways and ramps, and an underground system of corridors.

The buildings on the site were constructed between 1888 and 1948, with interesting architecture that is unique to the region. For example, the Philadelphia, Mayflower, Tinicum, Union, Vincennes and Rockwell Halls were all constructed using a brick exterior ornamented with stone band. About 50,000 square feet of the remaining floor area has been scaled off due to life safety code issues and other issues. The remaining first, second and third floor spaces are usable and totals 373,000 square feet. The ceiling heights are relatively generous, ranging from 11 to 15 feet. Most of the buildings contain large open rooms with temporary or non load-bearing walls allow for larger open spaces to be created.

Summary of square footage and average ceiling heights of buildings at Pennhurst

Total Floors	Square Footage	Average Ceiling Height
Basement	127,200	11'3"
First	164,626	14'8"
Second	156,314	12'8"
Third	52,454	11'0"
Attic	135,860	5'0"
Total	636,454	---

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[1] However, about 136,000 square feet and 127,000 square feet is attic and basement space respectively, limiting its potential use.

The buildings are all handicapped accessible making it adaptable for re-use as a facility for seniors and for people with disabilities. Only the hospital (which building) houses elevators, which could potentially provide handicapped access beyond the ground floor.

According to the Department of Public Welfare surveys, the buildings were in relatively good structural condition at the time of the survey in 1991. The *Planning a Community of Conscience* report also concluded that the exterior walls were in fair to good condition (Community Design Collaborative, 2009). However, due to the lack of maintenance, the buildings deteriorated greatly. **Appendix A** summarizes the issues with each building.

Based on the building assessment by the Community Design Collaborative (2009), it was recommended that any reuse plan to include the preservation and retrofitting of nine buildings that form the major quad of the original historic campus and provide a "critical mass" that is necessary for the successful understanding and interpretation of the Pennhurst site by future users and visitors. These buildings include Limerick, Industry, Hershey, Philadelphia, Mayflower, Quaker and Rockwell Halls, the Administration Building, and Dietary/Franklin Hall.
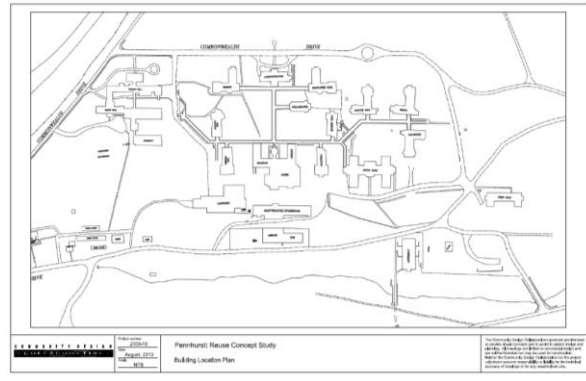
The Collaborative also suggested that Dietary be replaced with a new structure, compatible in design to the original historic structure because of its difficult configuration of interior spaces (*ibid*). In addition, Devon and Assembly Halls were suggested to be reused even though they do not form the historic core as the buildings have retained much of their integrity and would make valuable additions to any proposed development (*ibid*).

The following measures were recommended to retrofit the Pennhurst buildings and make them watertight:

- Replace all roofing as required
- Replace all gutter and downspouts
- Repair and/or replace and paint all exterior trim
- Replace all doors and windows or close those openings with watertight enclosures
- Point all masonry as required
- Repair all cracked masonry
- Repair of all damaged and collapsed framing to verify that the walls are properly braced and that no framing is in the state of imminent collapse.
- Removal of all vegetation growing on or touching the buildings
- Clean all exterior masonry as required
- Repair and replace all fire escapes and pedestrian bridges as necessary
- Rebuild the retaining wall at the hospital

SECTION II: SITE ANALYSIS
By Donald Johnson & Chevone Hall

LAND USE & ZONING

The Pennhurst site, located within the East Vincent Township, is zoned Low-Density Residential as shown in **Figure 1**. Within this zoning classification, its land use is designated as a community facility, which is generally used to serve the public **(Figure 2)**. The land use map shows that the site is bounded by various land uses to include wooded, agricultural and vacant land, although the zoning map shows rural conservation to the north, east and west and High-Density Residential, to the south.
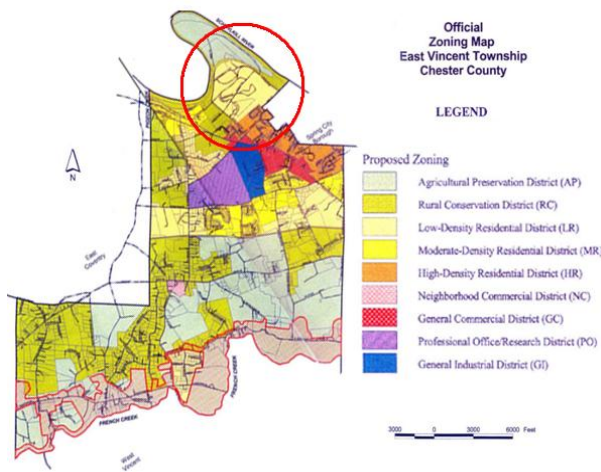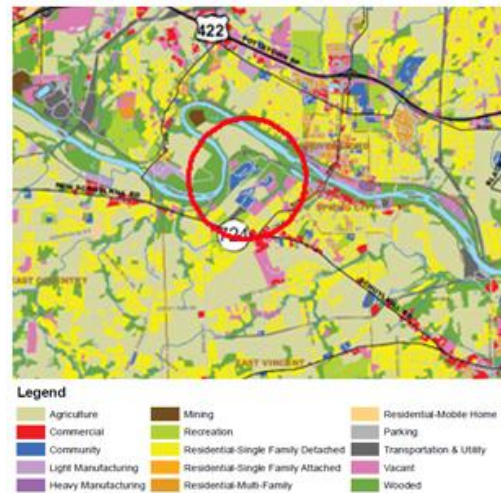
Figure 1: East Vincent Zoning Map

Figure 2: 2005 Land Use Map

The land use maps for Chester and Montgomery counties are included in **Appendix B**. Agriculture, single-family housing and woodland areas are the most evident land uses in Chester and Montgomery counties.
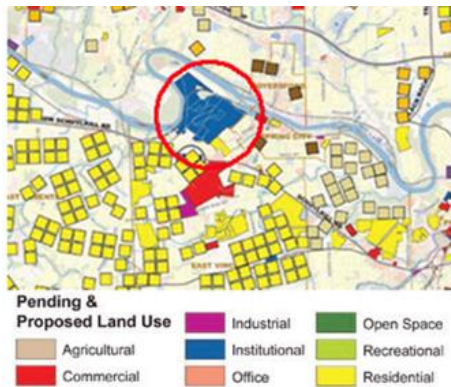
Figure 3: 2030 Land Use Map

The Delaware Valley Regional Planning Council (DVRPC), however, identified a decrease in agriculture land by nearly 30% and woodland at 14% from 1995 to 2005. DVRPC has also predicted increases in individual land use classifications among residential at 18%, community facilities at 15%, commercial use at 11%, manufacturing at 4%, and transportation at 4%. Projected land use trends shown in the 2030 map (**Figure 3**) further illustrate an increase in the previous 1995 to 2005 trend.

Of the five market analyses of this report, three uses could be used in some fashion within the current zoning ordinances. Permitted uses under this zoning classification include single-family housing, public schools/other educational uses and group homes or convalescent homes. While the term "educational use" does not specifically prohibit the use of a boarding school on the site, the size of the development may prove to be far too intensive for the purposes within the current district. The intensity of the senior housing will also be limited by the density of single-family housing requirements. There are however no provisions to allow the use of retail or multi-family housing on the site, although zoning variances may be granted.

The East Vincent Township states within their Low-Density Residential ordinance, the district's goal is to provide development that is "consistent with existing residential development patterns" and provides a "semi-rural residential character". While certain uses may function on the site, the current zoning does not adequately serve each use other than single-family housing. As a result, if there is an adequate market for one or all of the other four development types, the zoning needs to change in order to accommodate their uses. To accommodate Multi-family housing, the zoning would be required to be changed to High-Density Residential (HR), Retail would need to be zoned for either a Neighborhood Commercial (NC) or General Commercial (GC), Senior Housing would need to be High-Density Residential (HR) or Industrial/Professional Office (PO), and Boarding School would need to be Industrial/Professional Office (PO). Since the site is so large at 112 acres, any limitation on setbacks could be negligible, depending on the design layout and proposed intensity.

ACCESSIBILITY & SITE ACCESS POINTS

The Pennhurst campus is accessible by the several roads shown below: Commonwealth Drive, Brown Drive, Pennhurst Rd., Veterans Drive, Dunlap Rd. and N Church St.
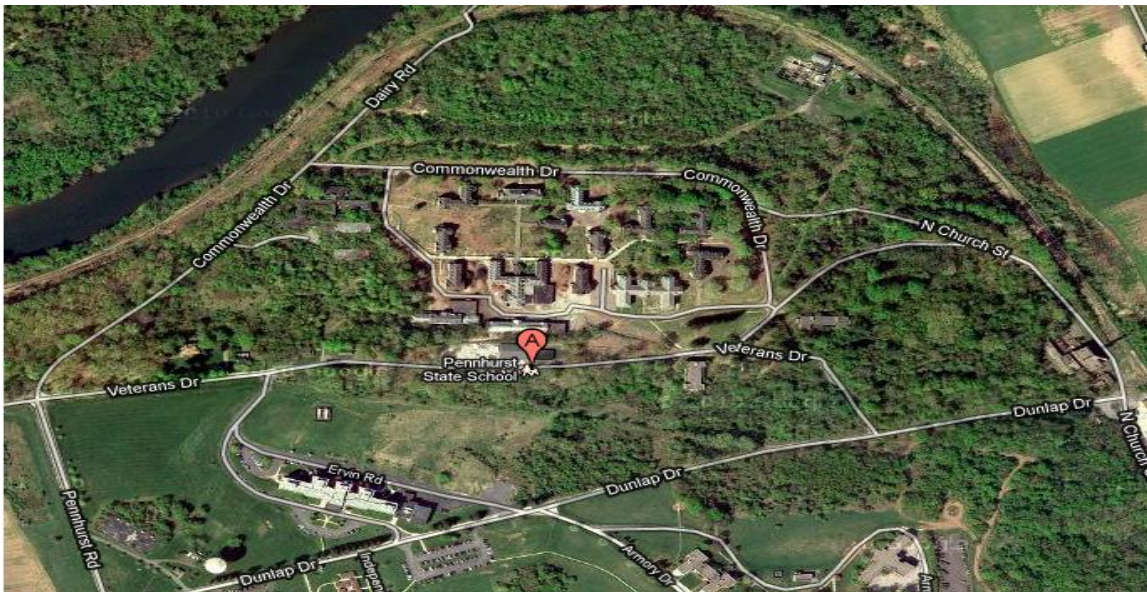
Although there is no direct access to major byways, the campus is within close proximity to Route 724 and US Highway 422. The site is cut off to the north and east by the Schuylkill river. The nearest crossing points are Main St. (to the North) and Bridge St. (to the South East), where there is an intersection with North Church St. leading to the campus.


maps.google.com

RELATIONSHIP TO THE US 422 CORRIDOR

The Following is Excerpted from DVRPC's US 422 Corridor Master Plan Summary Report

"The US 422 Corridor planning area, from King of Prussia to southeastern Berks County, includes a considerable planning area encompassing over 200 square miles in southern Montgomery, northern Chester and southern Berks Counties, Pennsylvania. The corridor is approximately 25 miles long, spanning three counties and encompassing 24 local municipalities. The corridor begins 20 miles west of Philadelphia in Upper Merion Township, and extends west to Amity Township in Berks County. The Pennhurst region, a landscape of rolling hills, is bisected by the Schuylkill River. The river valley was an important transportation route in the eras of canals and railroads, connecting Philadelphia and its port with the rich, coal, iron ore and lumber regions to the north and west. The older communities within the planning area (now boroughs) are either river towns or are located along Ridge Pike. The most densely developed and heavily populated area is King of Prussia to the east. Home to one of the nation's largest shopping malls, King of Prussia is located at the interchange of the Pennsylvania Turnpike (I-76/276) and the Schuylkill Expressway (I-76). This edge city grew extensively after the completion of the interchange between the two expressways and is now a major retail and employment center. This growth extends along the US 202 corridor. Similarly, the growth of newer and emerging suburban areas is being fueled by access to US 422."

TRAFFIC

Officials are concerned with traffic congestion in the years to come. According to traffic maps provided by dot.state.pa.us, traffic counts are low if not non-existant near the Pennhurst campus. Moving outward, it is appearant that traffic grows further to the left and furthest to the south nearing Spring City. On the other side of the River, the same instance can be found. Naturally, traffic counts grow nearing the cross points from one side of the river to the other.
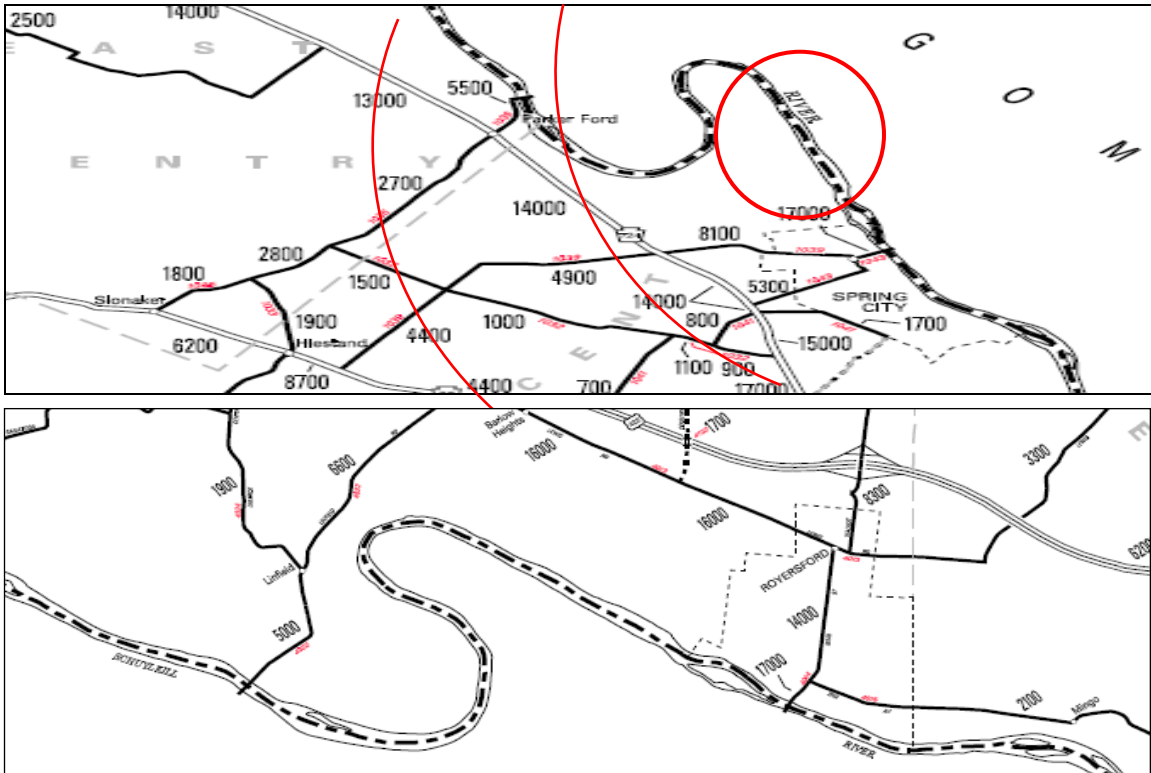
According to Nielsen research, employed residents on average, travel about half an hour to get to work. Less than 10% travel an hour or more to get to work and each household in the adjacent counties owns about 2 cars.

Pop Facts:	Chester County, PA		Montgomery County, PA	
2000 Workers Age 16 and Over by Travel Time to Work	207,447		366,295	
Less than 15 Minutes	53,435	25.76%	100,063	27.32%
15 to 29 Minutes	69,913	33.70%	119,432	32.61%
30 to 44 Minutes	44,320	21.36%	80,722	22.04%
45 to 59 Minutes	21,253	10.25%	37,043	10.11%
60 or more Minutes	18,526	8.93%	29,035	7.93%
2000 Average Travel Time to Work in Minutes	29.83		29.04	

Officials are concerned with traffic congestion in the years to come and listed the following concerns with current conditions:

- Peak period traffic congestion is frequent

- Crash rates are 150% higher than the state average at a number of locations

- The Schuylkill River and Valley Forge National Historical Park restrict transportation development

- There is no passenger rail service west of Norristown

- The only transit service between downtowns is infrequent bus service

- The long-planned Intermodal Transportation Center in Paoli still does not exist

- Large, low-density, single-use development patterns mean limited mobility options

The following is a depiction of the proposed transportation plan for the US422 corridor along with stated improvements. Undoubtedly, Pennhurst Campus could derive more traffic for its intended use by incorporating a number of these.

- Extend R6 passenger rail service from Norristown through Pottstown to Wyomissing

- Add capacity to US 422 where needed

- Dedicate a portion of the US 422 right-of-way to Bus Rapid Transit (BRT)

- Provide new roadway linkages where needed

- Enhance river crossings

- Improve intersection geometry and operations

- Develop a section of Township Line Road into a complete street

- Build new park-and-ride facilities

- Expand the multi-use trail system

SECTION III: DEMOGRAPHIC ANALYSIS
By Cristina Stiller

The Pennhurst site is located within the tri-county region along the US 422 Corridor. According to CoStar, the number of households in the region is expected to grow by 7 percent over the next 5 years, nearly doubling Pennsylvania's expected 4 percent growth rate.

Chester and Montgomery counties are amongst the fastest growing and most affluent municipalities in Pennsylvania. Biotech and Pharmaceutical industries, as well as high-tech companies located along the Route 202 corridor, are a major part of the Chester and Montgomery county economies. As the counties have grown economically over the past ten years, housing prices have steadily increased. Both counties are projected to continue to grow in size and affluence through 2014.

Another significant economic trend both in the State of Pennsylvania and Chester and Montgomery counties is the growing senior population. According to Main-Line Today magazine, Pennsylvania's 65-and-older population ranks third in the United States. In fact, by 2020, Pennsylvania's 60-and-older age group is predicted to comprise 25 percent of the state's total population. The senior population in Chester and Montgomery counties is large compared to other age groups and will continue to grow over into the foreseeable future.[2]

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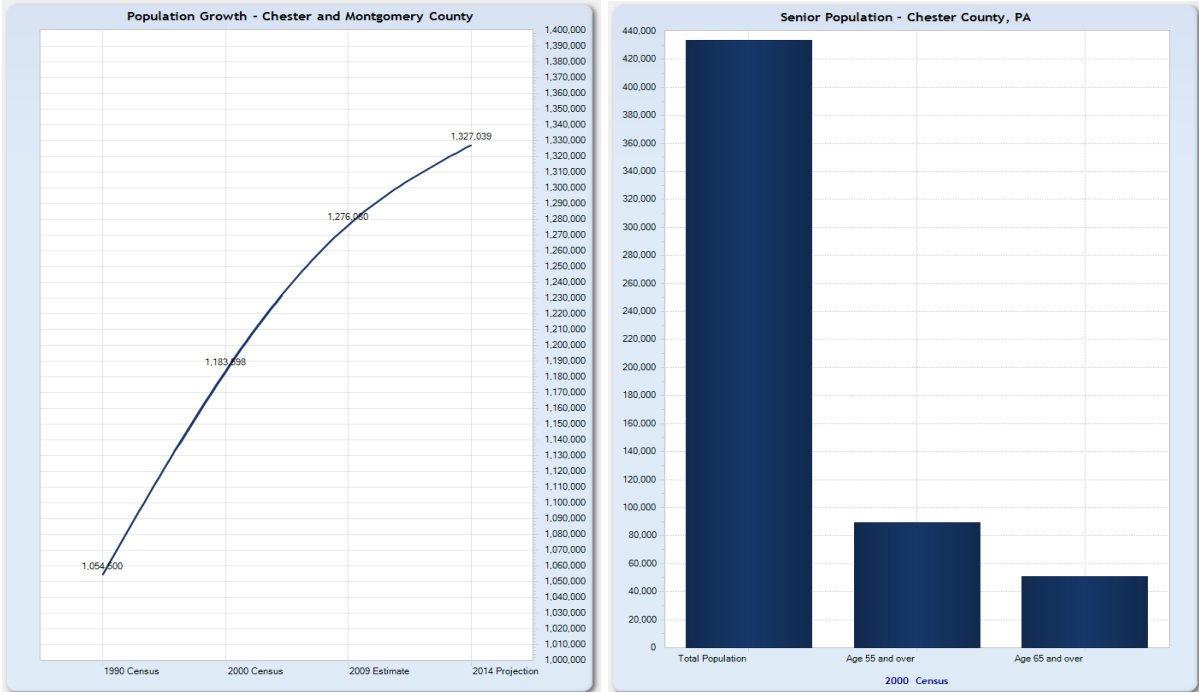
[2] "Senior Guide," Mainline Today Magazine, http://www.mainlinetoday.com/Main-Line-Today/September-2010/MLT-Senior-Guide_fall10.pdf, 10/1/2010.

Below are the predominant household segment types within 5, 10, and 25 miles of the Pennhurst site. These segements are useful for determining the demand for new development.

PRIZM
Household Segments

Segment	Pennhurst Site 5 mile ring	Pennhurst Site 10 mile ring	Pennhurst Site 25 mile ring
63 Family Thrifts	3	4	3
53 Mobility Blues	4	4	3
41 Sunset City Blues	10	7	3
35 Boomtown Singles	11	6	4
27 Middleburg Managers	9	6	6

2009 Households
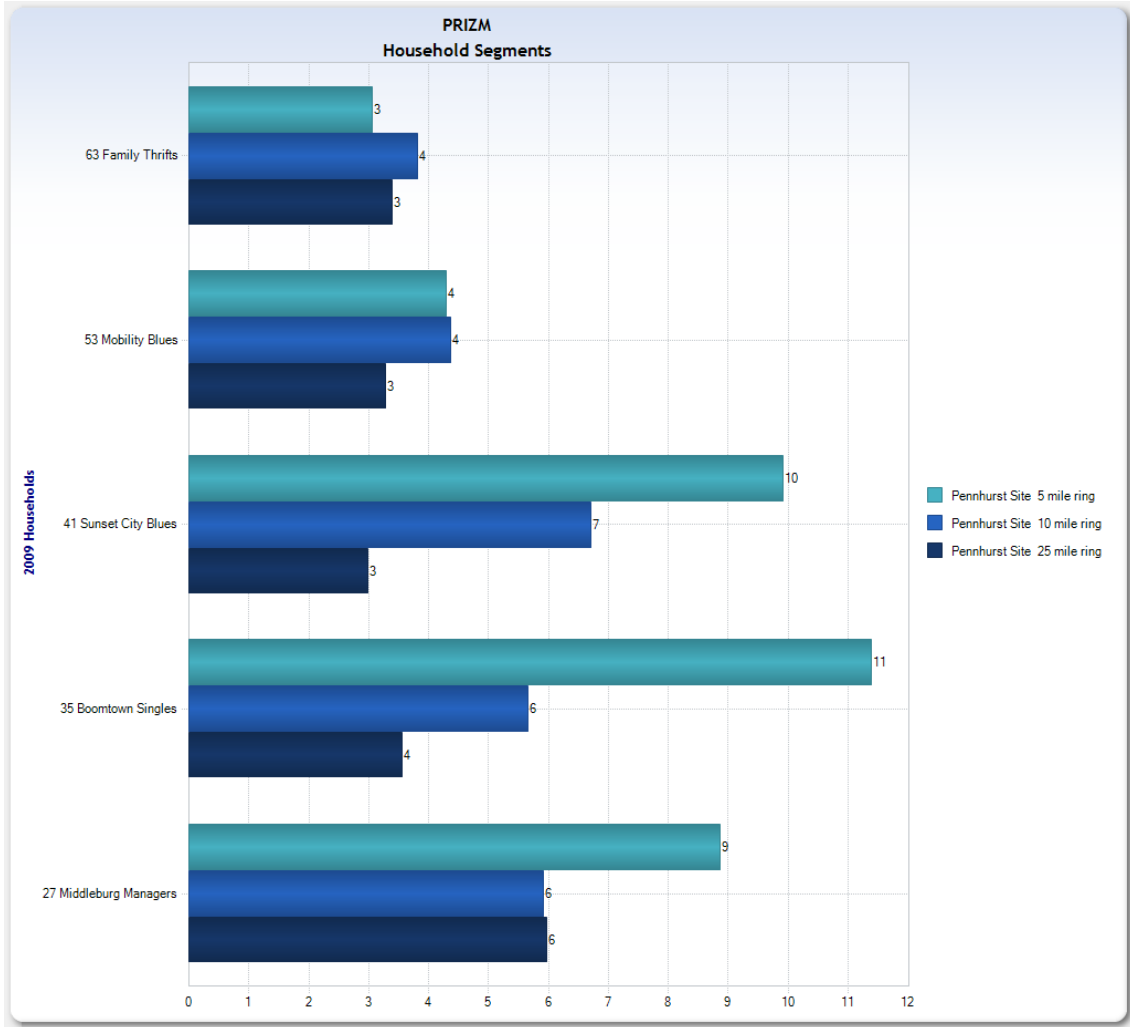
fashion-stylist.net

OUTLET RETAIL
Cristina Stiller

Admissionquest.com

BOARDING SCHOOL
Donald Johnson

Atlantarealestateforum.com

SINGLE-FAMILY HOUSING
Katie Coffield

Ascribehq.com

MULTI-FAMILY HOUSING
Chevone Hall

Findalco.com

SENIOR HOUSING
Ziqi Wu

♦ OUTLET RETAIL
By Cristina Stiller

EXECUTIVE SUMMARY

Outlet malls tend to average about 200,000 square feet per outlet, with some projects much larger than that.[3] The United States is facing an increase in the number of outlet malls across the country.[4] With the current financial crisis, there will be a likely rise in the number of people shopping at lower-cost retail sites. Despite their large average size, outlet malls are not dependent on extremely dense immediate populations. Outlet shoppers are willing to drive longer distances than regional or super-regional mall shoppers might

because they perceive that the savings they can attain at an outlet mall outweighs the cost of driving a longer distance. This allows outlet malls feasibly develop large-scale properties in rural areas, where construction and land costs are lower. Despite their broad market radius, however, outlet malls still need to be proximate to at least one major metro area and several submarket region mile regions.[5] This type of location would give the outlet mall maximum traffic from a diversified number of submarkets.

The Pennhurst Site in Spring City, PA fits these requirements perfectly. Spring City is a small borough with a population of 3,305, or roughly 835 families, according to the 2000 US census. Chester County features a population density of 4,321 people per square mile with 1,972 housing units per square mile. Between 1990 and 2000 the county had a -3.7% growth rate. The area's median household income is $40,601 and the median family income was $52,292. About 4.1% of families and 6.3% of individuals were living below the poverty line.[6] Outlets can be tremendous assets to rural or suburban-rural towns like Spring City. They will certainly attract traffic to the town, which would encourage other retail and residential development to the area.[7]

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3 http://insight.kellogg.northwestern.edu/index.php/Kellogg/article/the_outlet_mall
4 www.business.wsu.edu/SiteCollectionDocuments/.../FactoryOutlet.pdf
5 http://strategyteam.com/2010/06/psychology-of-outlet-malls/
6 Demographic information taken from http://en.wikipedia.org/wiki/Spring_City,_Pennsylvania and verified via the census website.
7 www.business.wsu.edu/SiteCollectionDocuments/.../FactoryOutlet.pdf

Despite this "perfect fit," however, the Pennhurst site faces one major outlet-specific competitor within just a 10-mile radius. Philadelphia Premium Outlets, a 425,000 square foot outlet with over 150 stores, has a location 35 miles Northwest of Philadelphia in Limerick, PA. It is about a 5 minute drive from the Pennhurst site.[8] Philadelphia Premium Outlets opened in 2007 and boasts 100% occupancy, with anchor tenants including Neiman Marcus Last Call Clearance Center and Tommy Hilfiger. The center's tenant mix is diversified, featuring a range of retailers, from designer factory outlet stores, will house retailers, and a number of food venues. Though not an outlet, King of Prussia is also a major competitor. Located in King of Prussia, Pennsylvania, the super-regional is one of the largest retail centers in the United States, netting nearly 3 million square feet. The site boasts over 400 stores and a 99% occupancy rate. About 20% of the mall's clientele is comprised of tourists that come from outside the Philadelphia submarket.[9]

In addition to these two major competitors, there are 18 outlets within the Philadelphia submarket. This competition, combined with the population growth rate, absorption rate, vacancy rate and other demographic factors suggests that the Pennhurst site is not the ideal market for an outlet mall. There is simply too much direct competition within a close range, the most obvious being the Philadelphia Premium Outlets just a 5-minute drive away from the Pennhurst site. Were those outlets not so comprehensive in their scope of retailers, Pennhurst might be able to support either a low-end or high-end focused outlet. But the Philadelphia Premium Outlets span too large a range of retailers to allow for either of those options. Despite this, however, Chester County does have a shortage of local retail centers. So though the site is not ideal for a large-radius mall, like an outlet or a regional/super-regional center, retail on the whole should not be ruled out.

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8 http://www.visitphilly.com/shopping/philadelphia/philadelphia-premium-outlets/
9 http://www.visitphilly.com/shopping/philadelphia/king-of-prussia-mall/

POPULATION DEMOGRAPHICS

POPULATION GROWTH

Montgomery County is the third most populated county in Pennsylvania, and one of the state's fastest-growing markets. Though most of this growth is centered in the Eastern part of the county, because of its location, Pennhurst is situated in an ideal location for an outlet mall. Because of its location on the border of Montgomery and Chester counties, Pennhurst is prime to attract the growing market that Montgomery County boasts. However, it is far enough away from Philadelphia's pricier locations that the site could still support constructing a very large outlet mall without incurring the tremendous costs that it might otherwise face in a location closer to Philadelphia.

Both Chester and Montgomery counties are experiencing population growth. However, it is clear that a majority of this population growth is occurring outside of immediate vicinity of the Pennhurst site.
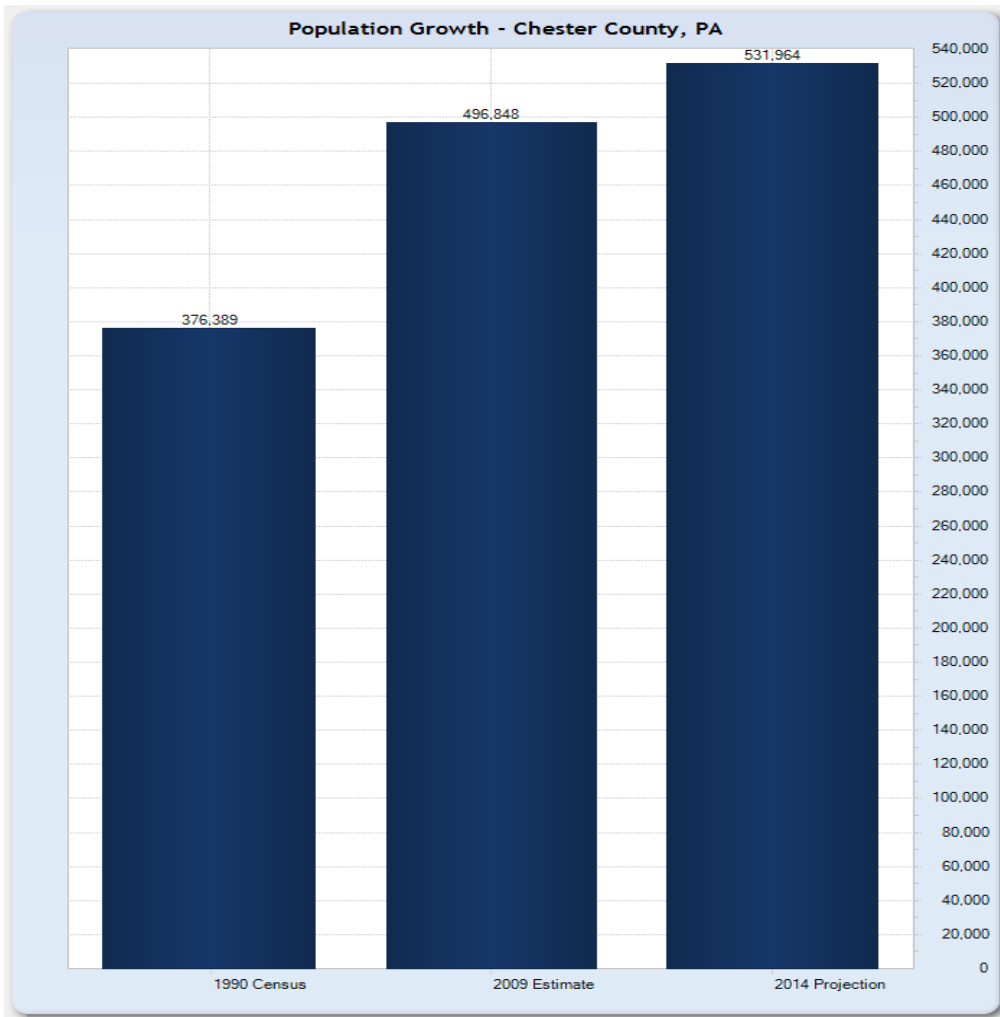
Source: Claritas

This population distribution does not necessarily pose a problem to developing Pennhurst as an outlet. Unlike traditional malls, outlet malls do not directly depend on a dense local population in order to succeed. A majority of outlet business occurs on holidays and weekends, whereas traditional indoor malls rely on steady weekday traffic in addition to weekend and holiday sales.

This trend suggests that outlets tend to attract a geographically broader clientele who are willing to drive longer distances for retail savings.

Spring City's strategic location 25 northwest of Philadelphia makes the site rural enough that constructing an outlet mall would be feasible. At the same time, it is proximate enough to Philadelphia to attract a significant population from both the city and its submarket.
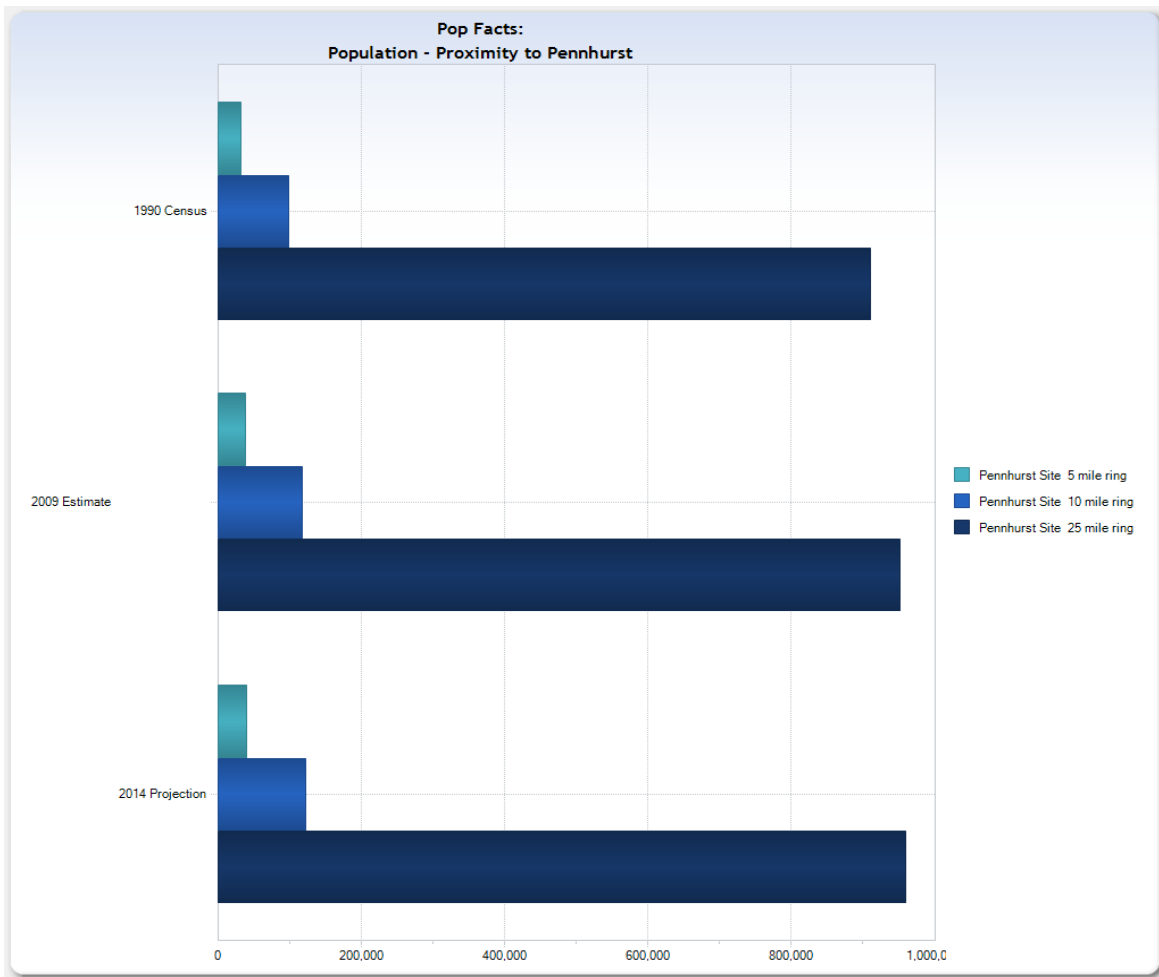
Source: Claritas

This being said, both Chester and Montgomery counties are experiencing a growth in population. An outlet mall at the Pennhurst site could significantly boost this population and economic growth, attracting other businesses to the area.

REGIONAL ECONOMIC TREND

Montgomery County is seeing tremendous economic growth in the recent years. It boasts a heavy pharmaceutical sector, as well as manufacturing and industrial business closer to the Pennhurst site. Though the average household income decreases slightly with proximity to Pennhurst, it only differs about $3,000 per household from a 10-mile and 25-mile radius from the site. This suggests that the immediate area surrounding Pennhurst is seeing comparable economic growth to the surrounding region.

Source: Claritas

Average Household Income - Chester County, PA

Legend:
- 2000 Census
- 2009 Estimate
- 2014 Projection

Data labels: 85,047 · 108,038 · 120,864
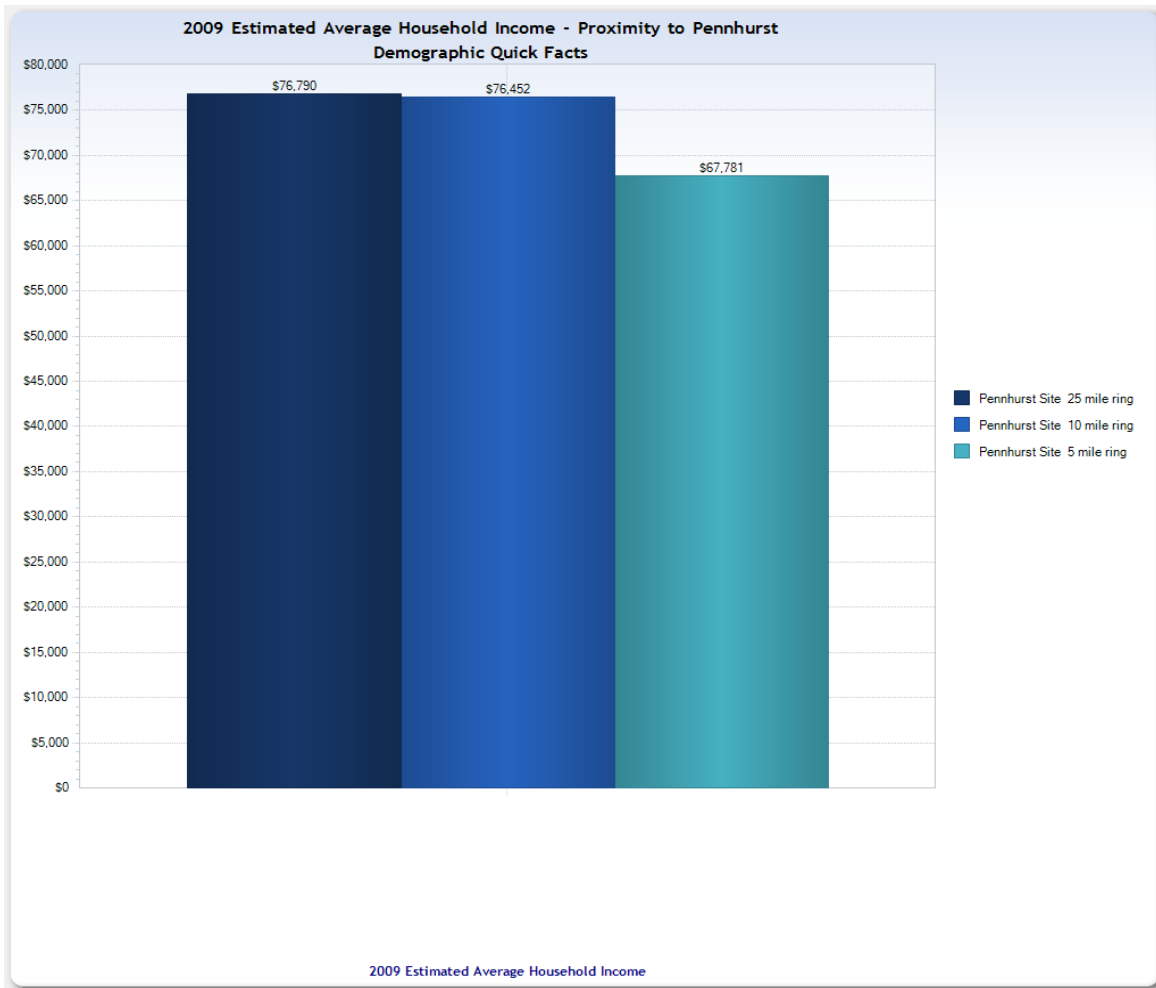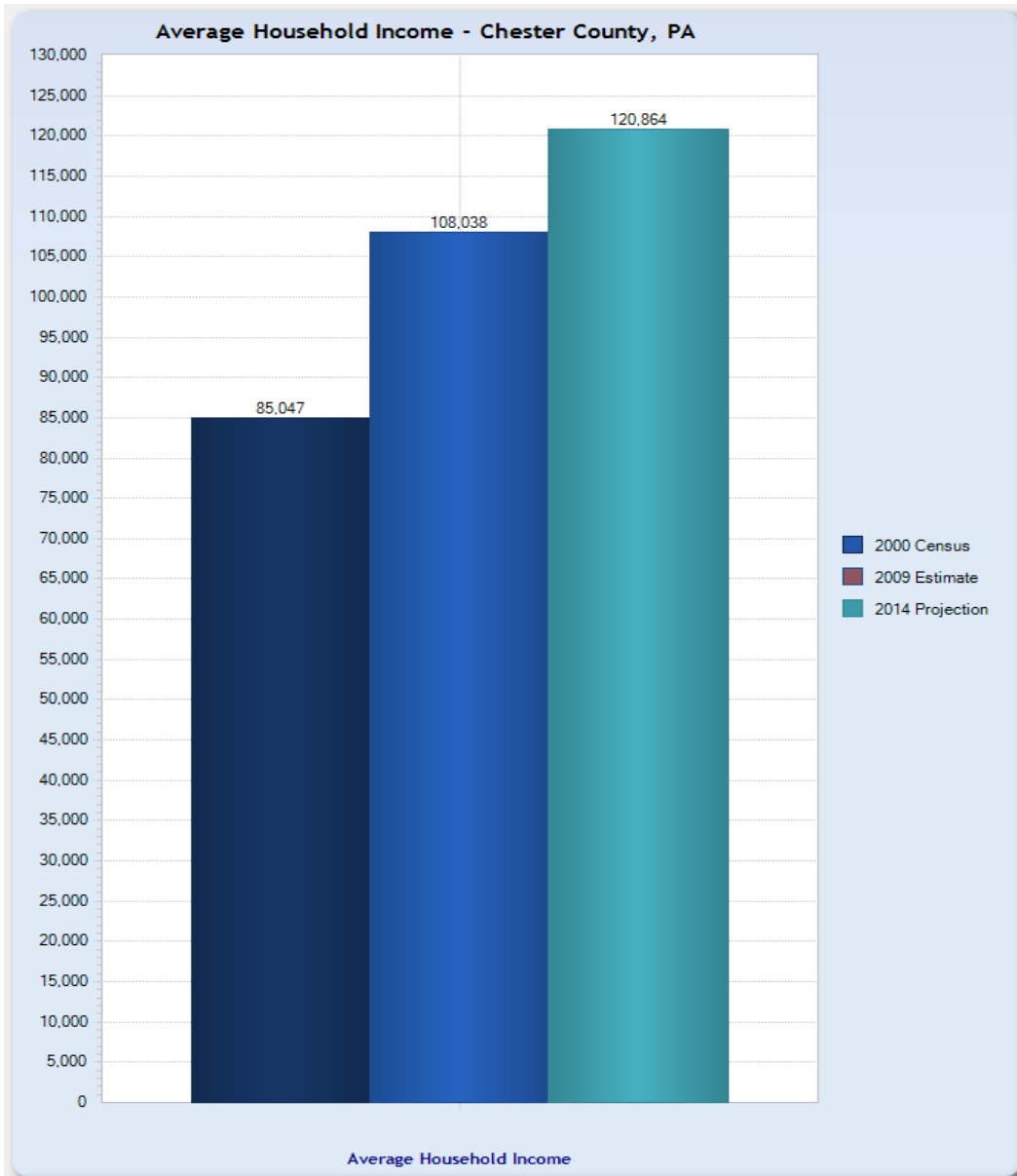
Source: Claritas

The income-level bracket for outlet shoppers tends to attract buyers in a middle-income range, or those who prefer to shop brand names but might not necessarily be able to afford or be willing to spend brand-name prices.
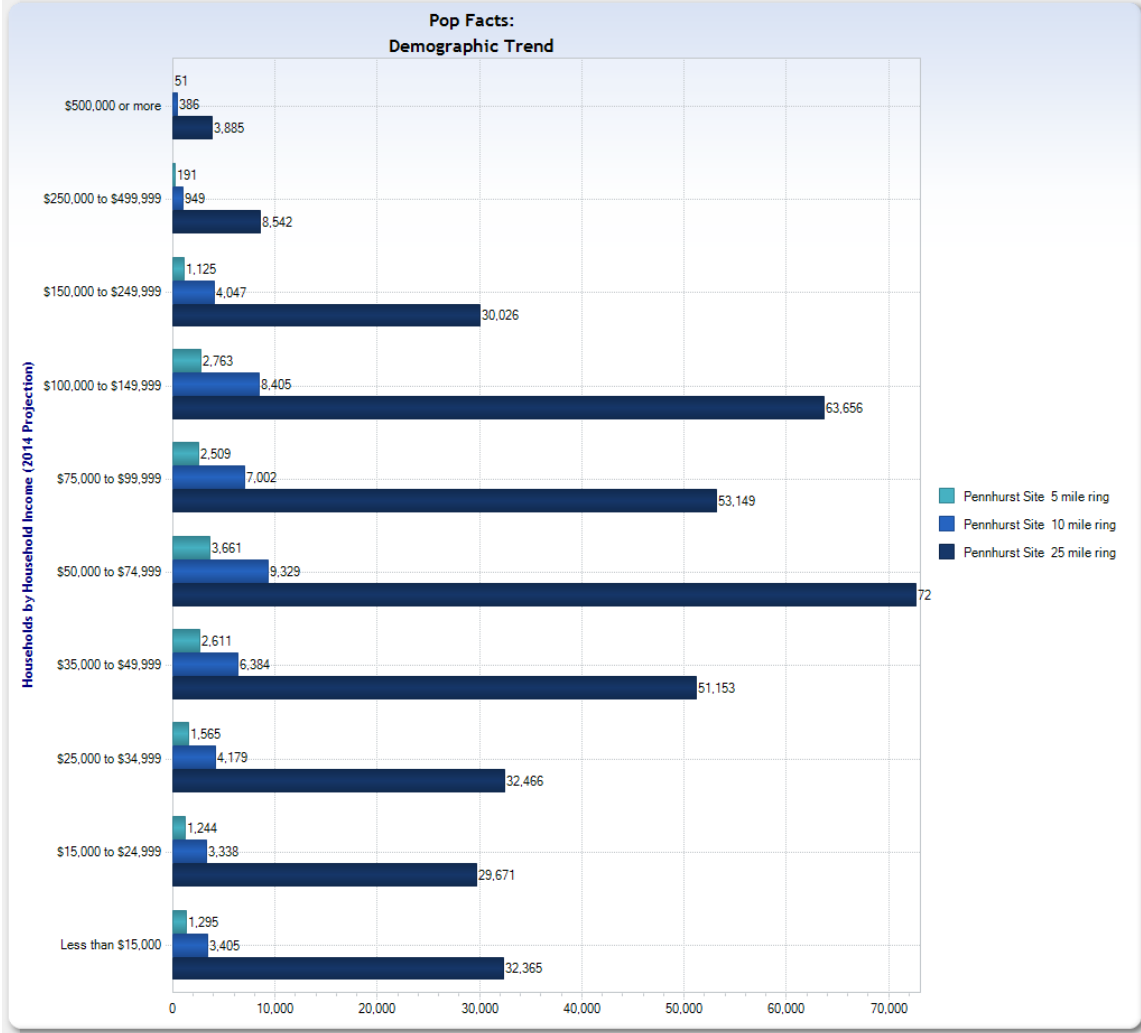
Source: Claritas

Chester County and Montgomery as well as the Philadelphia submarket does have a substantial population within this bracket. The median household income in these markets is both significant enough to sustain a brand-based outlet mall, but also diverse enough to attract a wide range of buyers to the center.

Outlet shoppers tend to fall in the 35-46 age group. They also tend to be heavily female, as are traditional mall shoppers, and tend to be repeat outlet shoppers.[10] Chester County and Montgomery as well as the Philadelphia submarket does have a substantial population within this bracket.

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10   EDA University Center Washington University. "Exploring the Opportunity of Starting an Outlet Mall."
*www.business.wsu.edu/SiteCollectionDocuments/.../Factory**Outlet**.pdf*

Chester County, PA

Households by Age of Householder

Legend: 2000 Census, 2014 Projection

Source: Claritas

Chester County and Montgomery as well as the Philadelphia submarket have a substantial population within this bracket. The median household income in these markets is both significant enough to sustain a brand-based outlet mall, but also diverse enough to attract a wide range of buyers to the center.

Outlet shoppers tend to fall in the 35-46 age group. They also tend to be heavily female, as are traditional mall shoppers, and tend to be repeat outlet shoppers.[11] Chester County and Montgomery as well as the Philadelphia submarket have a substantial population within this bracket.

OUTLET ECONOMIC TREND

According to the Wall Street Journal, the 2010 market has seen the decline of traditional mall construction "due to market saturation, scare capital, weak housing growth and curtailed customer spending. Outlets are prime to fit this gap and appeal to owners, tenants, and buyers.

	Meals and Snacks	Alcoholic Drinks
2009 Demand (Consumer Expenditures)	917,653,422	130,704,445
2009 Supply (Retail Sales)	818,620,281	100,263,106
Opportunity Gap/Surplus	99,033,141	30,441,339
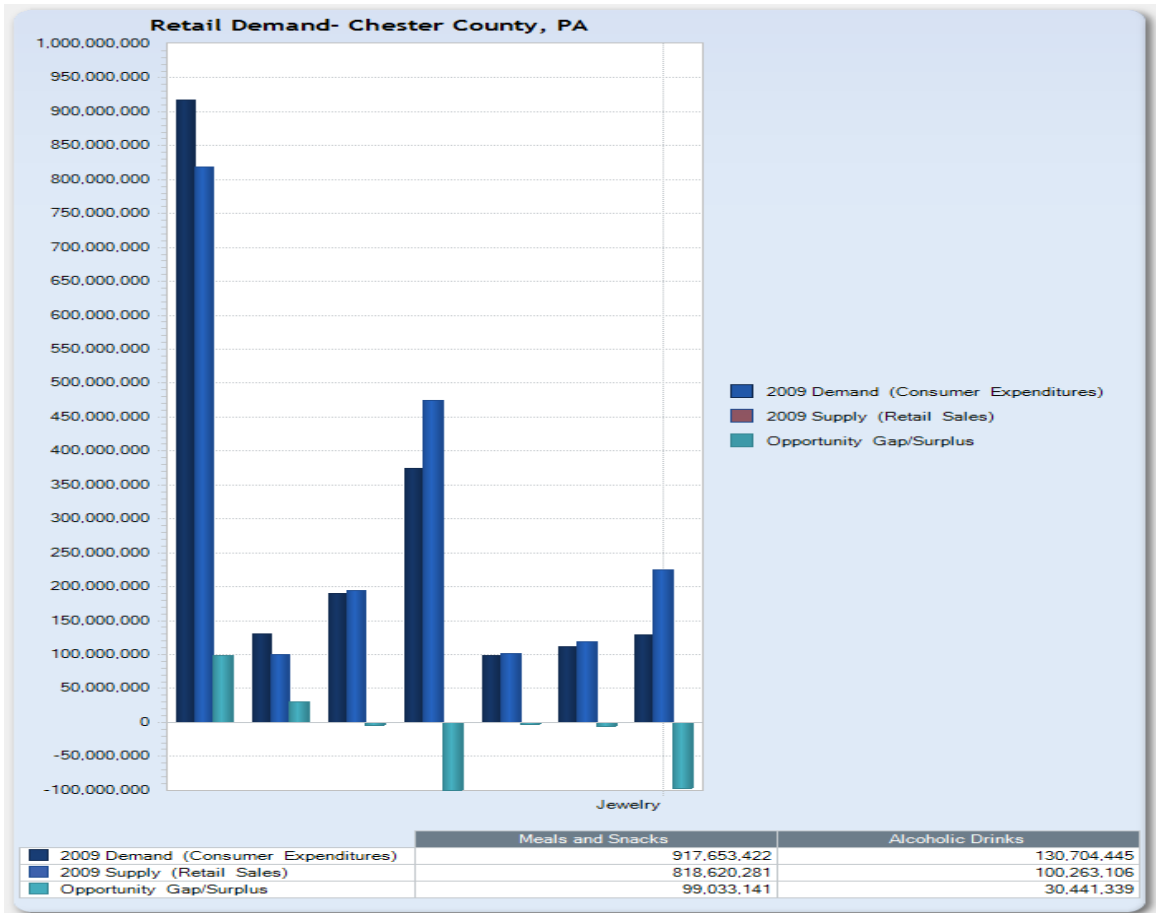
Source: Claritas

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11 EDA University Center Washington University. "Exploring the Opportunity of Starting an Outlet Mall."
www.business.wsu.edu/SiteCollectionDocuments/.../FactoryOutlet.pdf

Chester County and the immediate region around the Pennhurst site have an especially high demand for certain sectors of major retail, such as jewelry for example. However, retail traditional to outlet malls, such as men's and women's apparel, shoes, and restaurants are all over-saturated in the Pennhurst market.
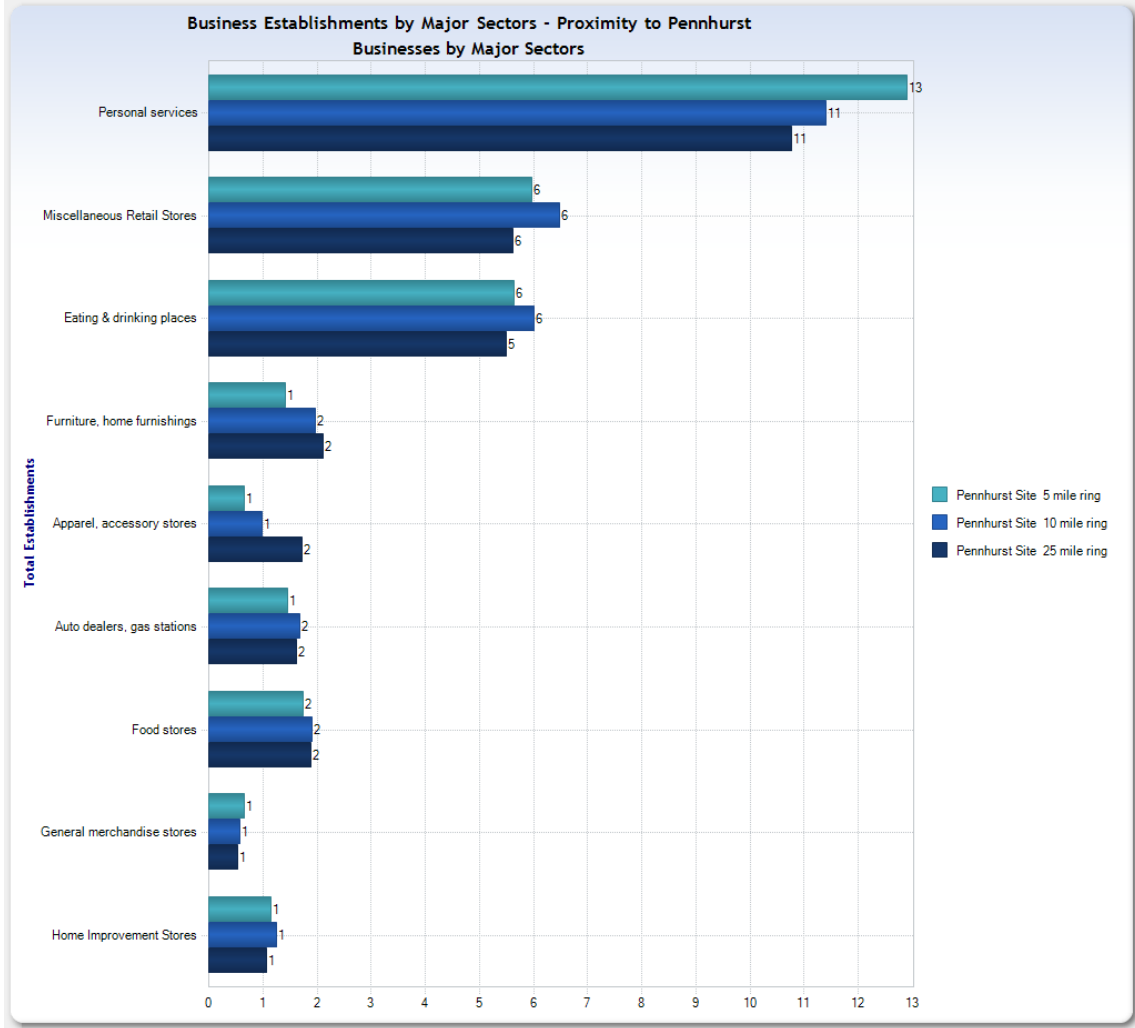
Source: Claritas

This over-saturation in outlet-specific tenant types is likely due to the proximity of other major outlet and super-regional malls, which have attracted a large portion of the major tenants that are traditionally found in outlet malls. Because of these, there is little market for an outlet mall in the Pennhurst site.

BUILDING INFO

For owners, a major appeal of outlets is that they tend to provide "larger rent increases, lower operating costs and stronger leasing activity than traditional enclosed malls."[12] Because outlet malls are traditionally open-air shopping centers, they are often less expensive to build and maintain than traditional closed malls. In addition, because outlets are often more rurally located the cost of land is also less expensive than land in densely populated regions.

The Pennhurst site was originally purchased for $2.0 million dollars in on January 7, 2010. Though this price was unusually low in comparison to the regional average of $316,598.00 per acre[13] for an equivalent sized parcel, this figure nonetheless demonstrates that the Pennhurst site benefits from the low cost of land associated from more rural markets while still being able to draw from the more densely populated Philadelphia submarket.

This being said, because the Pennhurst site contains a number of preexisting buildings, owners would have to incur demolition costs in addition to construction and development costs. This would greatly increase the cost of building an outlet, suggesting that Pennhurst may not be the ideal site for outlet construction.

DEMAND

According to the Wall Street Journal, overbuilding is a serious threat to the outlet market; scarcity is a major factor that drives not only the long distances people are willing to travel for outlet shopping, but also the components that make building such a massive structure feasible.

Between 1990-2000, the average outlet size has been growing. This suggests that saturating an outlet market has shifted from increasing the number of outlets to increasing the size, and therefore the number of tenants, that outlet malls provide.

12Hudson, Kris. "Builders Mark Time on Outlet Centers."
http://online.wsj.com/article/SB10001424052748703678404575636601600551926.html
13   Landandfarm.com"Average Cost Per Acre in Pennsylvania" *www.landandfarm.com/search/PA/Chester-County-land-for-sale/*

Average Outlet Center GLA 1990-2000

Year	Value
1990	123,710
	127,377
1992	128,041
	135,553
1994	142,922
	156,511
1996	165,506
	177,564
1998	190,917
	197,932
2000	207,469
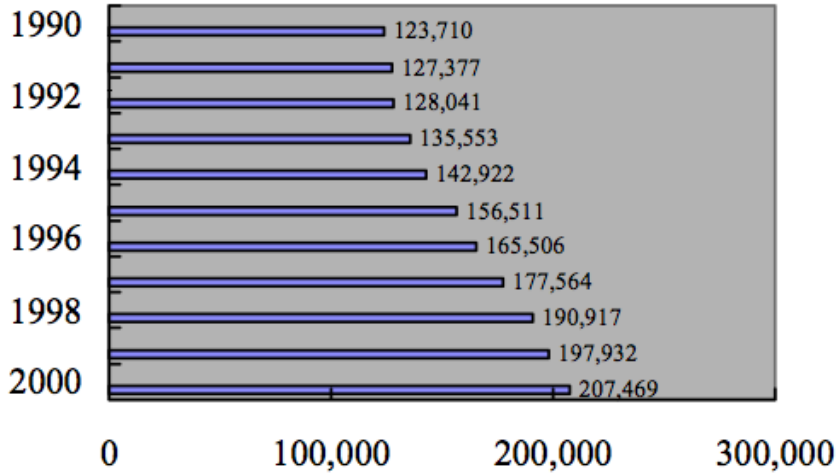
●   Source: VRN, Outlet Industry Data

As opposed to the gradual growth of outlet size according to the most recent data, growth in the number of outlets in the United States is much spikier.

The following chart shows that outlet construction trend in waves. Grand Openings will spike within a few years. Following this spike, the market likely becomes over-saturated with outlet malls, leading to a relatively slow amount of production. This is likely what occurred in 2000.

**U.S. Outlet Center Grand Openings
1988-2000**

Year	Value
1988	36
	43
	40
1991	25
	26
	32
1994	27
	22
	13
1997	7
	7
	5
2000	5
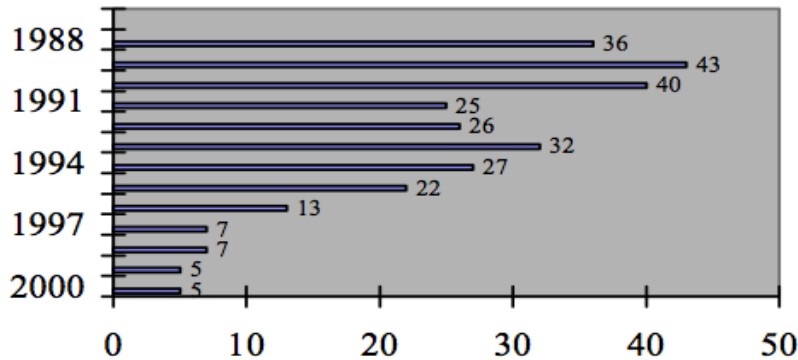
Source: VRN, Outlet Industry Data

Despite their tendency to be located in more rural areas than traditional indoor shopping malls, outlet malls nonetheless still need to be extremely accessible in order to attract their commuting and tourist population-base. Pennhurst's proximity to the US 422 would be a major attraction to outlet development. Its reasonable proximity to PA 76 would also be a significant draw.

Traffic Counts 2005						
Highway	Cross Rd.	Direction	Traffic Count	Date		Source
US Hwy 422	Airport Rd	0.41 SE	52,000	2005	0.24	AADT
United States Highway 422	Airport Rd	0.46 SE	52,000	2005	0.37	AADT
Sanatoga Rd	Lozark Rd	0.01 SE	1,800	2005	0.47	AADT
Airport Rd	Peters Ln	0.04 NE	1,900	2005	0.58	AADT
Limerick Center Rd	Airport Rd	0.19 E	4,600	2005	0.59	AADT
Commerce Ct	Airport Rd	0.03 NW	1,900	2005	0.63	AADT
Limerick Center Rd	Sanatoga Rd	0.20 SW	4,600	2005	0.65	AADT
W Ridge Pike	Futura Dr	0.06 W	15,000	2005	0.74	AADT
Evergreen Rd	Rt422 Eb	0.02 NE	8,600	2005	0.74	AADT
United States Highway 422	Airport Rd	0.16 NW	52,000	2005	0.75	AADT

Source: CoStar

This being said, though Pennhurst is close to these major throughways, it is not accessible by a direct highway exit. Were the market for an outlet at Pennhurst extremely receptive, this might not pose an immediate threat. But compared to the outlet supply in the immediate 10-mile radius surrounding the Pennhurst site, Pennhurst's limited accessibility is an increased burden on the Pennhurst site's viability as an outlet mall.

SUPPLY

In the event of an economic downturn, like the one we currently have faced between 2008-2010, the outlet malls are also more likely to open in larger numbers. This is in part because, as open-air centers, outlet malls are generally less expensive to build than traditional closed shopping malls. Also, outlet malls tend to attract a clientele that is looking to purchase a brand name without the brand price. In the event of an economic downturn, it is likely that the population that could before afford brand prices is no longer able to and therefore turns to outlet malls to maintain a brand lifestyle at a more affordable price.

Within a 10-mile radius of Pennhurst, there is only one outlet mall: Philadelphia Premium Outlets. The Philadelphia Premium Outlets are located in Limerick, PA, approximately a 15-minute drive time away from the Pennhurst site. Were Pennhurst a traditional mall or other retail facility, the Philadelphia Premium Outlets would not pose a tremendous competition to the site. However, because outlets necessitate such a broad population reach in order to attain the number of shoppers required to operate, in the scope of outlet malls the location of Philadelphia Premium Outlets is very proximate to the Pennhurst site.

Outlet Malls Within a 10-Mile Radius of Pennhurst Site
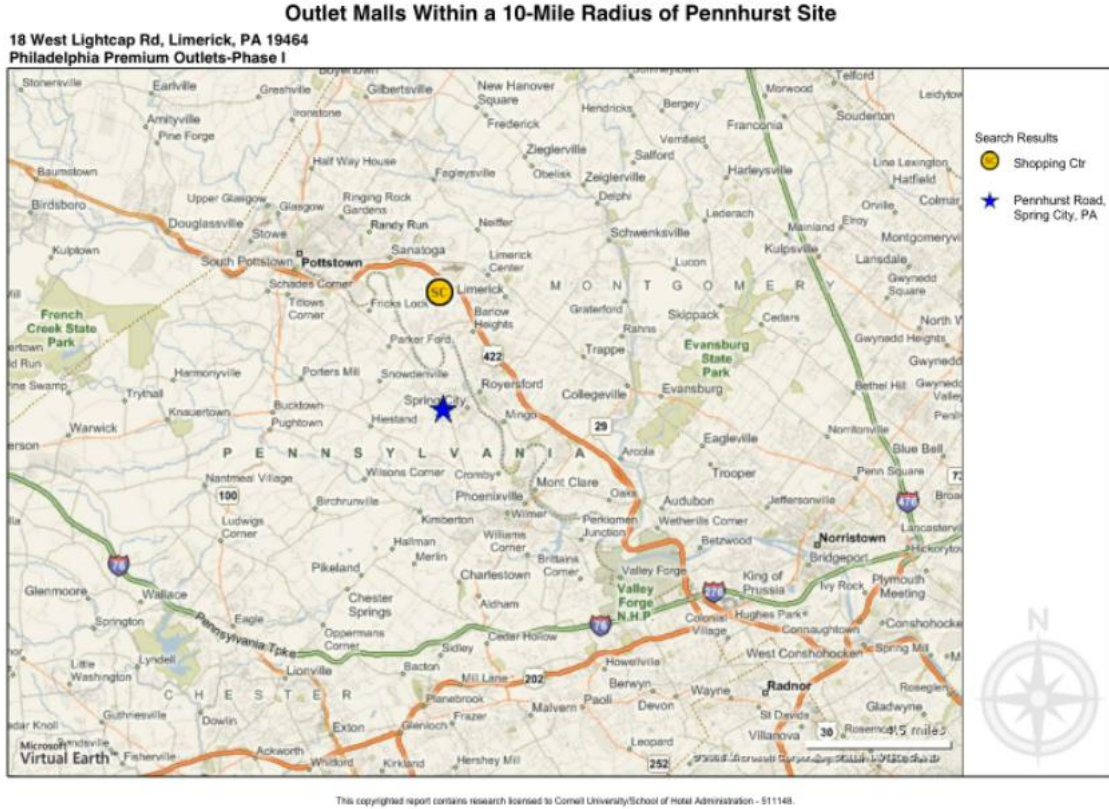
Source: CoStar

The Pennhurst market has a saturated supply of outlet malls. There is one outlet mall, Philadelphia Premium Outlets, located within a 10-Mile Radius of the Pennhurst Site. The Philadelphia Premium Outlets enjoys 100% occupancy and a direct highway exit from US 422, one of Pennsylvania's major east-west throughways.

Philadelphia Premium Outlets Avail. SF

Available SF

18 West Lightcap Rd, Limerick, PA 19464
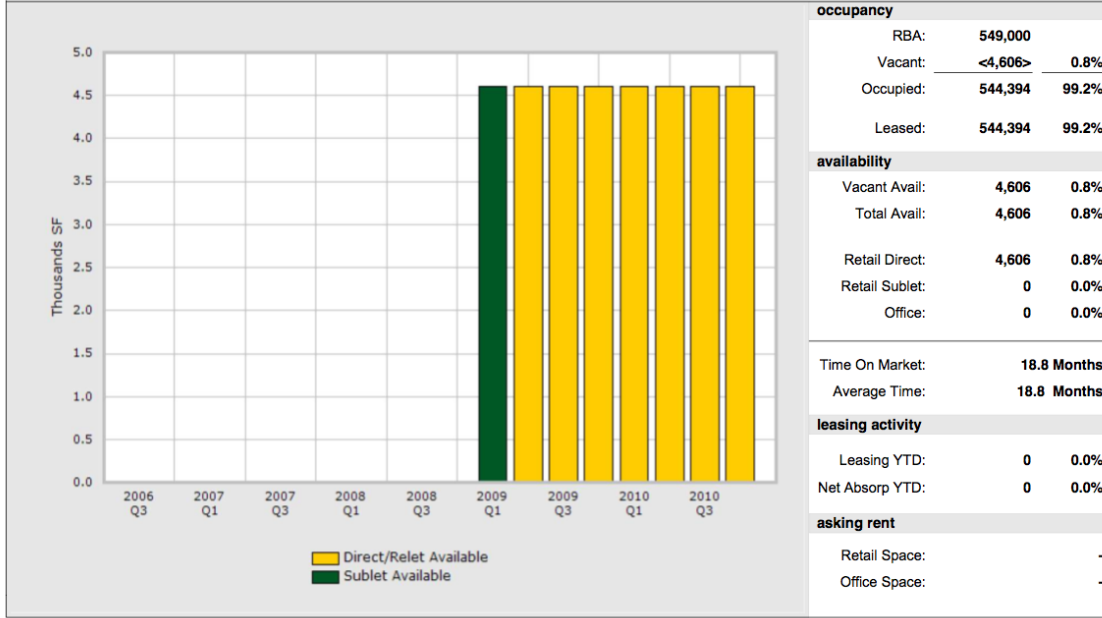
Source: Claritas

Philadelphia Premium Outlets Vacancy

Percent Leased And Sales History

18 West Lightcap Rd, Limerick, PA 19464

Source: Claritas

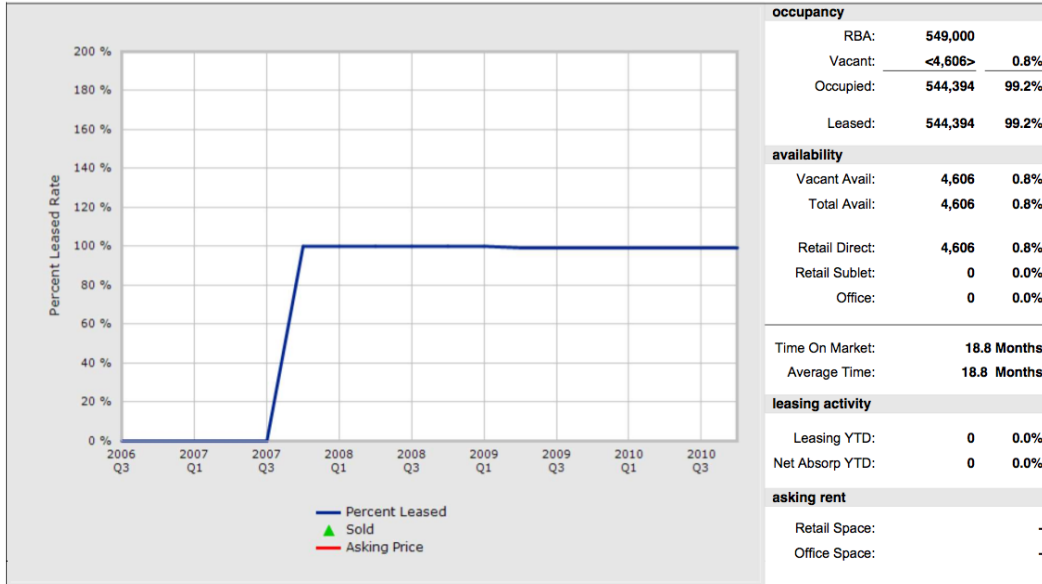| Annual Consumer Spending	2009			2014		
Radius	3 Mile	5 Mile	10 Mile	3 Mile	5 Mile	10 Mile
Total Specified Consumer Spending	47,210	44,428	49,775	45,511	43,966	49,172
Apparel:						
Total Apparel	1,633	1,569	1,751	1,574	1,553	1,730
Women's Apparel	669	643	721	645	636	712
Men's Apparel	395	377	423	381	373	418
Girl's Apparel	153	144	161	147	143	159
Boy's Apparel	119	111	124	114	110	122
Infant Apparel	112	107	117	108	106	115
Footwear (excl. Infants)	251	240	266	242	238	263
Other Apparel Prod/Services	185	187	205	179	185	203
Entertainment:						
Total Entertainment	4,282	4,050	4,573	4,128	4,008	4,518
Sports and Recreation	195	180	204	188	179	202
TV, Radio, and Sound Equipment	1,470	1,402	1,557	1,417	1,388	1,538
Reading Materials	200	194	217	193	192	215
Travel	2,358	2,218	2,533	2,273	2,195	2,502
Photographic Equipment	60	55	63	57	55	62
Food at Home:						
Total Food At Home	3,746	3,618	4,000	3,611	3,581	3,951
Cereal Products	232	225	247	224	222	244
Bread & Bakery Products	501	482	534	483	477	527
Seafood	194	189	210	187	187	207
Meat/Poultry/Fish/Eggs	1,274	1,229	1,356	1,228	1,216	1,339
Dairy Products	612	589	651	590	583	643
Fruits and Vegetables	933	905	1,002	900	896	990
Food Away from Home:						
Total Food Away From Home	3,851	3,666	4,079	3,712	3,628	4,030
Breakfast and Brunch	356	349	384	343	345	379
Dinner	1,800	1,709	1,905	1,735	1,691	1,882
Lunch	1,281	1,207	1,342	1,235	1,195	1,325
Snacks and Non Alcoholic Bev	287	276	304	277	274	301
Catered Affairs	127	125	144	122	123	142
Alcoholic Beverages:						
Total Alcoholic Beverages	707	684	760	681	677	751

The demographic information for the immediate site surrounding the Philadelphia Premium Outlets is similar to that of the Pennhurst Site. This suggests that both outlets would capture a similar market population.

Household Income for 10 Mile Radius
18 West Lightcap Rd, Limerick, PA 19464

Population	3 Mile	5 Mile	10 Mile
2009 Total Population:	28,219	91,469	260,588
Pop Growth 2009-2014:	6.70%	5.30%	5.30%
Per Capita Income:	$32,970	$32,177	$35,067
Average Age:	37.00	37.70	37.60
Households			
2009 Total Households:	10,507	35,422	96,861
HH Growth 2009-2014:	7.30%	5.60%	5.80%
Median Household Inc:	$77,707	$71,346	$77,508
Avg Household Size:	2.63	2.54	2.59
Avg HH Vehicles:	1.80	1.70	1.80
Avg Travel Time - Wrk:	31 min	30 min	30 min
Housing			
Median Housing Value:	$247,573	$232,955	$255,590
Median Year Built:	1991	1972	1975

Source: Claritas

Further, within a 50-mile radius (approx. 1.5 hour drive time) of the Pennhurst site, there are 9 outlet malls in operation. Of these 9 malls, 66% are fully leased and the other 33% average vacancies at a little over 60%

	Center	City	Center Type	Property Size	Space Avail	Rent/SF/Yr
1	Reading Station Outlet Center	Reading	Outlet Center	158,000 SF	0 SF	Negotiable
2	The Big Mill Factory Outlets	Reading	Outlet Center	120,000 SF	0 SF	Negotiable
3	Liberty Village Premium Outlets	Flemington	Outlet Center	173,067 SF	0 SF	Negotiable
4	Shops At Perryville	Perryville	Outlet Center	145,004 SF	56,650 SF	$17.52
5	Vf Outlet Village	Reading	Outlet Center	500,000 SF	0 SF	Negotiable
6	The Shoppes at Hamilton	Hamilton	Outlet Center	150,358 SF	30,565 SF	$26.04
7	Tanger Outlet Center	Lancaster	Outlet Center	255,152 SF	0 SF	Negotiable
8	Philadelphia Premium	Limerick	Outlet Center	549,000 SF	0 SF	Negotiable
9	Penn's Purchase Factory Outlet	Lahaska	Outlet Center	106,991 SF	26,951 SF	$15.00

Source: CoStar

These low vacancy rates suggest that these outlet malls have captured a large percentage of the outlet mall tenant market. The fact that there are three outlets have 60% average occupancy rates suggests that, as it stands, the outlet market in just a 50-mile radius around Pennhurst is already struggling to fill its existing supply of outlet malls.

One explanation for this would be that these outlet malls tend to be older facilities. In some cases, a new outlet mall would provide sufficient competition to attract tenants away from older buildings and into newer buildings. The case of Philadelphia Premium Outlets, which boasted almost 100% occupancy within its third quarter of opening, is a testament to this case. However, because the Philadelphia Premium Outlets have already captured the new outlet market, it is unlikely that there is an additional market of tenants who would be willing to move to the Pennhurst site.

In the Philadelphia submarket, one of the primary draw markets for the Pennhurst site, the supply of outlet malls is even greater than that of the 50-mile range around Spring City. Though not limited to Pennsylvania state, the widespread geography of the outlet malls that would draw shoppers from the Philadelphia submarket suggests that the Pennhurst site would have to be remote enough from any other outlet to warrant the construction of a new outlet facility which could provide alternative tenants or a unique shopping perspective.

Source: CoStar

Pennhurst's proximity to Philadelphia Premium Outlets, listed as one of the major outlet draws for both the Philadelphia submarket and the 5- and 50-mile range from the Pennhurst site all suggest that the market for outlets in the Pennhurst region has already been saturated, despite the macro market demand for outlets in the United States today.

Though outlet malls have many benefits for both developers and tenants that traditional malls do not provide, there is often still a tremendous amount of overlap between the tenants of these facilities. Regional and super-regional malls pose the most direct competition to outlet malls. In the Philadelphia submarket, there are over 16 super-regional malls that attract a wider population and market than traditional regional- or local malls would.

Malls Map

Source: CoStar

Though this market overlap does not introduce direct competition with the outlet mall market, if there is already an over-saturation of outlet malls in a region, the presence of successful regional and super-regional malls might further exacerbate the overlap.

If large enough, some of these malls have the potential to draw from the same market population as outlet malls in the region. Perhaps the largest example of this mall would be the King of Prussia Mall, in King of Prussia, Pennsylvania.

King of Prussia Demographics

Population for 5 Mile Radius
160A N Gulph Rd, King Of Prussia, PA 19406

Population	1 Mile	3 Mile	5 Mile
2009 Total Population:	4,321	54,304	169,663
Pop Growth 2009-2014:	(0.50%)	0.40%	0.90%
Per Capita Income:	$44,332	$46,428	$40,963
Average Age:	41.50	39.90	39.00
Households			
2009 Total Households:	1,870	22,678	66,659
HH Growth 2009-2014:	0.00%	0.90%	1.40%
Median Household Inc:	$82,853	$82,941	$77,124
Avg Household Size:	2.31	2.30	2.39
Avg HH Vehicles:	1.70	1.70	1.60
Avg Travel Time - Wrk:	24 min	26 min	26 min
Housing			
Median Housing Value:	$284,486	$298,120	$286,286
Median Year Built:	1966	1964	1963

Source: Claritas

At nearly 3 million square feet, the super-regional mall is much larger than traditional indoor malls. About 20% of the mall's clientele is comprised of tourists that come from outside the Philadelphia submarket.[14] Thus, though King of Prussia functions as a traditional indoor mall, because of its enormous size and wide range of tenants, it attracts tourist and long-distance populations, a direct overlap into the outlet market.

14http://www.visitphilly.com/shopping/philadelphia/king-of-prussia-mall/

King of Prussia Consumer Spending

Consumer Spending Totals for 5 Mile Radius

160A N Gulph Rd, King Of Prussia, PA 19406

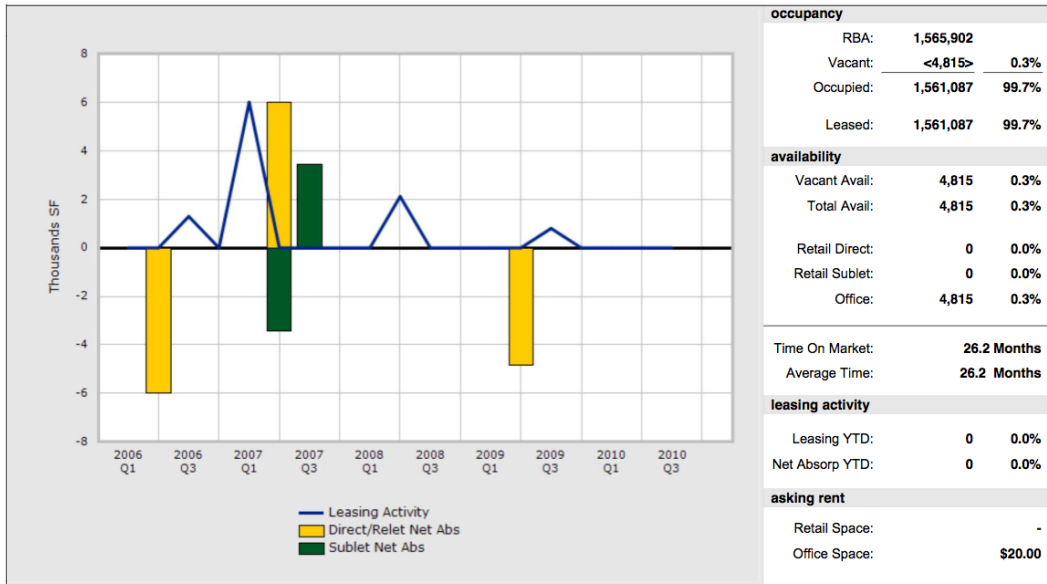| Population	1 Mile	3 Mile	5 Mile
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Pop Growth 2009-2014:	(0.50%)	0.40%	0.90%
Per Capita Income:	$44,332	$46,428	$40,963
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Households			
2009 Total Households:	1,870	22,678	66,659
HH Growth 2009-2014:	0.00%	0.90%	1.40%
Median Household Inc:	$82,853	$82,941	$77,124
Avg Household Size:	2.31	2.30	2.39
Avg HH Vehicles:	1.70	1.70	1.60
Avg Travel Time - Wrk:	24 min	26 min	26 min
Housing			
Median Housing Value:	$284,486	$298,120	$286,286
Median Year Built:	1966	1964	1963

Source: Claritas

King of Prussia Absorption

Absorption & Leasing Activity

160A N Gulph Rd, King Of Prussia, PA 19406

occupancy		
RBA:	1,565,902	
Vacant:	<4,815>	0.3%
Occupied:	1,561,087	99.7%
Leased:	1,561,087	99.7%
availability		
Vacant Avail:	4,815	0.3%
Total Avail:	4,815	0.3%
Retail Direct:	0	0.0%
Retail Sublet:	0	0.0%
Office:	4,815	0.3%
Time On Market:	26.2 Months	
Average Time:	26.2 Months	
leasing activity		
Leasing YTD:	0	0.0%
Net Absorp YTD:	0	0.0%
asking rent		
Retail Space:	-	
Office Space:	$20.00	

Source: Claritas

RECOMMENDATION

Though the Pennhurst site provides a strong location for an outlet center based on demographic and economic trends, other outlet sites have already taken advantage of this, saturating the outlet market to capacity for a 50-mile radius of Pennhurst. Therefore, the Pennhurst site should be considered a no-go for potential outlet development.

This does not, however, rule out other retail opportunities, such as supermarket-anchored open-air shopping centers, for example. But any sort of traditional mall retail, and especially outlet mall retail which would need to capture a large untapped population, is not recommended for the Pennhurst site.

♦ BOARDING SCHOOL

By Donald Johnson

EXECUTIVE SUMMARY

This market analysis will be used to determine the demand for the reuse of the Pennhurst campus as a boarding school. The target population for this analysis draws from a 20-mile radius and all of Chester and Montgomery Counties, although brief predictions are made at the national level. The information gathered focuses on households that can afford boarding school tuition in relation to the need for a better education. Data sources largely include private company school reviews, Pennsylvania's Department of Education, and Census data. The research is broken into market area, population growth, income projections and supply and demand.

The market for boarding schools generally lie in the need for better education, child stability for a unstable families, tradition, and various other reasons. Unfortunately all information is not readily available, although the market has been identified from educational quality, local incomes and their vicinity to the Pennhurst site.

The market for private education to include not just boarding schools, but other private institutions appears to be a small percentage of the local school system at approximately 20%. More specifically, boarding schools comprise of less than 1% of the total local school system. On average, the local market for boarding schools is at 19% of the average school's total enrollment of 298 students. The remainder is gained at the national and international level. While local population projections amongst student-aged children suggests to an oversaturated market with an additional school, there appears to be a market for better education. The local school system shows several underperforming districts in regards to SAT scores that could be marketed too. In addition, demand is shown to be high with the average acceptance rate of 50% at boarding schools. Since child populations are expected to slowly decline over the next 20 years, the demand must be predominately met by students within the current school system. This study has identified nearly 7,000 students that attend the bottom 10% of schools within the market area. Pennhurst will only have to market to under one percent to meet the average local student population of approximately 56 students. Helping fill the remainder of the student population could be located in the national and international markets. Over the next 20 years, regions in the South and West show large growth patterns at over 20% amongst school-aged children. In addition, states in these regions to include Hawaii, South Carolina, and Georgia are categorized in the bottom five states for SAT scores. While this market study is not a pure science, there appears to be a market for a boarding school on the Pennhurst site, if they can properly market their product and provide a top-quality education.

INTRODUCTION

While one could make an argument (as it is made later) that boarding schools and other private institutions provide a superior education to public schools, the fact remains that these schools hand pick their students where public schools lack the option. The acceptance rate among boarding schools in the Northeast ranges from 14% to 99%, although the average rate is 50%. Private schools on the other hand, have not provided similar information, although an assumption is being made that they may have similar attributes. This provides private school facilities with a competitive advantage over public institutions with regards to illustrating the potential success of their graduating students. For example, several private institutions around the country boast that their students have a 99% or higher college acceptance rate. The demand also appears to be fairly high from a business perspective, since half the students are not granted enrollment into the average boarding school. It would appear that private institutions hand pick their students based upon test scores or other characteristics that they find success in. Statistics have also shown that SAT scores among private education are much higher than public schools, although studies have shown a correlation between family income and SAT scores (Figure 1).

Another way to judge public schools is to identify Adequate Year Progress (AYP) or the student: teacher ratio. The Department of Education regulates AYP, but they lack the jurisdiction over private education. As a result, they will not be discussed, except to reveal that there appears to be a correlation between violations within the AYP standards and public schools with lower SAT scores. Student: teacher ratios on the other hand may also be used, although they do not necessarily mean students perform better, but they are an indicator. No government agencies were found to produce these ratios and private company results show drastic differences in their results. As a result, the student: teacher ratio will not be used, although broad calculations identified that on average private institutions or more specifically boarding schools had a lower student: teacher ratio.

Figure 1: Correlation between SAT Scores and Income
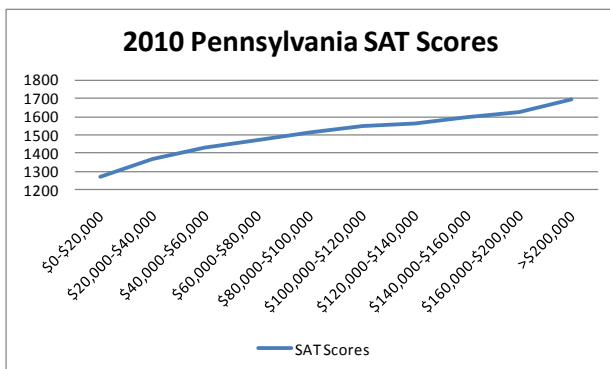

Source: *CollegeBoard*

The basis for the argument of education quality is found by comparing SAT scores among these institutions. Public schools SAT scores are readily available, while private institutions are not required to convey their results to the State Department of Education. The result has provided this study with all

public school SAT scores, no private school scores and some boarding school scores. Comparing boarding school and public school SAT scores shows a dramatic difference in educational understanding under SAT guidelines. The median average of Pennsylvania state public school SAT scores is 1441, Chester and Montgomery Counties average is 1569 and the national average is 1553. In contrast, Pennsylvania state boarding schools, (of those who provided them) have a median average SAT score of 1830. One could argue as CollegeBoard does, that family income is directly correlated to SAT scores as previously described. This could make the case for private institutions, since most families who send their children to private institutions pay tens of thousands of dollars in excess of property taxes for that education. SAT scores are further discussed below in market supply.

MARKET AREA

The difficulty in addressing the supply lies within the educational type and student origin. The three educational types include public schools, private schools and boarding schools, although home schools are another avenue, but not explored in this study. The three areas of student origin include the local, national and international level. The market area (Figure 2) is a 20-mile radius around the Pennhurst site and Chester and Montgomery Counties. While a radius may be more practical for the market area, some information obtained includes the two counties as a whole and they are being used for that reason. Each concentric circle represents a 5-mile radius. The local market for boarding schools within the market area attribute to a median rate of 21% of the local population as derived from statistics in Table 1. Identifying the national and international market is far too complex to be gained in this study, although population projections will allude to a national market and is supplied in the Target Population section below. Due to this complication, the local market is more specifically identified. An assumption is being made that if the standard of 19% of the local market can be attained as made by boarding schools (discussed later), the national and international market may also be available.

Figure 2: Market Area
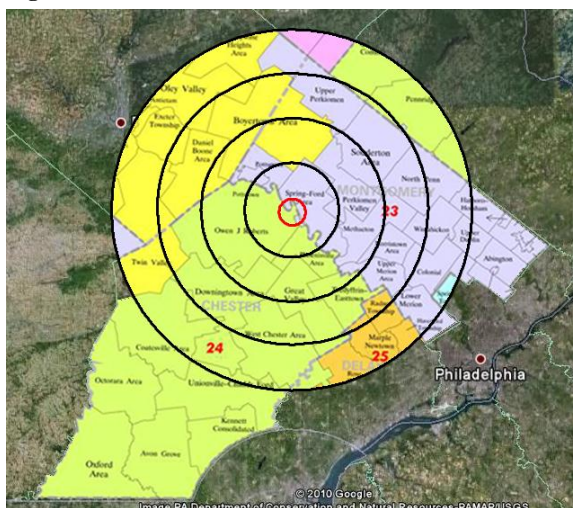
TARGET POPULATION/GROWTH

In 2009, there were 482,000 households within Montgomery and Chester Counties, of which one-third had children. Households are expected to grow by 4% in 2014, although child population projections within the Claritas' Census data is unknown. The Census has compiled regional population projections as shown in the Figure 3. It illustrates that populations between the ages of 5 and 17 within the Northeast have negative growth over the next 20 years, while populations in the South and West are expected to grow by over 20%. As a result, the majority of the target market may not be located in the vicinity of Pennhurst, but in areas of the South and West.

Figure 3: Regional Population Projections
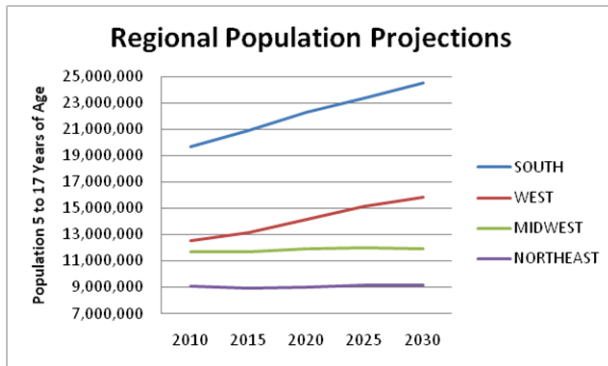
Source: U.S. Census Bureau, 2005

HOUSEHOLDS: NUMBERS AND INCOME

Disposable income (also known as Effective Buying Income or EBI) projections are used to help identify a broad availability of a households' buying power. This helps identify the ability to pay for private education. The disposable income projections for the Chester and Montgomery Counties are far better than the state and country as shown in Figure 4. Chester County happens to have the highest income among all counties in the state. The 2009 disposable income for the median family in Chester and Montgomery Counties was at $61,000 compared to Pennsylvania State and the US at approximately $40,000. These numbers illustrate that the median family in these two counties have 50% more usable income in comparison to the state and across the country. Claritas also projects that Chester and Montgomery Counties EBI is expected to grow 8% by 2014, above the state and national growth projections.

Figure 4: Effective Buying Income
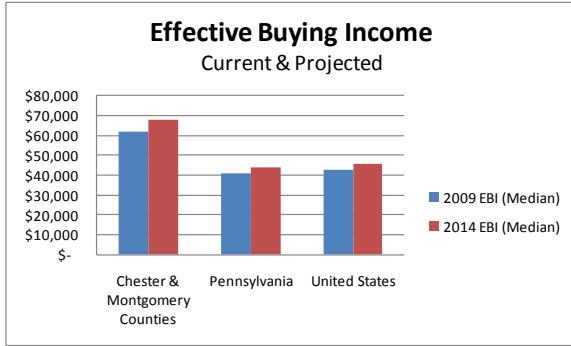
Source: Claritas, 2010

MARKET SUPPLY

The student supply among the three school types is quite diverse among the local market. Public schools represent over 80 percent of the market, with private schools at 19 percent and boarding schools at less than one percent as shown in Figure 5. The numbers for local boarding school students are illustrated as attending day school, rather than residing or boarding at the institution. The following starts by identifying local boarding schools, private schools, and finally public schools.

Figure 5: School Attendance by Type
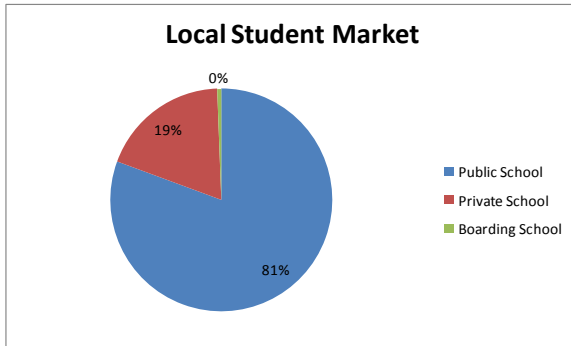
LOCAL BOARDING SCHOOLS

Boarding school supply was identified within a 20-mile and all of Chester and Montgomery Counties, although they were located within the 20-mile range. Within this area, six schools can be found as shown in Figure 5. Among the six schools, the local market comprises of 19% of their student enrollment, which could suggest that the local school system is of good quality, since the local market pool is lower than the average boarding school in the Northeast region at 25%.

Figure 5: Boarding School Location

Table 1 identifies the six boarding schools and their attributes. While the total student population in these local boarding schools has a total of 1787 students, only 339 are located within the local vicinity. Other boarding school statistics identify low acceptance rates, high boarding percentages, moderate international student enrollment, student: teacher ratio and tuition rates among other variables. These numbers also illustrate the standard that Pennhurst must meet as a boarding school to be competitive with the local market.

Table 1: Local Boarding School Attributes

County	School	Local Students	Students	School Type
Chester	CFS, The School at Church		9	183 Boarding
Chester	The Phelps School		21	140 Boarding
Chester	Westtown School		100	398 Boarding
Delaware	Valley Forge Military		3	260 Boarding
Montgomery	Hill School		101	503 Boarding
Montgomery	The Perkiomen School		106	303 Boarding
Total			339	1787

Boarding School	No. of students	Local Students	Acceptance rate	% Boarding	% International	% Students of color	Gender	Teacher: Student ratio
CFS, The School at Church	183	9	37%	95%	19%	51%	All-boys	1:05
The Phelps School	140	21	-	85%	20%	10%	All-boys	1:05
Westtown School	398	100	59%	75%	13%	19%	Co-ed	1:07
Valley Forge Military	260	3	80%	99%	15%	32%	All-boys	1:12
Hill School	503	101	38%	80%	12%	32%	Co-ed	1:07
The Perkiomen School	303	106	48%	65%	40%	25%	Co-ed	1:07
Average	298	56	52%	83%	20%	28%		1:07

Boarding School	Tuition (boarding)	Tuition (day)	Year founded	Campus size (acres)	Grade Level	Religion	Learning Differences	Military
CFS, The School at Church	$ 26,250	$ 16,250	1918	250	7-12	Episcopal	Yes	No
The Phelps School	$ 36,200	$ 21,250	1946	75	7-12, PG		Yes	No
Westtown School	$ 41,850	$ 25,300	1799	640	9-12	Society of Friends	No	No
Valley Forge Military	$ 37,055	$ 21,400	1928	100	7-12, PG	Non-denom / Christian	Yes	Yes
Hill School	$ 45,500	$ 31,500	1851	300	9-12, PG		No	No
The Perkiomen School	$ 42,100	$ 25,100	1875	165	7-12, PG		Yes	No
Average	$ 38,159	$ 23,467	1886	255				

Source: Boarding School Review

LOCAL PRIVATE SCHOOLS

Due to the limitations of this study, private schools were identified by their location within the boundaries of Chester and Montgomery Counties, rather than the 20-mile radius. There are 21 private schools with over 10,000 students as shown in Table 2. Even more limiting is the lack of publicly available information about these institutions. These 21 institutions and the six boarding schools largely represent the competition for the proposal at the Pennhurst site. Moving forward, an assumption has been made that private schools have general similarities to boarding school statistics.

Table 2: Local Private Schools

| County	School	District	Students
Chester	Bishop Shanahan High School		1,301
Chester	Center for Arts & Technology-P		465
Chester	Delaware Valley Friends School		158
Chester	Southeast Secure Treatment Uni School		27
Chester	Villa Maria Academy High		443
Montgomery	Academy of The New Church Boys		133
Montgomery	Academy of The New Church Girl		132
Montgomery	Akiba Hebrew Academy		350
Montgomery	Bishop Mc Devitt High School		827
Montgomery	Christopher Dock Mennonite High School		424
Montgomery	Gwynedd Mercy Academy		380
Montgomery	Kennedy Kenrick Catholic High School		503
Montgomery	La Salle College High		1,028
Montgomery	Lakeside School		117
Montgomery	Lansdale Catholic High School		945
Montgomery	Lincoln Academy		60
Montgomery	Merion Mercy Academy		441
Montgomery	Mount Saint Joseph Academy		560
Montgomery	Perkiomen Valley New Beginning School		39
Montgomery	Souderton Area High School		1,448
Montgomery	St. Basil Academy		365
Montgomery	St. Pius X High School		603
Total			10,749

Source: SchoolTree.org

LOCAL PUBLIC SCHOOLS

The region for identifying public schools for this study is the 20-mile radius and all of Chester and Montgomery Counties. Within the 20-mile radius includes portions of Delaware, Lancaster, Bucks, Berks and Lehigh Counties and so used as a result (Figure 2). While difficult to identify, the variation in color within Figure 2 represents the different counties. Portions of these counties and subsequent school districts fell within the 20-mile radius. 61 schools are located within this area, comprising of an aggregate student population of over 61,000 and are shown in Table 3. 48 public high schools are located within Chester and Montgomery counties, while 13 additional schools are found within the 20-mile radius of the surrounding counties.

In addressing SAT scores as the primary attribute of the current market supply, several approaches can be taken. This includes identifying 2010 scores, an average over several years and the standard deviation between the two. The later can help identify progress or a retreat for future predictions. Each is illustrated below and they identify different schools at the peak or bottom by these comparisons. Figure 6 shows a range in Pennsylvania boarding school SAT scores, with an average score of 1830. Figure 7 shows the gap between public institutions with the top and bottom 10% within the market area. This is a gap of over 200 points, although the average score among the schools is 1514. This illustrates that boarding schools
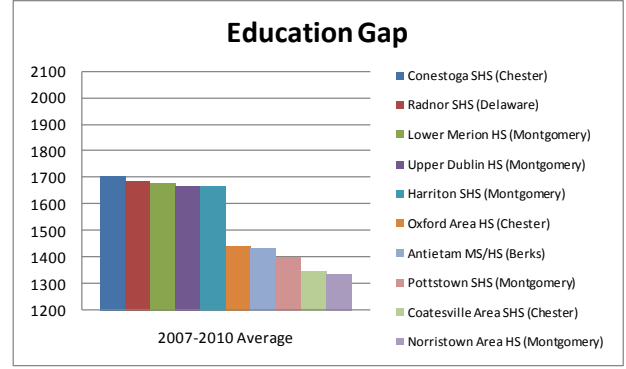
undoubtedly house an atmosphere for a superior education in regards to SAT standards in addition to a large difference in public education quality.

Figure 6: Boarding School SAT Scores
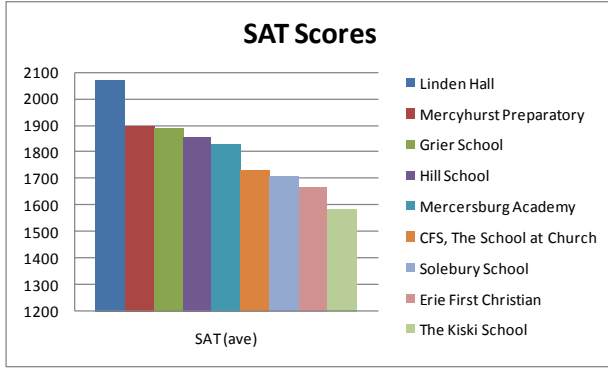
Source: Boarding School Review

**Figure 7: Public School Education Gap**

Source: Pennsylvania Department of Education

Figure 8 illustrates the largest decrease of SAT scores among public schools in 2010 from the previous four-year average. The figure shows not only dismal results among these schools, but also a significant decline in 2010 from the average. Figures 7 and 8 identify seven schools that are most struggling within the market area in regards to SAT statistics. There is an overlap of three schools between the two figures, showing that they are the bleakest high schools in the area, while the remaining four schools are also of great concern for their perspective market. Figure 9 illustrates the school districts of the mentioned high schools. The color yellow represents two districts with the largest drop from the average SAT score; orange represents the two school districts with the lowest average SAT score, while the color red represents the school districts that are represented by both.

MARKET DEMAND

The demand for schools lies in the quality of education or the lack of quality, causing a demand to ensue. This can be seen around the country with lotteries for limited student entrance among quality educational institutions in an otherwise poor educational system. The market around Pennhurst does not represent the previously described disparity, but a diverse range of educational quality can be found among local public schools. Coupling information from Figures 7 and 8 suggest that there are seven school districts that may be prime territory to target for an improved school institution. The seven underperforming high schools are highlighted in yellow in Table 3 and accumulate to a total of 6988 students. If the Pennhurst boarding school could gain 56 students from these or other local schools, it would reach the 19% mark that other local boarding schools have obtained. In addition, the 56 student benchmark equals less than one percent of the 6988 students within the district boundaries.

Figure 8: Decline in Low Performing High Schools
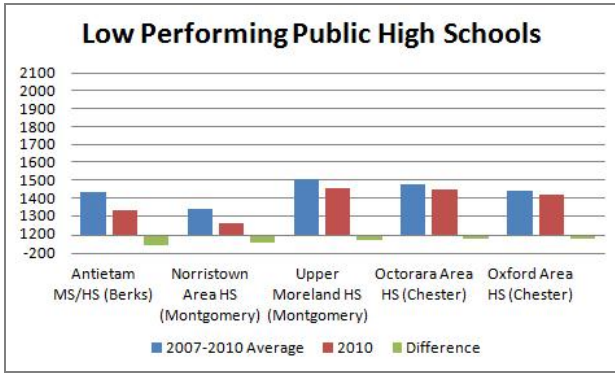
Source: Pennsylvania Department of Education

The average acceptance rate among boarding schools at 50% also shows that there is a large demand. If schools were to be looked at as a business, then they could easily make an argument that on average, public schools are subpar to private education for many reasons, one of which has been shown in this study. If they did not have an entrance exam and tuition fee, the issue would be clear to illustrate. Their target market would then be to underrated school systems as identified by the previous SAT, student: teacher ratio or other AYP comparables. Since numerous factors are at play, this study only helps identify a willing market.

Figure 9: Market Area/School District Locations
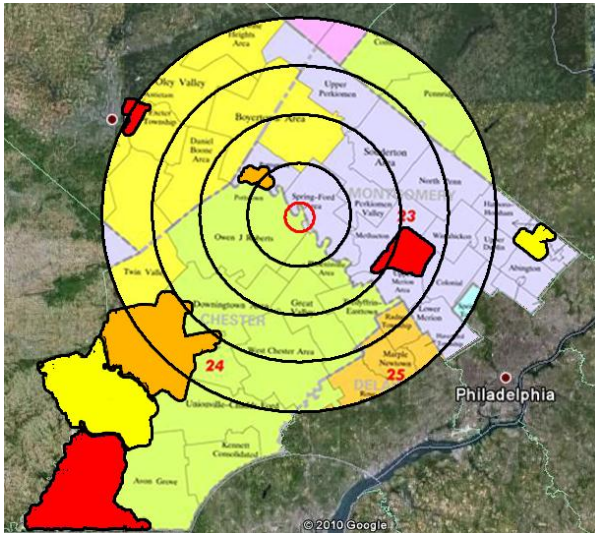
LOCAL

Since private institutions do not have proposed boundaries for their students, the local market will generally comprise of an area within driving distance to the site. The distance that a family is willing to travel is a relative attribute, although the 20-mile projection has been used for this case, due to its manageability.

Looking purely at population projects shows to a limited local demand, although the need for an improved education exists. As previously described, growth among children is expected to decrease within Montgomery and Chester Counties and the Northeast region as a whole. There are however seven school districts (previously described) that are identified in yellow in Table 3 whose households should be marketed too to fill enrollment capacity at Pennhurst.

Table 3: Local Public Schools

County	DISTRICT	SCHOOL NAME	Students
Berks	Antietam SD	Antietam MS/HS	515
Berks	Boyertown Area SD	Boyertown Area SHS	1523
Berks	Brandywine Heights Area SD	Brandywine Heights HS	631
Berks	Daniel Boone Area SD	Daniel Boone Area HS	951
Berks	Exeter Township SD	Exeter Twp SHS	896
Berks	Oley Valley SD	Oley Valley SHS	716
Bucks	Pennridge SD	Pennridge HS	2188
Bucks	Quakertown Community SD	Quakertown Community SHS	1642
Chester	Avon Grove SD	Avon Grove HS	1433
Chester	Coatesville Area SD	Coatesville Area SHS	1035
Chester	Downingtown Area SD	Downingtown HS West Campus	2138
Chester	Great Valley SD	Great Valley HS	1069
Chester	Kennett Consolidated SD	Kennett HS	1047
Chester	Octorara Area SD	Octorara Area HS	798
Chester	Owen J Roberts SD	Owen J Roberts HS	1201
Chester	Oxford Area SD	Oxford Area HS	974
Chester	Phoenixville Area SD	Phoenixville Area HS	880
Chester	Tredyffrin-Easttown SD	Conestoga SHS	1714
Chester	Unionville-Chadds Ford SD	Unionville HS	1190
Chester	West Chester Area SD	West Chester East HS	1595
Chester	West Chester Area SD	West Chester Henderson HS	1972
Delaware	Marple Newtown SD	Marple Newtown SHS	1122
Delaware	Radnor Township SD	Radnor SHS	1028
Delaware	Rose Tree Media SD	Penncrest HS	1347
Lancaster	Eastern Lancaster County SD	Garden Spot SHS	1170
Lehigh	Southern Lehigh SD	Southern Lehigh SHS	980
Montgomery	Abington SD	Abington SHS	1869
Montgomery	Cheltenham Township SD	Cheltenham HS	1704
Montgomery	Colonial SD	Plymouth-Whitemarsh SHS	1608
Montgomery	Hatboro-Horsham SD	Hatboro-Horsham SHS	1762
Montgomery	Jenkintown SD	Jenkintown HS	199
Montgomery	Lower Merion SD	Harriton SHS	791
Montgomery	Lower Merion SD	Lower Merion HS	1437
Montgomery	Lower Moreland Township SD	Lower Moreland HS	560
Montgomery	Methacton SD	Methacton HS	1503
Montgomery	Norristown Area SD	Norristown Area HS	1790
Montgomery	North Penn SD	North Penn SHS	3168
Montgomery	Perkiomen Valley SD	Perkiomen Valley HS	1222
Montgomery	Pottsgrove SD	Pottsgrove SHS	1042
Montgomery	Pottstown SD	Pottstown SHS	866
Montgomery	Souderton Area SD	Souderton Area SHS	1448
Montgomery	Springfield Township SD	Springfield Twp HS	847
Montgomery	Spring-Ford Area SD	Spring-Ford SHS 10-12 Gr Ctr	1643
Montgomery	Upper Dublin SD	Upper Dublin HS	1483
Montgomery	Upper Merion Area SD	Upper Merion HS	1090
Montgomery	Upper Moreland Township SD	Upper Moreland HS	1010
Montgomery	Upper Perkiomen SD	Upper Perkiomen HS	1127
Montgomery	Wissahickon SD	Wissahickon SHS	1381
Total			61305

Source: SchoolTree.org

NATIONAL/INTERNATIONAL

The national market may prove more viable as previously described. Growth projections in the West and South show large signs of growth over the next 20 years as illustrated in Figure 3. CollegeBoard provides state SAT scores which show that Hawaii, South Carolina and Georgia are in the bottom five within the country. These states and pocket areas with lower educational statistics around the country are areas with market potential. Since the local market is only at 19% on average, the national and international market may have to fill the void. The average national market is 63%, while the international market is 20%. It can also be noted that these areas are viable if properly marketed. Boarding School Review states that two boarding schools were formed in the last decade have capitalized on each. EF International (formed in 2005) in New York has 300 students with an international student ratio of 95%. The Oliverian School (formed in 2003) in New Hampshire gains 90% of its students from the national market.

CLOSING

The previous market study identified the market area, population growth, income projections, and supply and demand. While adequately identifying a market for a new boarding school at the Pennhurst site is not a science, there appears to be ample opportunity. On average, income projections suggest an ability to pay and local school districts show several schools which are far below the national average among SAT scores. The matter can get further complicated, but by identifying these facts suggest that there is a market for a top-quality educational facility if properly engineered and conveyed. This argument should discuss and identify the proposed benchmarks for SAT scores, the local market standard of 19%, the acceptance rate, the ability to afford the tuition and addressing the households with children that reside in lower-quality educational school districts. The data shows vast differences between institution quality, suggesting that if Pennhurst can adequately provide a service to concerned parents, the market shall present itself.

It should be noted that the difficulty may not be the market, but the constraints of opening a school, the qualifications required and the reputation that may be necessary for interest to ensue. The most recent addition to the local market of boarding schools is the Phelps School in 1946, although the Middlebridge School was formed in 2008 in Rhode Island. While there is little doubt that the Pennhurst site and campus would provide a great atmosphere to house a quality institution due to its size, location and campus structure, the feasibility is put in question and deserves its proper reverence for future study.

♦ SINGLE-FAMILY HOUSING

By Katie Coffield

EXECUTIVE SUMMARY

As two of the fastest growing counties in the State of Pennsylvania, population growth represents a major opportunity for single-family housing at the Pennhurst site. Chester and Montgomery counties are expected to gain a combined 20,211 households through 2014. Approximately 14,322 of these new households are predicted be family households, a prime market for single-family housing. The growth of median household income within the target area presents another opportunity for the construction of single-family housing. Chester and Montgomery counties rank amongst the wealthiest counties in the United States with respective median household incomes of $82,688 and 75,108 in 2009. Median household income for families is traditionally higher in the market area, with a median of $ 94,950 in

2009 and a projected median of $106,696 in 2014. In addition, Chester and Montgomery counties boast low unemployment rates in comparison to the rest of the state and moderate employment growth, especially in the professional services sector. A quality school district and property tax rates lower than the market area average should also drive demand for single-family housing on the site. Finally, mortgage rates at historic lows present a key opportunity for single-family development, providing potential buyers with the necessary capital to buy a home.

Despite this rosy picture, the market also presents many challenges. The greatest challenge is the oversaturation of the single-family housing market in Chester and Montgomery counties and faltering consumer confidence since 2007. At present, a buyer's market exists in the market area. Absorption rates as of 2010 show a 10-month supply of homes in Chester County and a 9-month supply of homes in Montgomery County. The oversaturation could be due to an average of 3,470 units per built per year in Chester County since 2000. Multiple Listing Service data for the market area shows that while the average number of home sold has decreased steadily since the end of 2007, the average sale price of the homes sold has increased. Due to the economic downturn, the past two years have witnessed the lowest levels of residential development activity experienced by both Chester and Montgomery counties in the past few decades. As a result, only a limited number of single-family detached developments were proposed in the market area in 2009-2010. Another challenge is the decreasing percentage of 35 to 49 year-olds in the market area. This a potential challenge for the construction of single-family housing because the greatest percentages of owner-occupied housing units in the market area were occupied by the 35 to 44 and 45 to 54 age cohorts in 2000.
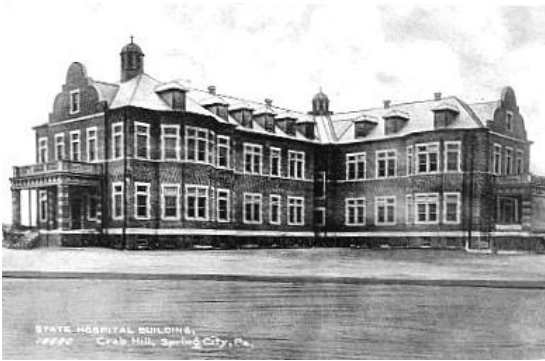
Following the market analysis, a feasibility study should be performed to determine the cost and potential impacts of the project. The construction of single-family housing will require the demolition of much of the historic Pennhurst campus. It is recommended that the Administration Building, Limerick Hall, and Mayflower Hall be targeted for reuse as retail, multi-family residential, or community activity space. The mixed-use concept and historic nature of the site can be marketed as unique assets, making this single-family housing development standout from competition.
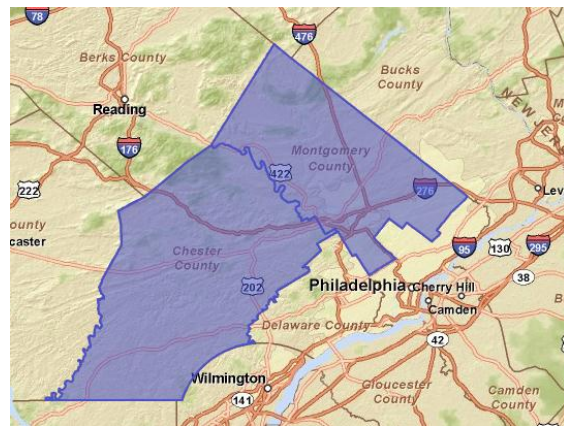
TARGET MARKET

This section will examine the demand for single-family detached housing on the Pennhurst Campus. Single-family detached housing is typically marketed to potential homeowners. Historically, homeownership has been strongly correlated to factors such as age, income, and household type.

- **Household Type:** Married-couple families are the household type most likely to own a home. In 2009, 82.8% of married-couple families were homeowners.[15]

- **Age:** Homeownership rates are strongly correlated to age. In 2009, only 39.7% of householders under the age of 35 were homeowners. This figure increased to 66.2% for householders between 35 and 44 years old. Homeownership rates continue to rise as householder age increases until 75.[16]

- **Income:** Income seriously affects one's ability to purchase a home. Low interest rates on mortgages and an increasing variety of housing types have helped people of different income brackets become homeowners. However, income level is often dictates house quality, size, and amenities.

MARKET AREA

The market area for single-family housing on the Pennhurst site is defined as Chester and Montgomery counties. This geographic area was selected because of the 6.81% of taxpayers who relocated to Chester County between 2005 and 2010, the highest percentage (1.25%) relocated from Montgomery County.[17]

These counties are located in southeastern Pennsylvania, west of the Philadelphia metropolitan area. The Pennhurst site is located in East Vincent Township, a township of Chester County. The site is bounded to the east by the Schuylkill River, which serves as the boundary between the two counties. The major transportation corridor within the market area is US Route 422. This corridor encompasses major centers of economic activity such as King of Prussia, Reading, and Valley Forge. US Route 422 provides connections to other major regional transportation routes, including US 222, US 202, I-76, I-176, I-276, and I-476. The anticipated growth along this corridor is expected to generate the majority of the demand for single-family housing in Chester and Montgomery Counties for the foreseeable future.

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[15] Source: http://www.danter.com/statistics/homeown.htm
[16] Source: http://www.danter.com/statistics/homeown.htm
[17] Source: www.city-data.com

DEMAND ANALYSIS

DEMOGRAPHIC TRENDS

POPULATION GROWTH

Population growth is a major demand driver for single-family housing. Between 1990 and 2000, the combined population of Chester and Montgomery counties increased by 12.2%. The population surge is likely correlated with the completion of US Route 422 in 1985. As the map below demonstrates, population within the corridor surged between 1990 and 2000, with significant increases in Limerick Township, Upper Province Township, Trappe Borough, Amity Township, and East Vincent Township. The population of the corridor is expected to grow 20% to 25% by 2030.
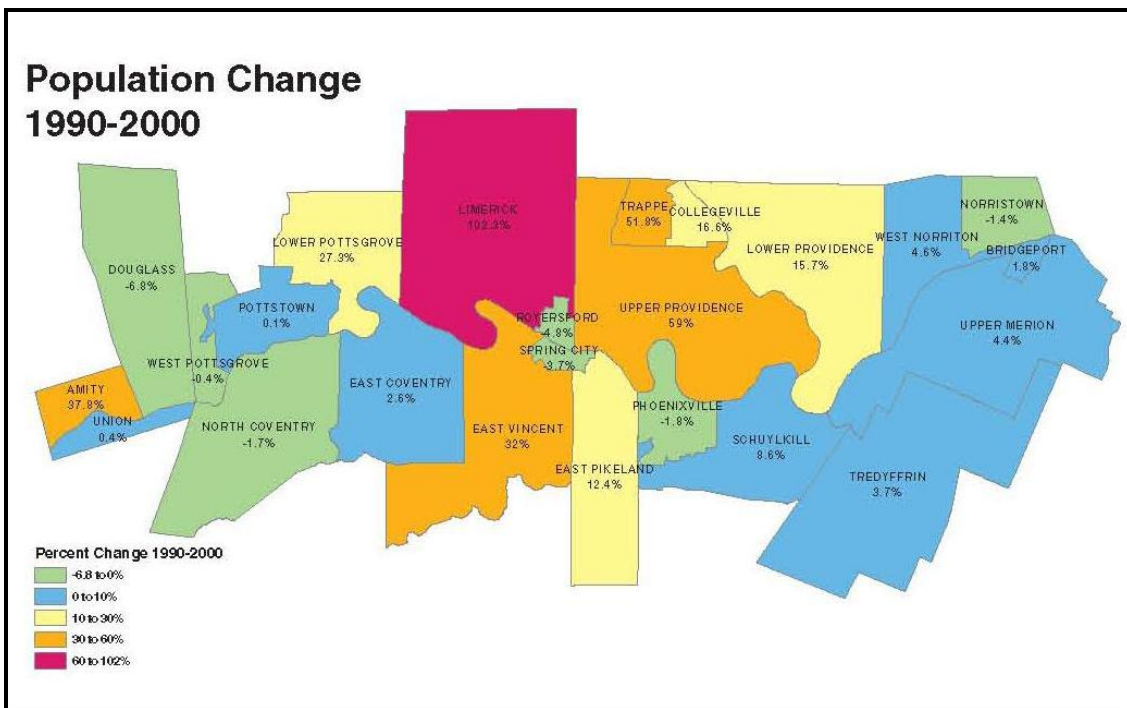

Source: DVRPC 2009 Plan

Population growth in Chester and Montgomery counties slowed between 2000 and 2009, yet the combined population of the counties still increased 7.8%. Continued population growth in the counties is expected, albeit at a lower rate, through 2014.

As shown in **Figure 1**, Chester County experienced higher growth rates than both Montgomery County and the State of Pennsylvania over the past two decades. In fact, Chester County's population growth is unrivaled by any Pennsylvania county.[18] This trend is expected to continue through 2014. The relative surge in population growth is favorable for single-family housing at the Pennhurst site, which is located within Chester County.

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[18]Source: *"Labor Market Profile,"* Chester County Workforce Investment Board (March 2008) 5.

Figure 1: Population Growth Rate
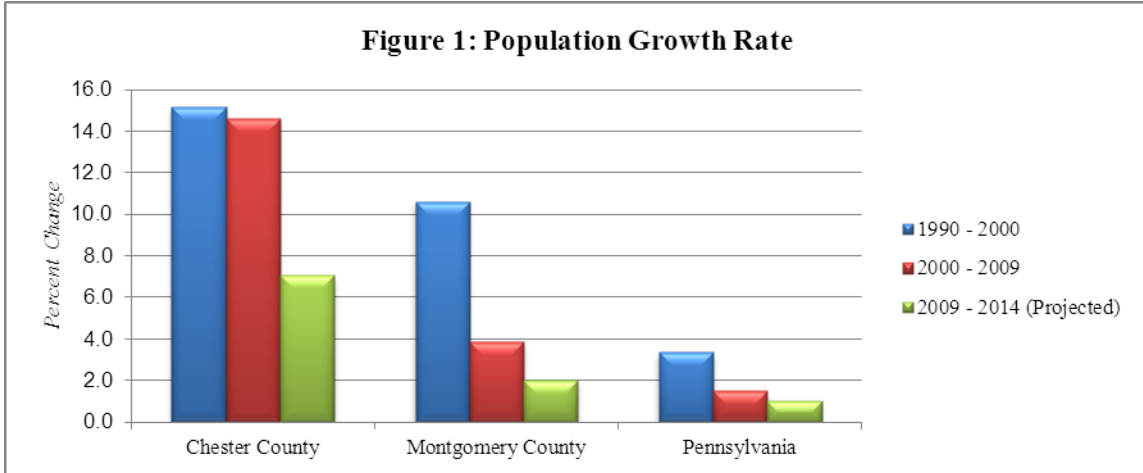
Source: Claritas, 2010.

HOUSEHOLDS

In 2009, there were estimated to be 482,050 total households in Chester and Montgomery counties. Of these, 70.1% were classified as family households. The total number of households in Chester and Montgomery counties is projected to increase 4.2% (approximately 20,211 households) through 2014. Approximately 14,322 of these will be family households.

Although the numbers of households and family households are expected to increase through 2014, these increases will be at lower rates than in previous decades. As shown in **Figure 2**, the total number of households in Chester and Montgomery counties was growing at a faster rate than family households between 1990 and 2000, representing a growing number of non-family households in the area. This trend reversed in 2000, as the number of family households began to grow at a faster rate than total households.

Figure 2: Household Trends
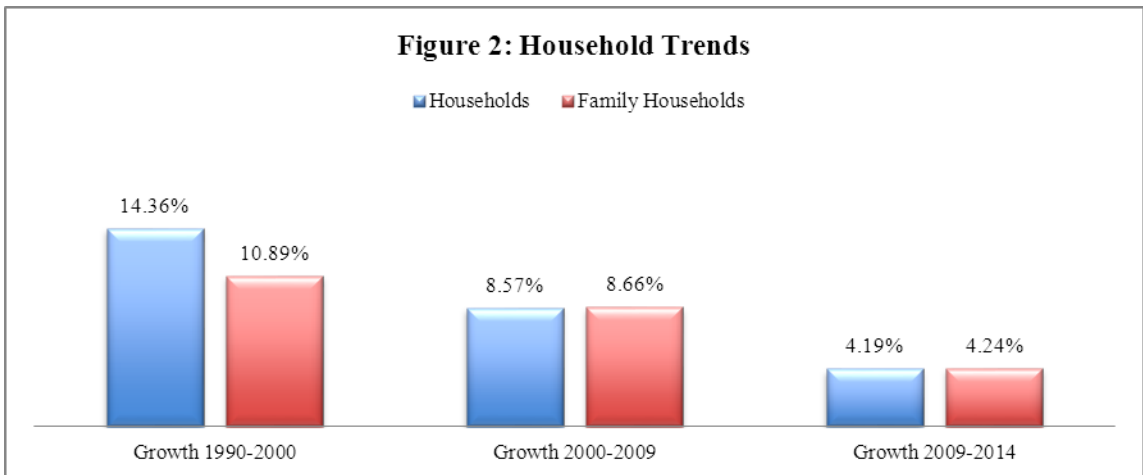
Source: Claritas, 2010.

AGE

A strong relationship exists between age and homeownership rates. As shown in **Figure 3**, nationwide homeownership rates experience a dramatic increase around the age of 35. Homeownership rates continue to steadily rise until the age of 75. It is likely that persons over the age of 75 would downsize or relocate to a retirement community rather than purchase a single-family home.

Figure 3: Homeownership Rates by Age of Householder
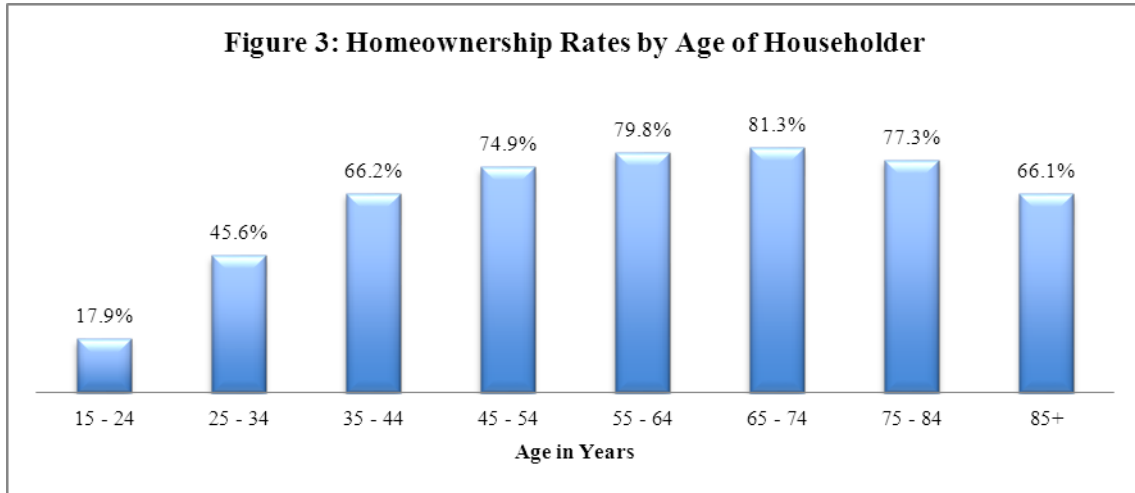
Source: US Census Bureau, Census 2000 Summary File 1.

In Chester and Montgomery counties, it was estimated that 49.9% of residents were between 35 and 74 years-of-age in 2009 **(Table 1)**. The relative size of this age group is expected to decrease slightly in comparison to other age groups by 2014. This trend could be attributed to the negative growth rates predicated for the 35-44 and 45-49 age cohorts between 2009 and 2014. Between 2009 and 2014, the total population of the 35-44 age cohort is expected to decrease 13.2% while the total population of the 45-49 age cohort is expected to decrease 7.1%.

Table 1: Population Age

	2000		2009		2014		% Change 2000-2009	% Change 2009-2014
	Total	%	Total	%	Total	%		
Age 0 to 4	76,620	6.47%	79,572	6.24%	82,362	6.21%	3.9	3.5
Age 5 to 9	83,897	7.09%	81,125	6.36%	81,501	6.14%	-3.3	0.5
Age 10 to 14	85,979	7.26%	84,850	6.65%	83,655	6.30%	-1.3	-1.4
Age 15 to 17	48,231	4.07%	57,504	4.51%	58,677	4.42%	19.2	2.0
Age 18 to 20	39,308	3.32%	47,405	3.71%	50,418	3.80%	20.6	6.4
Age 21 to 24	48,200	4.07%	63,578	4.98%	72,542	5.47%	31.9	14.1
Age 25 to 34	155,651	13.15%	136,460	10.69%	142,700	10.75%	-12.3	4.6
Age 35 to 44	204,856	17.31%	181,034	14.19%	157,148	11.84%	-11.6	-13.2
Age 45 to 49	91,601	7.74%	105,362	8.26%	97,910	7.38%	15.0	-7.1
Age 50 to 54	79,540	6.72%	101,261	7.94%	105,964	7.98%	27.3	4.6
Age 55 to 59	61,012	5.15%	86,627	6.79%	100,476	7.57%	42.0	16.0
Age 60 to 64	46,229	3.91%	71,153	5.58%	84,682	6.38%	53.9	19.0
Age 65 to 74	82,690	6.99%	91,416	7.16%	115,069	8.67%	10.6	25.9
Age 75 to 84	59,300	5.01%	61,810	4.84%	62,673	4.72%	4.2	1.4
Age 85+	20,484	1.73%	26,923	2.11%	31,262	2.36%	31.4	16.1
Total	1,183,598	100%	1,276,080	100%	1,327,039	100%	7.8	4.0

Source: Claritas, 2010.

INCOME

Chester and Montgomery counties rank amongst the wealthiest counties in the United States. In 2009, the median household incomes for Chester and Montgomery counties were $82,688 and 75,108, respectively. As shown in **Table 2**, the median household income for the market area was $77,908 in 2009. This figure is substantially higher than the median household incomes for Pennsylvania and the Nation as a whole. Median household income is also anticipated to grow at a greater rate than in Pennsylvania or the Nation between 2009 and 2014.

Table 2: Median Household Income Trends

|	2000	2009	2014	% Change 2000-2009	% Change 2009-2014
Total Market Area	$63,072	$77,908	$86,278	23.5%	10.7%
Pennsylvania	$40,545	$48,994	$54,077	20.8%	10.4%
United States	$42,729	$51,433	$56,581	20.4%	10.%

Source: Claritas, 2010.

Within the market area, the median household income for families has been historically higher than the median household income for total households. In 2009, median household income for families was $94,950 and is expected to reach $106,696 by 2014.

The median Effective Buying Income (EBI) in Chester and Montgomery counties is expected to increase 9.3% between 2009 and 2014. In 2009, Chester County had a higher median EBI ($65,283) than Montgomery County ($60,040).

HOMEOWNERSHIP

Owner-occupied housing has traditionally been more prevalent than renter-occupied housing in Chester and Montgomery Counties. In 2009, 75.1% of occupied housing units in Chester and Montgomery counties were owner-occupied. The percentage of owner-occupied housing increased slightly (0.8%) for the counties between 2000 and 2009. Within the market area, the greatest percentages of owner-occupied housing units were occupied by the 35 - 44 and 45 - 54 age cohorts as of the 2000 Census **(Figure 4)**.
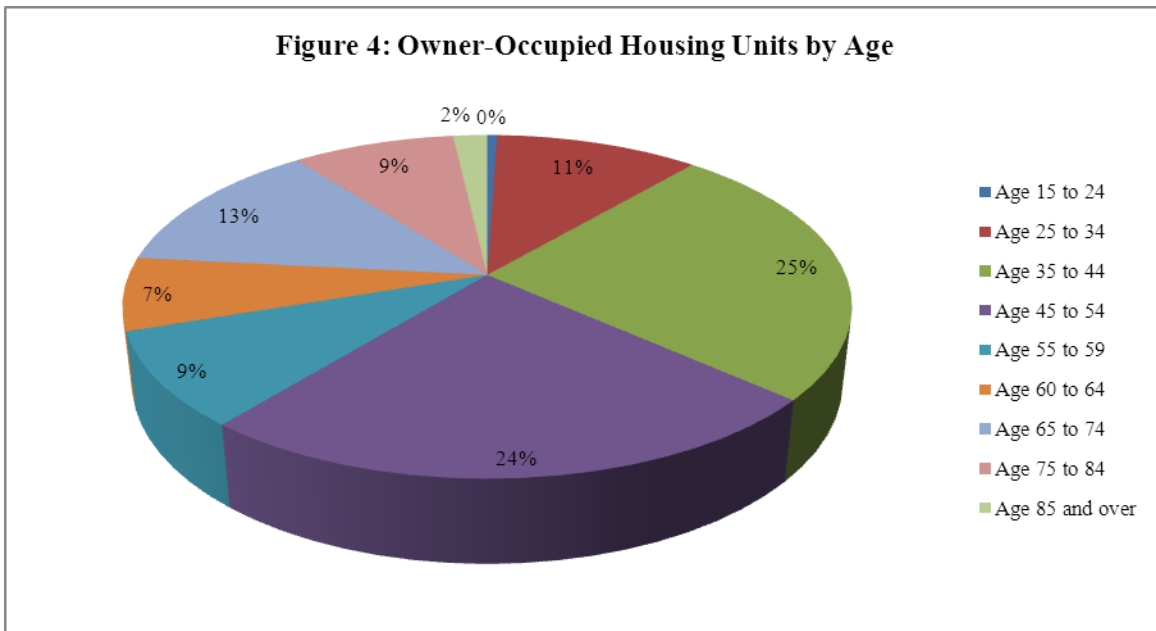
Source: Claritas, 2010.

EMPLOYMENT & ECONOMIC TRENDS

REGIONAL JOB GROWTH

US Route 422 is the fastest growing corridor in the Philadelphia suburbs. Urbanized portions of the expressway, closer to the City of Philadelphia, are estimated to carry over 100,000 vehicles per day. The Delaware Valley Regional Planning Commission (DVRPC) forecasts the creation of 28,000 new jobs along the US Route 422 corridor before 2030. The employment boom will require the construction of approximately 21,000 new housing units.

Other sources predict even greater growth for the Philadelphia region. Despite the recent nationwide economic downturn, Moody's Economy.com predicts that the entire Philadelphia region will experience an upturn between 2011 and 2013, gaining over 190,000 jobs. While it is not clear what percentage of these jobs will be located in the US Route 422 corridor, the increase in employment opportunities will likely increase the number of households and raise the average household income.

Contrary to these predictions, the rate of total employment growth in Chester and Montgomery counties has slowed over the past decade, as shown in **Table 3**. The declining employment growth rates can be attributed to the shrinking "Goods-Producing Employment Sectors," which include construction, natural resources and mining, and manufacturing. Both counties, however, experienced an increase in the growth rates of "Private, Services-Providing Employment Sectors," which include trade, transportation and utilities, information, financial activities, professional and business services, education and health services, and leisure and hospitality services. The growth of white collar, service-oriented employment rather than blue collar, manufacturing-oriented employment is favorable for the medium- to high-end single-family home market.

Table 3: Employment Trends

	Chester County		Montgomery County	
	1990-2000	**2000-2009**	**1990-2000**	**2000-2009**
Total Employment	3.1%	1.3%	1.6%	0.0%
Goods-Producing Employment	0.3%	-2.9%	-0.3%	-3.9%
Private Services-Providing Employment	4.3%	2.0%	2.2%	0.8%

Source: Bureau of the Census, 2009. 1990 Census of Population and Housing; 2000 Census of Population and Housing; Global Insight, 2010. Spring 2010 County Forecasts.

UNEMPLOYMENT

According to the Department of Labor Statistics September 2010 data, Chester and Montgomery counties have the second and tenth lowest unemployment rates of all Pennsylvania counties. Their respective unemployment rates of 6.2 and 7.0 are well below the state and national averages.

TOP AREA EMPLOYERS

Table 4 shows the largest private sector employers located within Chester and Montgomery counties. Predominant industry sectors include healthcare, pharmaceuticals, and technology.

Table 4: Top Private Sector Employers

Company	Industry	City	Employees
Chester County			
The Vanguard Group	Investment Management	Valley Forge	8,500
SunGard Data Systems	Computer and Software	Wayne	2,500
Tyco Electronics	Software & Hardware	Newtown Sq.	4,000
QVC	Electronic Retail Merchandising	West Chester	2,800
Siemens Medical Solutions	Medical Technologies	Malvern	2,000
Devereux	Mental Health Services	West Chester	1,500
Unisys	Software Services	Malvern	1,500
Telespectrum	Telemarketing Services	Berwyn	1,300
Wyeth	Pharmaceutical Testing	Frazer	1,250
Paoli Hospital	Hospital	Paoli	1,100
Brandywine Hospital	Hospital	Coatesville	975
Chester County Hospital	Hospital	West Chester	975
Communications Test Design	Telecommunications	West Chester	950
Centocor	Pharmaceutical Manufacturing	Malvern	820
Cephalon	Pharmaceutical Manufacturing	West Chester	800
Sanofi Synthelabo	Pharmaceutical Manufacturing	Malvern	800
Graco	Children's Products	Exton	750
De Lage Landen	Financial Services	Wayne	700
Montgomery County			
Merck & Co Inc	Pharmaceutical & Vaccines	West Point	12,000
Abington Memorial Hospital Inc	Hospital	Abington	4,917
Allied Barton Security Services	Security, Integrated Asset Protection	King of Prussia	4,500
Northwestern Human Services Inc	Mental Health Services	Lansdale	4,000
Lockheed Martin Corp	Systems &, Software Development	King of Prussia	3,700
Aetna Inc	Health Insurance	King of Prussia	3,000
Unisys Corp	Information & Technology Services	Blue Bell	3,400
Citizens Bank	Commercial Banking	Norristown	3,000
Mercy Health System	Health Care	Conshohocken	3,000
Propoco Inc	Facilities Support Services	Plymouth Meeting	3,000
Mds Pharma Services Inc	Testing Laboratories	King of Prussia	2,871
Home Depot, USA Inc	Retail	Lansdale	2,500
IKEA US Inc	Furniture Stores	Conshohocken	2,400
Main Line Health Systems Inc	Four Hospitals & Healthcare Services	Bryn Mawr	2,100
Holy Redeemer Health System	Healthcare	Huntingdon Valley	2,068
David's Bridal Inc	Women's Clothing Stores	Conshohocken	2,000
ABM Services	Building Services-Janitorial	King of Prussia	750
Genuardi's Markets	Retail Supermarkets	Norristown	500

Source: Greater Philadelphia Chamber of Commerce, 2010. Major Employers Directory. Philadelphia Business Journal, 2010. Book of Lists 2010. Dun and Bradstreet, 2010. Selectory Database for the Greater Philadelphia Region.

COMMUTING PATTERNS

As shown in **Table 5**, employed residents tend to live in the county in which they work. In 2010, 47.12% of persons working in Chester County lived were residents of Chester County. Likewise, 42.02% of persons working in Montgomery County were residents of Montgomery County. Therefore, as job growth in Chester and Montgomery counties continues to expand, additional housing will be required within the counties to accommodate future employees and their families.

Table 5: Commuting Patterns

Persons Working in Chester County	242,663	100%	Persons Working in Montgomery County	495,772	100%
Live in:			Live in:		
Bucks Co. PA	6,804	2.80%	Bucks Co. PA	53,412	10.77%
Chester Co. PA	114,336	47.12%	Chester Co. PA	33,637	6.78%
Delaware Co. PA	24,233	9.99%	Delaware Co. PA	34,568	6.97%
Montgomery Co. PA	32,693	13.47%	Montgomery Co. PA	208,303	42.02%
Philadelphia Co. PA	13,195	5.44%	Philadelphia Co. PA	80,643	16.27%
New Jersey	3,894	1.60%	New Jersey	12,106	2.44%
Delaware	6,636	2.73%	Delaware	2,641	0.53%
Out of Region	40,872	16.84%	Out of Region	70,462	14.21%

Source: Bureau of the Census, 2010. On the Map Data Base.

TAXES & SCHOOL DISTRICT

The Pennhurst site is located in the East Vincent Township. Within this municipality, the total property tax rate is $23.09/$1,000 assessed value and the effective property tax rate is $11.94/$1,000 assessed value. The average effective property tax rate for Chester County is $15.77/$1,000 and $14.90/$1,000 for Montgomery County.[19] The site is located within the boundaries of the Owens J. Roberts School District. The student-teacher ratio for Robert J. Owens High School is 13.8:1 compared to 15.6:1 for Pennsylvania.[20] In addition, SAT scores for 2009 at Robert J. Owens High School were higher than the state average, with 1532 compared to 1477.[21]
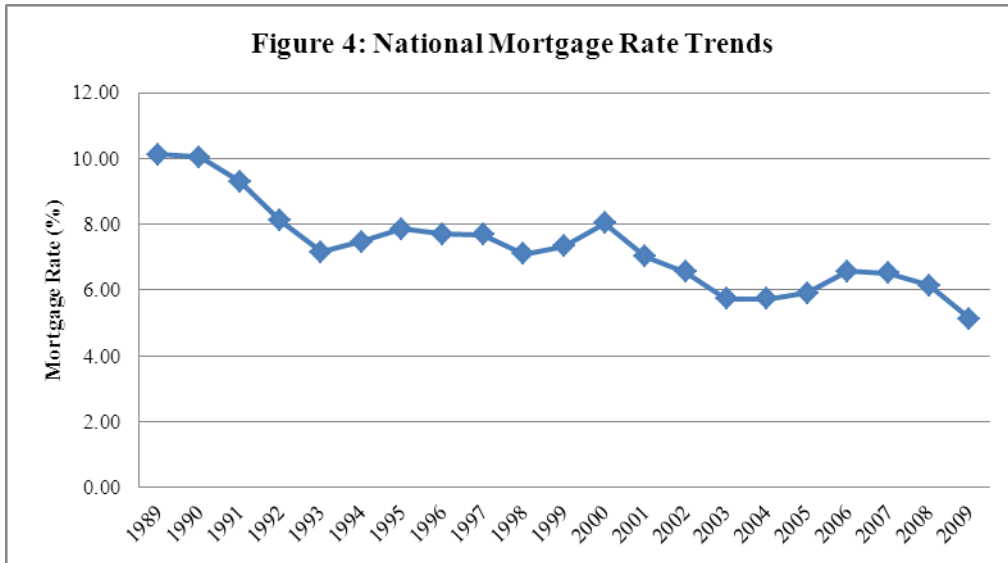
MORTGAGE RATES

Mortgage rates for the Spring City zipcode (19475) ranged from 4.38% to 4.91% in December 2010. These rates are consistent with the national average for December 2010, which was 4.58%.[22] The Nation has experienced a steady decline in mortgage rates over the past two decades **(Figure 4)**. The highest rates occurred in 1989 at 10.11%. Rates have continuously fallen since that time. In the past five years, mortgage rates peaked at 6.58 in 2006. Since that time, mortgage rates have reached their lowest levels in decades. This trend is greatly beneficial to homebuyers who need to secure a mortgage loan to purchase a home.

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[19] http://www.selectgreaterphiladelphia.org/data/counties/chester.cfm
[20] Source: Schooldigger.com (December 2010)
[21] Source: Pennsylvania Department of Education, 2010. State, District and School Report Cards.
[22] Source: www.bankrate.com (December 2010)

Figure 4: National Mortgage Rate Trends

Source: 2010 National Association of REALTORS

However, **Figure 5** demonstrates that mortgage rates are projected to steadily increase in spring 2011. Approximately 76.4% of Chester County housing units and 72.1% of Montgomery County units had a mortgage in 2010.[23]

Figure 5: National Mortgage Rate Projections

Source: http://www.forecasts.org/fha.htm

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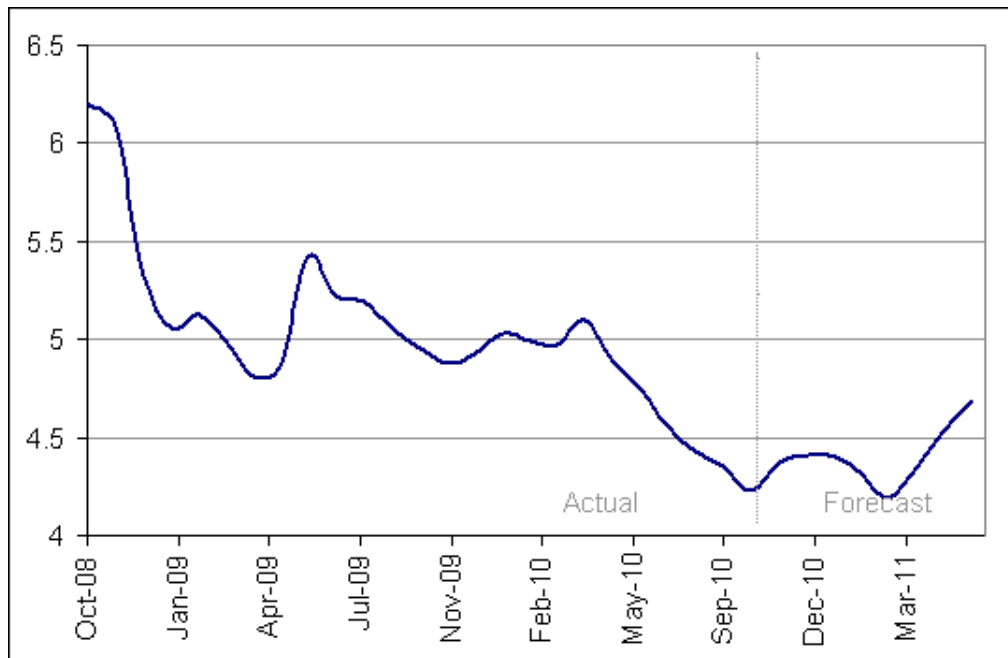
[23] Source: www.city-data.com (December 2010)

SUPPLY ANALYSIS

EXISTING HOUSING STOCK

In 2009, there were an estimated 502,450 housing units in Chester and Montgomery counties. Of these, 95.9% were occupied. The majority of housing units (59% - 296,491 total) were described as one-unit detached, or single-family. As shown in **Table 6**, Chester and Montgomery counties experienced a housing boom between 1999 and 2009, with the construction of an estimated 65,934 total housing units.

Table 6: 2009 Estimated Housing Units by Year Built

	Total	Percentage
1999 - 2009	65,934	13.12%
1995 - 1998	27,577	5.49%
1990 - 1994	30,773	6.12%
1980 - 1989	66,069	13.15%
1970 - 1979	69,249	13.78%
1960 - 1969	63,024	12.54%
1950 - 1959	66,185	13.17%
1940 - 1949	30,818	6.13%
1939 or Earlier	82,821	16.48%
Total Housing Units	502,450	100%

Source: Claritas, 2010

MEDIAN HOME VALUES & AFFORDABILITY

The median value of an owner-occupied housing unit in the market area was estimated to be $293,743 in 2009. This value represents a 75.6% increase from the 2000 value of an owner-occupied housing unit in the market area ($167,299). Owner-occupied housing unit values in the market area are anticipated to reach $339,531 by 2014. The median home price was significantly higher in Chester County ($324,058) than Montgomery County ($281,812). **Table 7** indicates that almost half of owner-occupied housing units in the market area were valued over $300,000 in 2009 (48%). Approximately 31.7% of owner-occupied units were valued between $200,000 and $299,999. In all, Table 7 shows that the market area has a high percentage of high value owner-occupied housing.

Table 7: 2009 Estimated All Owner-Occupied Housing Units by Value in Market Area

	Total	Percentage
Less than $20,000	1,388	0.38%
$20,000 to $39,999	2,016	0.56%
$40,000 to $59,999	1,634	0.45%
$60,000 to $79,999	1,859	0.51%
$80,000 to $99,999	2,727	0.75%
$100,000 to $149,999	18,718	5.17%
$150,000 to $199,999	45,231	12.49%
$200,000 to $299,999	114,620	31.66%
$300,000 to $399,999	71,091	19.64%
$400,000 to $499,999	40,105	11.08%
$500,000 to $749,999	39,181	10.82%
$750,000 to $999,999	12,795	3.53%
$1,000,000 or more	10,677	2.95%
Total	362,042	100%

Source: Claritas, 2010

Assuming a thirty-year mortgage at five percent interest, the median home cost in the market area is $1,576.88 monthly or $18,922.56 annually. The composite affordability index of 103 indicates that a household earning the market area median income ($77,908) has 103% of the income necessary to qualify for a mortgage loan for a median-priced home. Those households earning below $75,690 will be unable to qualify for a mortgage loan for a median-priced home. Approximately 232,473 households in the market area earn less than $75,000 a year.

EXISTING & PLANNED PROJECTS

Between 2000 and 2009, 43,875 building permits for single-family homes were granted in Chester and Montgomery Counties. As shown in **Figure 6**, Chester County has consistently granted more permits than Montgomery County.

Figure 6: Building Permit Approval in Market Area
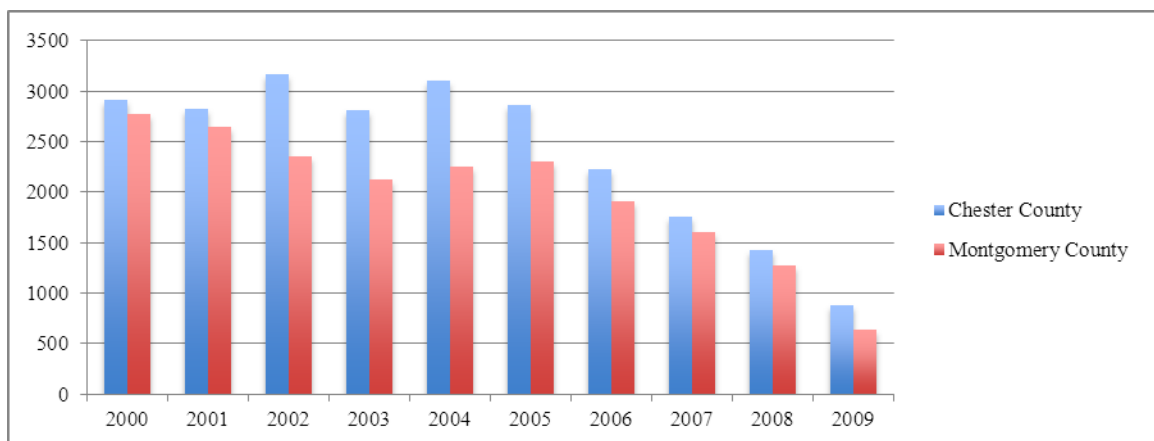
Source: City Data

The year 2008 marked the lowest amount of residential development activity experienced by both Chester and Montgomery counties since the municipalities began collecting the data in 2000 and 1970, respectively. The *Chester County Planning Commission Annual Report* stated that only 2,290 new housing units were constructed in 2008. The average had been 3,470 units per year since 2000. In 2009, 3,381 units were proposed, representing an approximate 8.9% decrease in proposals from the previous year.[24]

In Montgomery County, 1,419 residential units were proposed in 2009, representing a 6% increase from 2008. Many of these proposed units were located in the eastern and central portions of the county. The majority of the proposed units were multi-family, with a trend towards age-restricted development. In 2009, 686 residential units were approved for construction, marking a 39% decrease from 2008. Both single-family proposals and construction approvals have been steadily declining in Montgomery County since 2007.[25]

Table 8 below represents the major single-family detached housing unit proposals submitted in Chester and Montgomery Counties in 2009-2010. The two Soltys/Cutler Group developments are located in the same township as Pennhurst and are in the final planning stages. In addition, the proposed Ivywood Estates is located in East Coventry, only 4 miles from the Pennhurst site. The Horsham Valley Golf Club Subdivision, the Enclave at Montgomery, and the Preserve at Worchester are all located within 30 miles of Pennhurst. The Langston Subdivision proposal is located 50 miles from the site and would most likely not compete with a single-family development at Pennhurst.

Table 8: Major Single-Family Detached Proposals in Market Area (2009-2010)

Name	Units	City/Township	County
Ivywood Estates	60	East Coventry	Chester
Langston Subdivision	180	East Nottingham	Chester
Soltys/Cutler Group (Schuylkill Road)	92	East Vincent	Chester
Soltys/Cutler Group (Buckwater Road)	42	East Vincent	Chester
Horsham Valley Golf Club Subdivision	124	Horsham	Montgomery
The Enclave at Montgomery/Montgomery Preserve & Montgomery Knoll	57	Montgomery	Montgomery
The Preserve at Worchester	39	Worchester	Montgomery

Source: Chester County Subdivision and Land Development Application Inventory (2009-2010); 2009 Annual Summary: Subdivision, Land Development, and Zoning Activity.

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[24]Source: Chester County Planning Commission Annual Report, 2009.
[25] Source: 2009 Annual Summary: Subdivision, Land Development, and Zoning Activity. Montgomery County, 2009.

ABSORPTION RATES

A buyer's market currently exists in Chester and Montgomery counties. The Inventory Accumulation/Absorption Rate as of November 2010 shows a 10-month supply of homes in Chester County and a 9-month supply of homes in Montgomery County.[26] While these figures are not optimal, they reflect a slightly more positive outlook than the numbers forecasted in **Figure 7**. In November 2010 approximately 4,871 homes were for sale in Chester County and 6,636 were for sale in Montgomery County.[27]

Figure 7: Inventory Accumulation/Absorption Rates for Market Area
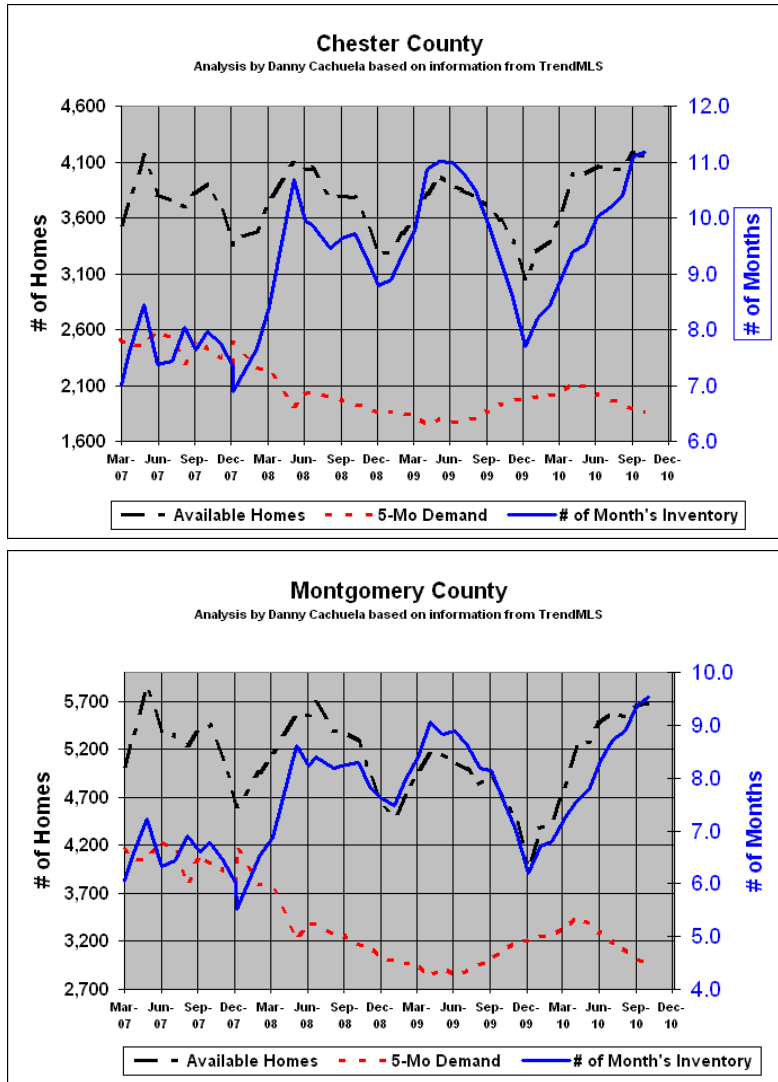
www.showmethehome.com

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[26]Source: www.showmethehome.com (TrendMLS)
[27]Source: http://www.realtor.com/property-search/Philadelphia_PA_Metro-Area?source=web (December 2010)

Figure 8 demonstrates the number of homes sold per month and the average selling price of the homes that sold. Between June 2010 and December 2010, the number of homes sold decreased but the average selling price of those homes increased. This trend was evident in both Chester and Montgomery counties.

Figure 8: Homes Sold and Average Selling Prices in Market Area
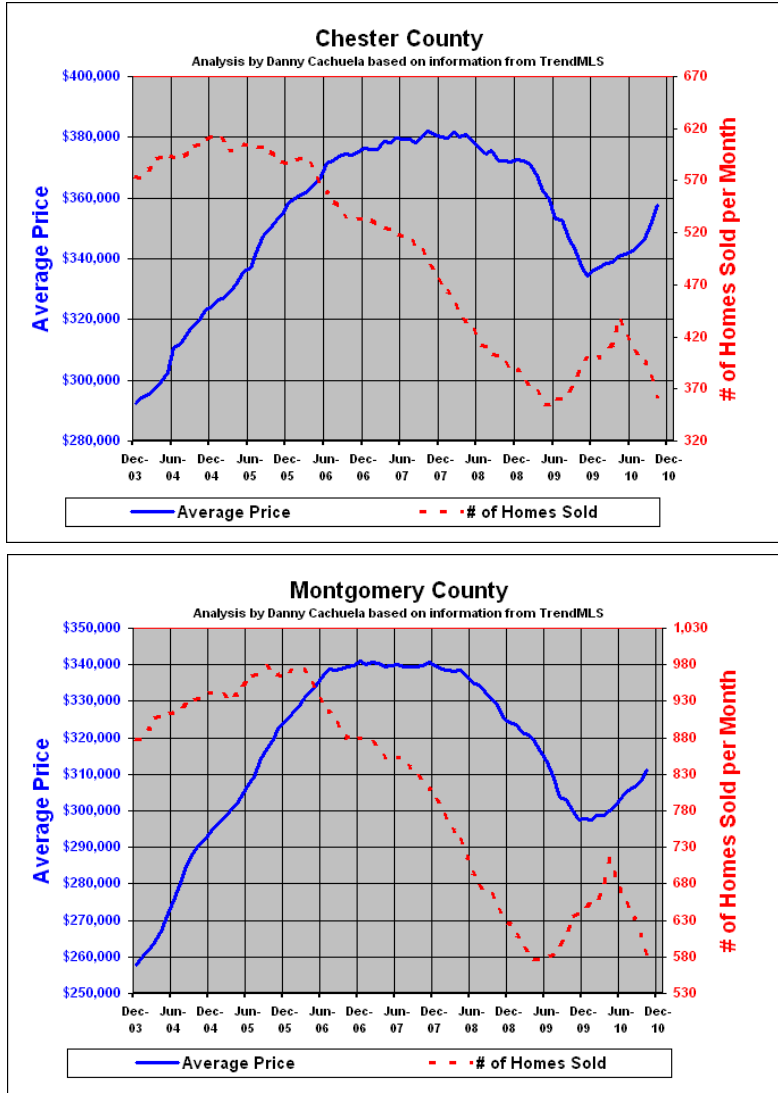
www.showmethehome.com

# ♦ MULTI-FAMILY HOUSING

By Chevone Hall

EXECUTIVE SUMMARY

A comprehensive analysis of the market data indicates that there would be demand for rental housing growth although this is mostly based on future expectations of local land-use and retail development. The current market does not support aggressive rental growth around Pennhurst campus. The significant groups of locals are a mix of middle aged and older, educated, and affluent residents. Most of these households do not have kids, and residents typically own their own homes and hold management-level positions. The data confirms that the business sector is strong in Pennsylvania, although not recession proof. Growth in this region is essentially tied to national and industry trends and this will be a major factor in the actual employment growth in the coming years.

Other factors that should be further explored include the Delaware Valley Regional Planning Commission development plan along US 422. If successful, there will be significant competition for Pennhurst, however the historic nature of the site may be an advantage, and with proper branding this can lure additional visitors and tourists. In the private sector, there are major retail changes within the area. These changes could bring about more jobs, but also competition from mix-used purposes of the site. In addition, this new workforce could change the local demographic and in such a way to necessitate more rental housing. To optimize this opportunity for success, Pennhurst campus should seek to obtain access and necessary land use permits to make the site more accessible to new major transportation modes.

Estimates for the current population predict a growing segment between the ages of 18 through 34. The younger population will become a more significant portion of the population by 2014 (20.76% in Chester county; 19.48% in Montgomery county). Successful rental development can appeal to this segment or to the older segment, including those in nearby markets, who may want to downsize to an apartment. Current younger population segments in competing neighborhoods tended to be more affluent then the older segments in these areas, though this may change with the anticipated retail workforce. In order to compete with local inventory, the possible community destination at Pennhurst should include some popular amenities such as a clubhouse, game room, fitness room, laundry center, or swimming pool. An aggressive branding effort would be needed to shed lingering stigma of the campus, in order to create a mixed-used destination that appeals to the changing population, while maintaining historic charm. Current rent in nearby Spring City is typically between $600-$1000, however further financial analysis is needed to assess whether two-bedroom garden apartments or townhouse-like apartments within larger mixed-use community development will be feasible.

MARKET AREA

The Pennhurst State Hospital campus is located in Spring City, PA. For the purpose of the study, Chester and Montgomery County were both assessed to determine whether a strong market population exists to justify an investment into repurposing buildings on Pennhurst campus into multi-family rental residences.
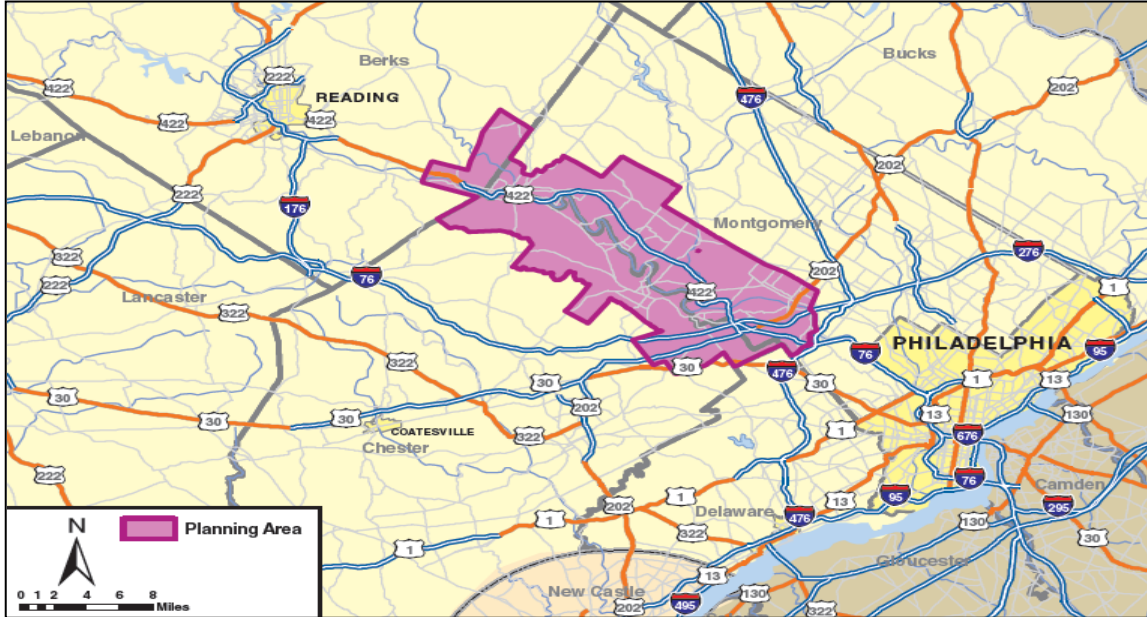
POPULATION DATA

PRIZM SEGMENTATION

According to Neilson research, the major demographic groups of the area are Country Squires, God's Country, Big Fish Small Pond, Fast-Track Families, Movers and Shakers, Country Casuals, and Upper Crust. In Montgomery County this demographic is slightly different to Middleburg Managers, Home Sweet Home, Pools and Patios, and New Empty Nests.

PRIZM Household Segments	Chester County, PA				Montgomery County, PA			
	2009 Households	%	2014 Households	%	2009 Households	%	2014 Households	%
Households by PRIZM Segment	182,453		195,919		299,597		306,342	
Top 10 PRIZM Segments	05 Country Squires	11.37%	05 Country Squires	11.61%	01 Upper Crust	9.26%	01 Upper Crust	9.20%
	11 God's Country	10.02%	11 God's Country	10.17%	03 Movers & Shakers	7.12%	03 Movers & Shakers	7.14%
	09 Big Fish, Small	9.35%	09 Big Fish, Small	9.45%	27 Middleburg	5.33%	27 Middleburg	5.24%
	20 Fast-Track Families	4.97%	20 Fast-Track Families	5.16%	19 Home Sweet Home	5.15%	19 Home Sweet Home	5.12%
	03 Movers & Shakers	4.12%	25 Country Casuals	4.13%	15 Pools & Patios	5.10%	15 Pools & Patios	5.04%
	25 Country Casuals	4.02%	03 Movers & Shakers	4.05%	14 New Empty Nests	4.54%	14 New Empty Nests	4.51%
	01 Upper Crust	3.52%	01 Upper Crust	3.43%	08 Executive Suites	3.53%	08 Executive Suites	3.50%
	08 Executive Suites	3.28%	23 Greenbelt Sports	3.24%	21 Gray Power	3.41%	21 Gray Power	3.36%
	23 Greenbelt Sports	3.19%	08 Executive Suites	3.19%	02 Blue Blood Estates	3.27%	02 Blue Blood Estates	3.26%
	28 Traditional Times	3.00%	28 Traditional Times	3.07%	12 Brite Lites, Li'l City	3.23%	12 Brite Lites, Li'l City	3.20%

As shown below, the significant groups of locals are a mix of middle aged and older, educated, and affluent residents. Most of these households do not have kids, and residents typically own their own homes and hold management-level positions.

Code	LG	Lifestage Group	Rank	Code	SG	Social Group	Rank	Code	Segment Nickname	Demographic Caption	Predominant Income Class	Predominant Age Class	Predominant Age Range	Predominant Household Composition
8	M1	M1 Affluent Empty Nests	43	4	S1	S1 Elite Suburbs	13	01	Upper Crust	Wealthy, Older w/o Kids	1 Wealthy	3 Older	5 Age 45-64	5 HH w/o Kids
1	Y1	Y1 Midlife Success	1	4	S1	S1 Elite Suburbs	15	03	Movers & Shakers	Wealthy, Middle Age w/o Kids	1 Wealthy	2 Middle Age	4 Age 35-54	5 HH w/o Kids
4	F1	F1 Accumulated Wealth	24	11	T1	T1 Landed Gentry	45	05	Country Squires	Upscale, Middle Age w/ Kids	2 Upscale	2 Middle Age	4 Age 35-54	1 HH w/ Kids
8	M1	M1 Affluent Empty Nests	45	11	T1	T1 Landed Gentry	46	09	Big Fish, Small Pond	Upscale, Older w/o Kids	2 Upscale	3 Older	5 Age 45-64	5 HH w/o Kids
1	Y1	Y1 Midlife Success	3	11	T1	T1 Landed Gentry	47	11	God's Country	Upscale, Middle Age w/o Kids	2 Upscale	2 Middle Age	4 Age 35-54	5 HH w/o Kids
9	M2	M2 Conservative Classics	47	5	S2	S2 The Affluentials	18	14	New Empty Nests	Upper-Mid, Mature w/o Kids	3 Upper-Mid	4 Mature	7 Age 65+	5 HH w/o Kids
1	Y1	Y1 Midlife Success	5	5	S2	S2 The Affluentials	22	19	Home Sweet Home	Upper-Mid, Middle Age w/o Kids	3 Upper-Mid	2 Middle Age	2 Age <55	5 HH w/o Kids
5	F2	F2 Young Accumulators	29	11	T1	T1 Landed Gentry	48	20	Fast-Track Families	Upscale, Middle Age w/ Kids	2 Upscale	2 Middle Age	4 Age 35-54	1 HH w/ Kids
1	Y1	Y1 Midlife Success	6	11	T1	T1 Landed Gentry	49	25	Country Casuals	Upscale, Older w/o Kids	2 Upscale	3 Older	5 Age 45-64	5 HH w/o Kids
9	M2	M2 Conservative Classics	51	9	C2	C2 City Centers	36	27	Middleburg Managers	Upper-Mid, Older w/o Kids	3 Upper-Mid	3 Older	5 Age 45-64	5 HH w/o Kids

| Code	LG	Lifestage Group	Rank	Code	SG	Social Group	Rank	Predominant Tenure Class	Predominant Education Class	Predominant Employment Class	Predominant Race & Ethnicity Class	Predominant Race & Ethnicity Range	IPA Class
8	M1	M1 Affluent Empty Nests	43	4	S1	S1 Elite Suburbs	13	2 Mostly Owners	1 Graduate Plus	1 Management	2 White Mix	2 White, Asian, Mix	1 Elite
1	Y1	Y1 Midlife Success	1	4	S1	S1 Elite Suburbs	15	2 Mostly Owners	1 Graduate Plus	1 Management	2 White Mix	2 White, Asian, Mix	2 High
4	F1	F1 Accumulated Wealth	24	11	T1	T1 Landed Gentry	45	2 Mostly Owners	1 Graduate Plus	1 Management	1 Mostly White	1 White	2 High
8	M1	M1 Affluent Empty Nests	45	11	T1	T1 Landed Gentry	46	1 Homeowners	1 Graduate Plus	1 Management	1 Mostly White	1 White	1 Elite
1	Y1	Y1 Midlife Success	3	11	T1	T1 Landed Gentry	47	2 Mostly Owners	1 Graduate Plus	1 Management	1 Mostly White	1 White	2 High
9	M2	M2 Conservative Classics	47	5	S2	S2 The Affluentials	18	2 Mostly Owners	1 Graduate Plus	6 Mostly Retired	1 Mostly White	1 White	1 Elite
1	Y1	Y1 Midlife Success	5	5	S2	S2 The Affluentials	22	2 Mostly Owners	2 College Grad	2 Professional	3 Melting Pot	5 White, Black, Asian, Mix	3 Above Avg.
5	F2	F2 Young Accumulators	29	11	T1	T1 Landed Gentry	48	2 Mostly Owners	2 College Grad	1 Management	1 Mostly White	1 White	3 Above Avg.
1	Y1	Y1 Midlife Success	6	11	T1	T1 Landed Gentry	49	2 Mostly Owners	2 College Grad	1 Management	1 Mostly White	1 White	2 High
9	M2	M2 Conservative Classics	51	9	C2	C2 City Centers	36	2 Mostly Owners	3 Some College	3 White Collar, Mix	2 White Mix	2 White, Asian, Mix	3 Above Avg.

After isolating segments with the proclivity to either rent or rent/own, the data for this area reveals that this appeals to only 10.75 and 13.07% of the 2014 projected total populations in Chester and Montgomery County respectively.

| PRIZM Household Segments	Chester County, PA		Montgomery County, PA	
	2014 Households	%	2014 Households	%
Households by PRIZM Segment	195,919		306,342	
16 Bohemian Mix	0	0.00%	129	0.04%
22 Young Influentials	4,586	2.34%	9,557	3.12%
24 Up-and-Comers	2,703	1.38%	6,771	2.21%
31 Urban Achievers	0	0.00%	63	0.02%
35 Boomtown Singles	4,242	2.17%	6,509	2.12%
46 Old Glories	495	0.25%	1,796	0.59%
47 City Startups	860	0.44%	2,095	0.68%
48 Young & Rustic	1,875	0.96%	1,212	0.40%
53 Mobility Blues	2,748	1.40%	4,029	1.32%
59 Urban Elders	0	0.00%	47	0.02%
60 Park Bench Seniors	1,479	0.75%	3,353	1.09%
63 Family Thrifts	1,598	0.82%	2,940	0.96%
64 Bedrock America	465	0.24%	47	0.02%
65 Big City Blues	0	0.00%	1,463	0.48%
66 Low-Rise Living	0	0.00%	0	0.00%

AGE

The median age for Chester County is 38.9, and the average age is 38.1. Five years from now, the median age is projected to be 39.8. The median age for Montgomery County is 40.9, and the average age is 39.9. Five years from now, the median age is projected to be 42.0.
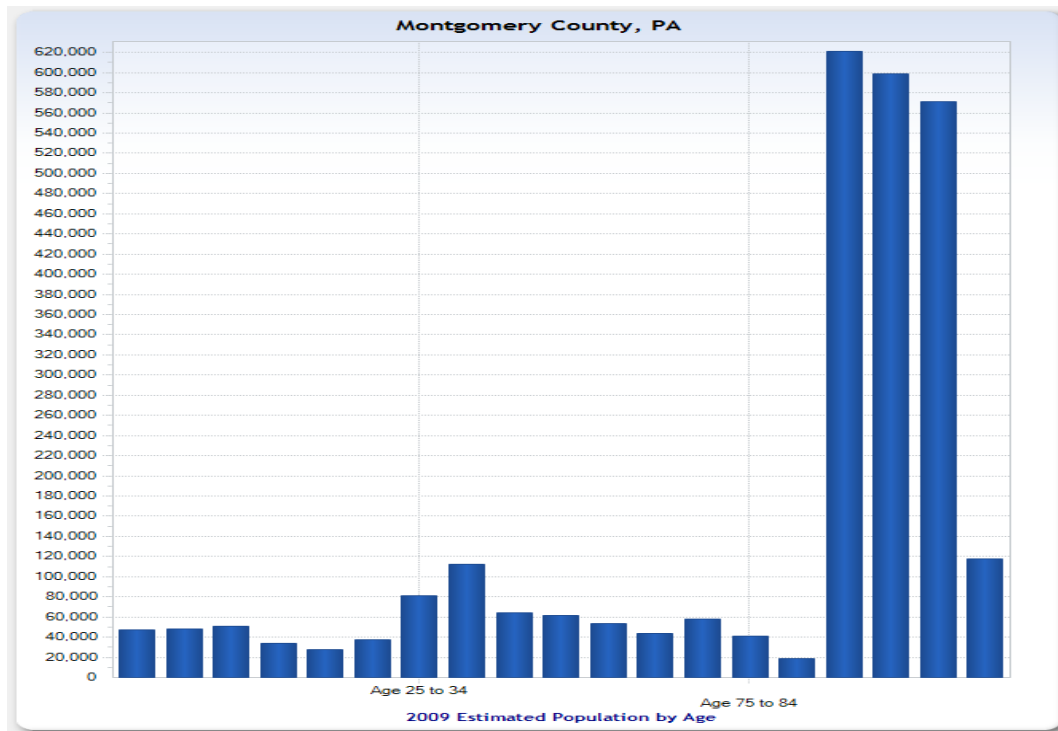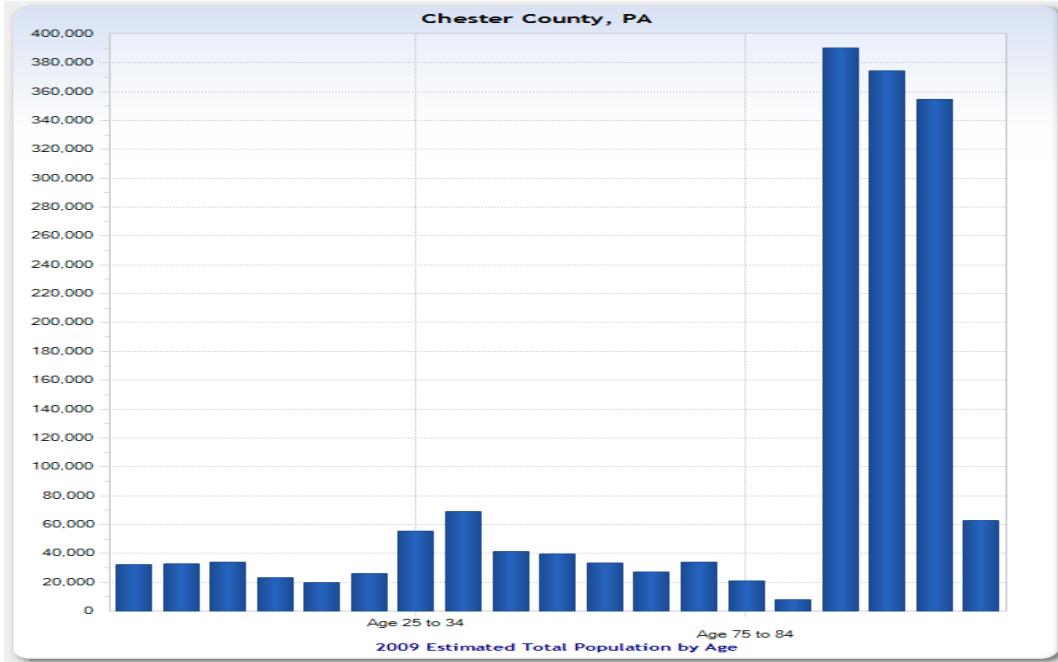
Population by Age and Sex Trend	Chester County, PA		Montgomery	
	2014 Projection	%	2014 Projection	%
Population	531964		795,075	
% Growth	0.0707		2.03%	
Total Population by Age	**531,964**		**795,075**	
Age 0 to 4	34,416	6.47%	47,946	6.03%
Age 5 to 9	33,775	6.35%	47,726	6.00%
Age 10 to 14	34,407	6.47%	49,248	6.19%
Age 15 to 17	24,572	4.62%	34,105	4.29%
Age 18 to 20	21,526	4.05%	28,892	3.63%
Age 21 to 24	29,876	5.62%	42,666	5.37%
Age 25 to 34	59,783	11.24%	82,917	10.43%
Age 35 to 44	62,114	11.68%	95,034	11.95%
Age 45 to 49	38,394	7.22%	59,516	7.49%
Age 50 to 54	42,439	7.98%	63,525	7.99%
Age 55 to 59	39,983	7.52%	60,493	7.61%
Age 60 to 64	33,354	6.27%	51,328	6.46%
Age 65 to 74	44,865	8.43%	70,204	8.83%
Age 75 to 84	22,340	4.20%	40,333	5.07%
Age 85 and over	10,120	1.90%	21,142	2.66%
Age 16 and over	421,108	79.16%	638,627	80.32%
Age 18 and over	404,794	76.09%	616,050	77.48%
Age 21 and over	383,268	72.05%	587,158	73.85%
Age 65 and over	77,325	14.54%	131,679	16.56%
Median Age	39.75		42.05	
Average Age	39.1		40.68	

The population in Chester County is estimated to change from 433,501 to 496,848, resulting in a growth of 14.6% between the year 2000 and the current year. Over the next five years, the population is projected to grow by 7.1%, surpassing national growth rate projections by 2%. The population in Montgomery County is estimated to change from 750,097 to 779,232, resulting in a growth of 3.9% between the year 2000 and the current year. Over the next five years, the population is projected to grow by 2.0%. This far surpasses the national growth rate of .6% as reported by the Census Bureau. Currently the average household size is about 2.5 persons, which may be ideal for 2 bedroom apartments. Interestingly the age segment between 18 though 44 is estimated to become more significant by 2014. The younger population will become a more significant portion of the population by 2014 (20.91% in Chester county; 19.43% in Montgomery county). This may indicate some future demand for rentals in the area, although in Spring City, this population segment seams reside in the more expensive homes, according to city-data.com.
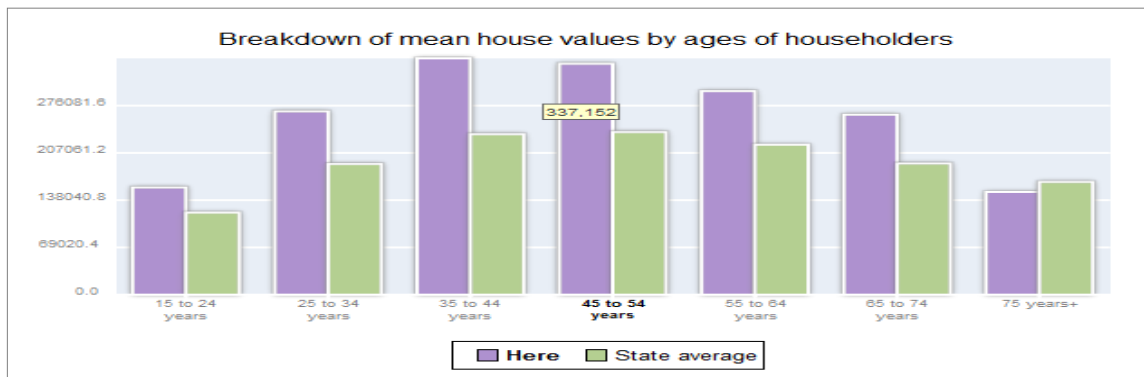
Other factors will aid in determining what type of housing needs will actually exist, and whether this need will be met with the current supply of housing in the area.
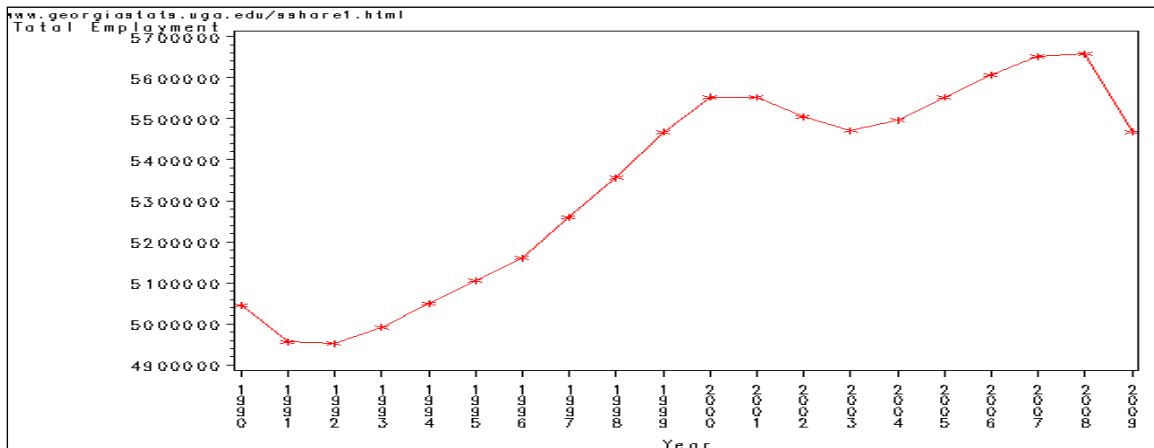
EMPLOYMENT

For Chester County, the labor force is as follows: 0.1% are in the armed forces, 66.7% are employed civilians, 2.5% are unemployed civilians, 30.7% are not in the labor force. The occupational classifications are as follows: 16.8% have occupation type blue collar, 70.8% are white collar, and 12.4% are service & farm workers. 20.0% are in "Management, Business and Financial Operations", 25.2% are in "Professional and Related Occupations", 10.8% are in "Service", and 26.2% are in "Sales and Office". 1.0% are in "Farming, Forestry and Fishing", 7.0% are in "Construction, Extraction, and Maintenance", and 9.8% are in "Production, Transportation, and Material Moving".

Pop Facts:	Chester County, PA		Montgomery County, PA	
2009 Estimated Employed Population Age 16 and Over by Occupation*	260,406		407,207	
Management, Business, and Financial Operations	52,042	19.98%	70,738	17.37%
Professional and Related Occupations	65,643	25.21%	110,331	27.09%
Service	28,208	10.83%	42,624	10.47%
Sales and Office	68,116	26.16%	114,594	28.14%
Farming, Fishing, and Forestry	2,647	1.02%	441	0.11%
Construction, Extraction, and Maintenance	18,229	7.00%	28,063	6.89%
Production, Transportation, and Material Moving	25,521	9.80%	40,416	9.93%

For the civilian employed population age 16 and over in Montgomery County, it is estimated that they are employed in the following occupational categories: 17.4% are in "Management, Business and Financial Operations", 27.1% are in "Professional and Related Occupations", 10.5% are in "Service", and 28.1% are in "Sales and Office".0.1% are in "Farming, Forestry and Fishing", 6.9% are in "Construction, Extraction, and Maintenance", and 9.9% are in "Production, Transportation, and Material Moving".

The following graph demonstrates the current employment statistics for Pennsylvania through 2009. It is apparent that this is declining for the past year but growing overall.

In addition, the unemployment rate in Pennsylvania has been increasing since 2008, with only a slight drop as of September 2010.

Unemployment rate
The percent of the labor force that is unemployed, not seasonally adjusted. More info »

Pennsylvania
8.1%
Sep 2010

Data source: U.S. Bureau of Labor Statistics - Last updated November 24, 2010
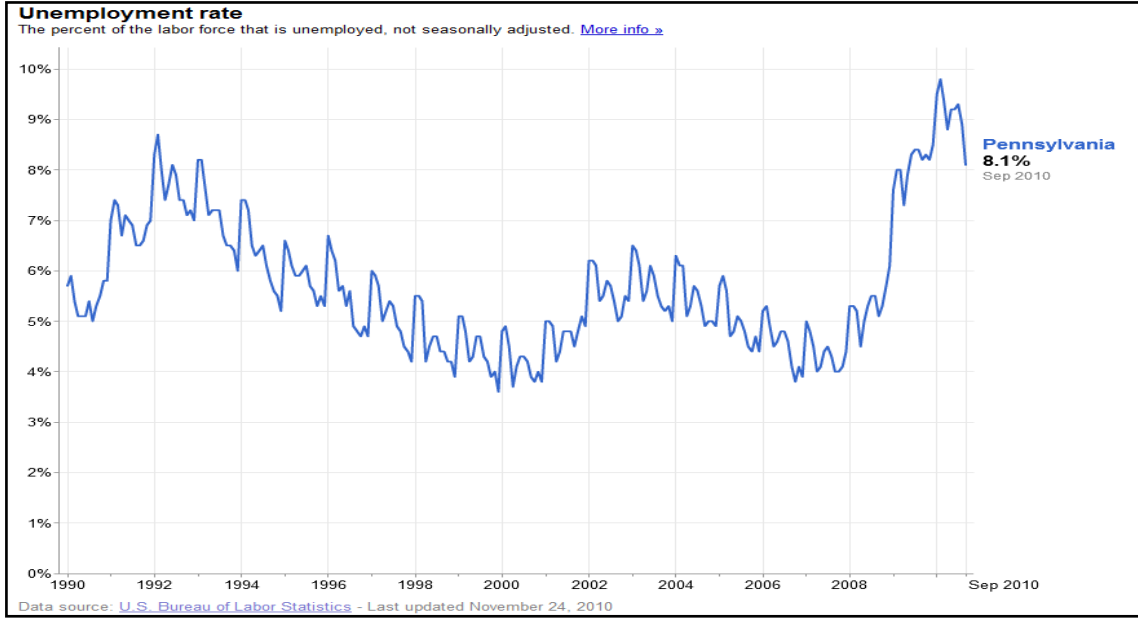
Looking at the industrial breakdown in Pennsylvania, and Chester and Montgomery counties, the location quotients provided by the Bureau of Labor Statistics indicate that field such as Natural Resources and Mining, Manufacturing, Financial activities, and Professional and Business services are strong industries within this region. This data fits the segmentation provided by Nielsen Claritas.

Location Quotients calculated from Quarterly Census of Employment and Wages Data

Industry	Pennsylvania -- Statewide	Chester County, Pennsylvania	Montgomery County, Pennsylvania
Base Industry: Total, all industries	1.00	1.00	1.00
Natural Resources and Mining	0.56	1.74	0.07
Construction	0.85	0.79	0.86
Manufacturing	1.10	0.90	0.97
Trade, Transportation, and Utilities	0.98	0.91	0.90
Information	0.80	0.83	1.20
Financial Activities	0.95	1.54	1.37
Professional and Business Services	0.92	1.32	1.42
Education and Health Services	1.30	0.92	1.03
Leisure and Hospitality	0.86	0.69	0.63
Other Services	0.95	1.02	0.84
Unclassified	0.01	0.01	0.01

Location Quotient: Ratio of analysis-industry employment in the analysis area to base-industry employment in the analysis area divided by the ratio of analysis-industry employment in the base area to base-industry employment in the base area.

http://data.bls.gov

Shift share analysis was performed to better understand job growth in Pennsylvania. The effect of the national growth component on overall Pennsylvania growth is felt most acutely during the peaks and valleys of the business cycle, i.e. during recessions and boom times. Local businesses are very aware of how the national business climate affects them.

	National Growth Component, Jobs	Industrial Mix Component, Percent	Industrial Mix Compone nt, Jobs	Competitive Share Component, Percent	Competitive Share Component, Jobs
Natural Resources and Mining	8,452	-16.5	-7,558	-4.9	-2,245
Information	20,447	-16.5	-18,309	-9.2	-10,262
Other Services	30,084	7.5	12,204	-12.4	-20,237
Public Administration	44,554	-1.1	-2,710	-11.1	-26,781
Construction	42,895	-4.5	-10,450	-13.5	-31,536
Financial Activities	58,396	-7.2	-22,987	-10.4	-33,032
Professional and Business Services	84,982	38.2	176,151	-8.2	-38,026
Leisure and Hospitality	71,827	20.9	81,706	-11.7	-45,821
Manufacturing	177,099	-52.2	-502401	-6.3	-60,534
Trade, Transportation, and Utilities	205,079	-9.6	-107077	-6.6	-73,109
Education and Health Services	184,265	34.9	348,835	-10.8	-107849
	928,080		-52,596		-449432

http://www.georgiastats.uga.edu/sasweb/cgi-bin/broker

The effects of the current economy will be felt by the target market involved in business services. The Industrial Mix Component is found by calculating the percent growth rate for an economic sector at the national level and subtracting from it the national growth component. The highest industrial mix component was 38.2 percent in the Professional and Business Services sector, and it was responsible for 176,151 jobs. If this area's employment were concentrated in these sectors with higher industrial mix components, then the area could expect more employment growth. Strong sectors here include other services, professional and business services, leisure in hospitality and education and health services. The Competitive Share is the remaining employment change that is left over after accounting for the national and industrial mix components. If a sector's competitive share is positive, then the sector has a local advantage in promoting employment growth. Across all sectors, the competitive share component totals to -449,432 jobs. This indicates that this area is not exclusively competitive in securing additional employment.

HOUSEHOLDS & HOUSING

The number of households is estimated to change from 157,905 to 182,453 in Chester County (and increase by 7.4%) and change from 286,098 to 299,597 in Montgomery County (an increase of 4.7% between 2000 and 2010). Over the next five years, the number is expected to increase by 2.3%. The 2010 average household income is estimated to be $108,038 in Chester County and is projected to increase 11.9% over the next five years, from $108,038 to $120,864. The 2010 average household income in Montgomery County is estimated to be $99,825 and is projected to increase 10.7% over the next five years, from $99,825 to $110,493. The current year estimated per capita income for Chester County is $40,328, compared to an estimate of $26,410 for The United States as a whole. The current year estimated per capita income for Montgomery County is $38,845, compared to an estimate of $26,410 for The United States as a whole.

Pop Facts: Household Trend	Chester County, PA						Montgomery County, PA					
	2000 Census	%	2009 Estimate	%	2014 Projection	%	2000 Census	%	2009 Estimate	%	2014 Projection	%
Households by Household Income	158,025		182,453		195,919		286,255		299,597		306,342	
Less than $15,000	11,911	7.54%	10,057	5.51%	9,614	4.91%	22,756	7.95%	17,721	5.91%	16,219	5.29%
$15,000 to $24,999	11,213	7.10%	9,791	5.37%	9,236	4.71%	23,193	8.10%	18,442	6.16%	16,614	5.42%
$25,000 to $34,999	14,069	8.90%	11,473	6.29%	10,527	5.37%	27,251	9.52%	21,560	7.20%	19,327	6.31%
$35,000 to $49,999	21,084	13.34%	19,891	10.90%	18,855	9.62%	41,432	14.47%	36,104	12.05%	32,955	10.76%
$50,000 to $74,999	32,407	20.51%	31,663	17.35%	31,311	15.98%	61,745	21.57%	55,771	18.62%	53,427	17.44%
$75,000 to $99,999	24,098	15.25%	27,156	14.88%	27,721	14.15%	42,693	14.91%	46,365	15.48%	45,530	14.86%
$100,000 to $149,999	24,851	15.73%	36,778	20.16%	41,615	21.24%	38,727	13.53%	56,649	18.91%	62,871	20.52%
$150,000 to $249,999	13,120	8.30%	24,523	13.44%	31,011	15.83%	19,229	6.72%	31,338	10.46%	38,718	12.64%
$250,000 to $499,999	3,821	2.42%	7,663	4.20%	10,780	5.50%	5,798	2.03%	9,793	3.27%	12,974	4.24%
$500,000 or more	1,451	0.92%	3,458	1.90%	5,249	2.68%	3,431	1.20%	5,854	1.95%	7,707	2.52%
Average Household Income	$85,047		$108,038		$120,864		$79,813		$99,825		$110,493	
Median Household Income	$65,996		$82,688		$91,609		$61,538		$75,108		$83,033	
Per Capita Income	$31,627		$40,328		$45,160		$30,898		$38,845		$43,041	

With the median house prices in the northeast just under 240K, the majority of the target market owns their own home (76.9% Chester County; 73.9% Montgomery County).

|	Chester County, PA						Montgomery County, PA					
	2000 Census	%	2009 Estimate	%	2014 Projection	%	2000 Census	%	2009 Estimate	%	2014 Projection	%
Tenure of Occupied Housing Units	157,905		182,453		195,919		286,098		299,597		306,342	
Owner-Occupied	120,428	76.27%	140,444	76.98%	151,270	77.21%	210,233	73.48%	221,598	73.97%	227,246	74.18%
Renter-Occupied	37,477	23.73%	42,009	23.02%	44,649	22.79%	75,865	26.52%	77,999	26.03%	79,096	25.82%

The target population of renters occupies less than 30% of housing. Projections for 2014 show that this will decrease over the next five years. The majority of multifamily residences are between 3 to 19 units, while the total units in unit structures over 2 units still don't amount to the total single unit homes in either county.

Pop Facts:	Chester County, PA		Montgomery County, PA	
2009 Estimated Housing Units by Units in Structure*	188,289		314,161	
1 Unit Attached	30,185	16.03%	59,028	18.79%
1 Unit Detached	119,418	63.42%	177,073	56.36%
2 Units	3,711	1.97%	10,992	3.50%
3 to 19 Units	19,503	10.36%	35,278	11.23%
20 to 49 Units	5,251	2.79%	8,557	2.72%
50 or More Units	3,742	1.99%	20,051	6.38%
Mobile Home or Trailer	6,376	3.39%	3,082	0.98%
Boat, RV, Van, etc.	103	0.05%	100	0.03%

INVENTORY & DEMAND

PHILADELPHIA

Properties did not enjoy the spring apartment demand surge observed in other Eastern Seaboard markets. Tenants absorbed only 164 units April to June, holding average occupancy steady at 93.7%. Rent levels rose as owners sought to recoup discounts granted since mid-2008. Average face rent advanced 0.7% to $1,025. Reduced concessions sent effective rents soaring to $986, returning the metric to its September 2008 series high. Philadelphia's economic recovery has been sluggish and even appeared to take a turn for the worse during the summer months. Absorption trends were disappointing as tenants leased about one-third fewer than the 11-year second quarter average; less than one-half the number absorbed in the year-earlier quarter; and less than one-half of the seasonally-weaker 1Q10 net. Preliminary 3Q10 Reis data show average asking rents rising $10 quarter-to-quarter to $1,035.
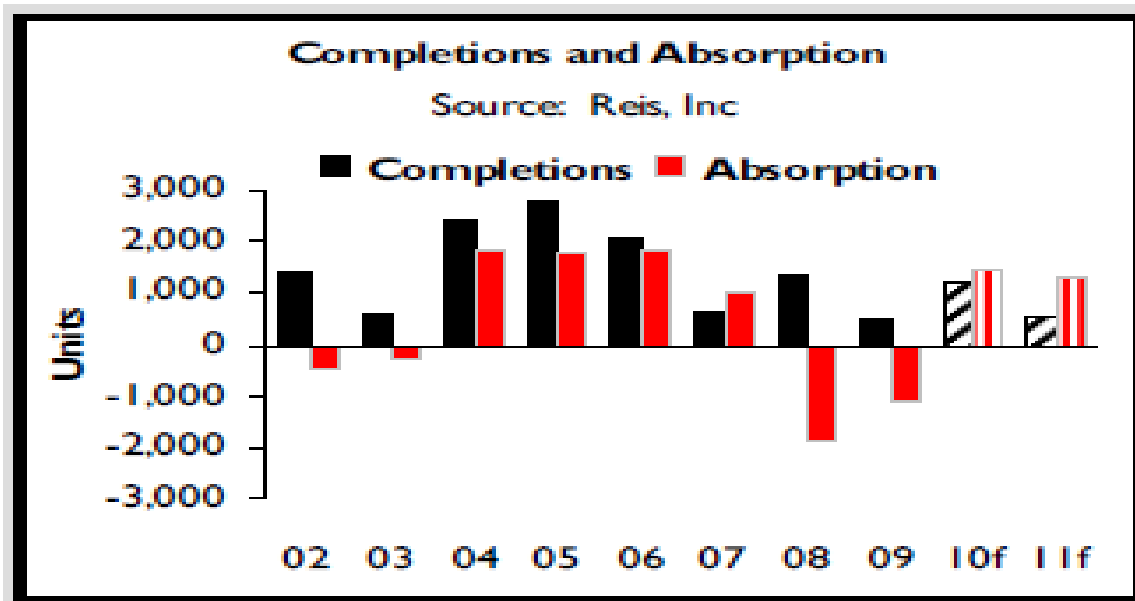
Supply pressures will build moderately in 2H10 when developers are expected to put the finishing touches on 902 new units. Deliveries will trend down after year end. Reis expects that only about 1,242 units will be completed in 2011 and 2012. Seven properties located in Center City, the Liberties and university City (Univ. of Penn) built since 2005 were 95.8% occupied in June at rents averaging $1,924. The lowest occupancy was 93.4% and only two locations reported occupancy below 94%. A 388-unit loft project in Valley Forge, potential threat found in prior Pennhurst studies, remained over 50% vacant about two years after delivery.

SPRING CITY, CHESTER & MONTGOMERY COUNTY

Most of the dwellings (77.0% in Chester County and 74.0% in Montgomery County) are estimated to be Owner Occupied for the current year. The majority of housing units in these areas (17.6%) are estimated to have been built between 1999 and 2008.
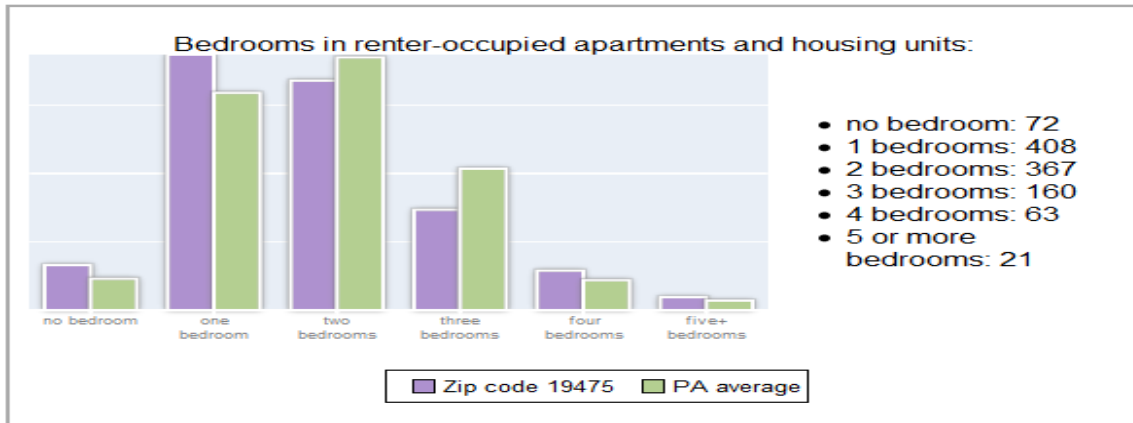
Comparing the graph above and the graph below, the city-dat.com analysis shows that renters predominately occupy one or two bedroom units and perhaps transition to home ownership when lifestyle changes require a third bedroom.
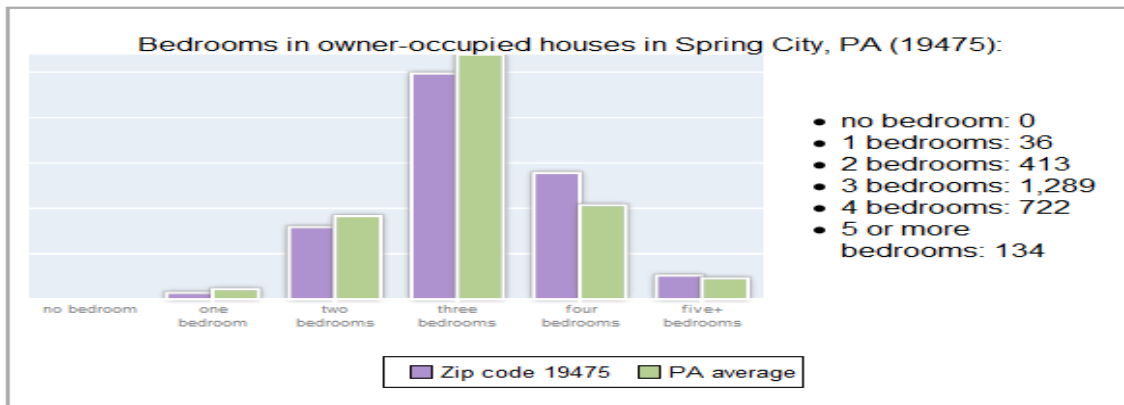
As it may not be cost effective to compete with three bedroom homes, new rental units should include a minimum of 2 bedrooms and or perhaps a bonus room. With typical rents in nearby Spring City of less than $600, and home prices at a relative low, further financial analysis will be required to determine the feasibility of executing such competitive units.
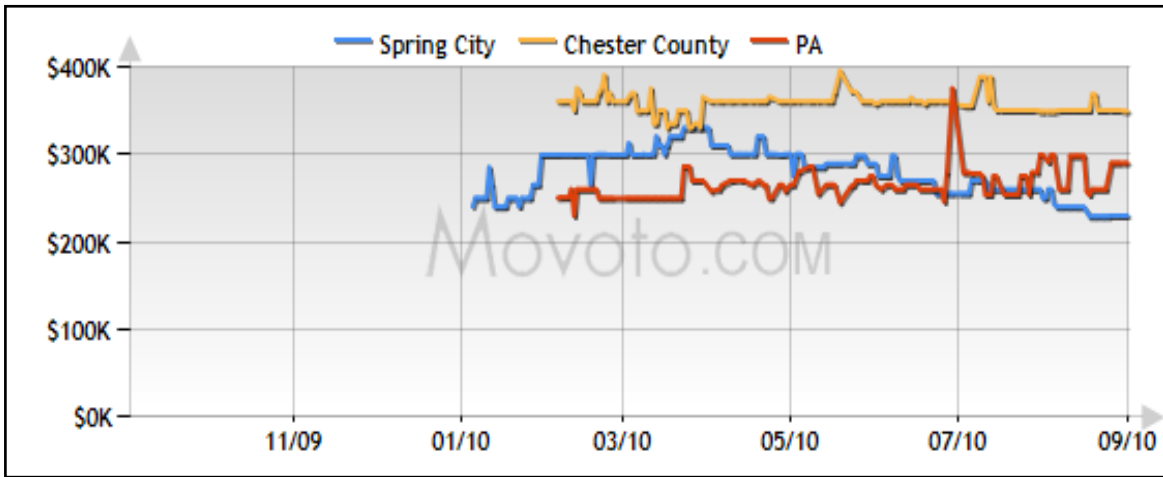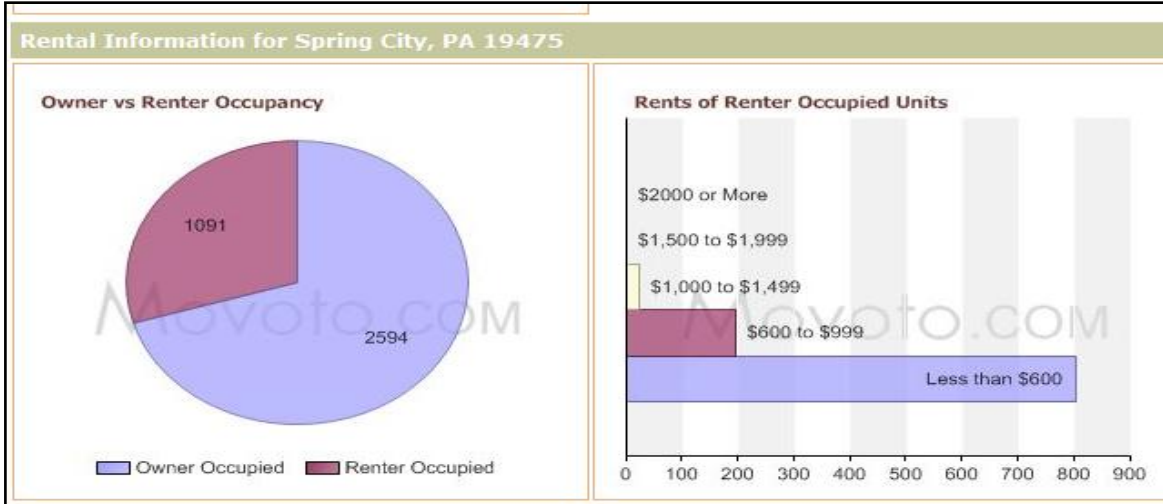
Movoto.com

OTHER INFLUENTIAL FACTORS

There are other major influences on the success of a multifamily project at Pennhurst. First, there are several development plans for the 422 corridor. The Trend assumes that 21,000 new housing units will be constructed during the 21-year period between 2009 and 2030. In addition there is a proposed plan to expand transportation modes and river access. This will sustain the increased population and increase opportunities for retail, office, and residential development. For boroughs and other existing centers with current or prospective R6 stations, Transit oriented Development would infill districts and neighborhoods with additional development on vacant or underutilized sites to provide the required density to support rail

transit service. If successful, there will be significant competition for Pennhurst, however given the historic nature of the site, this may be an advantage with proper branding and can lure additional visitors and tourists.

Second, there are major retail changes within the area. According to Colliers.com, Retail vacancy in Chester posted a gain and Delaware and Montgomery had declines.

UPDATE New Supply, Absorption and Vacancy Rates					
SALES ACTIVITY					
PROPERTY ADDRESS	LOCATION	SALES DATE	SIZE SF	SALES PRICE / SF	TYPE
Lakeview Shopping Centre	Montgomery County, PA	Feb-10	183,312	$128.20	Community Center
Town Square Plaza	Berks County, PA	Jan-10	127,636	$147.72	Neighborhood Center
Bensalem Plaza	Bucks County, PA	Dec-09	67,215	$202.34	Neighborhood Center
3500 Aramingo Avenue	Philadelphia County, PA	Feb-10	57,321	$108.16	Freestanding
The Shoppes at Hellertown	Lehigh County, PA	Apr-10	55,480	$126.89	Neighborhood Center
Progress Plaza	Dauphin County, PA	Apr-10	49,250	$39.80	Neighborhood Center
2365 E Lincoln Highway	Bucks County, PA	Mar-10	25,283	$106.79	Freestanding
1409 Almonesson Road	Gloucester County, NJ	Apr-10	25,068	$131.64	Freestanding

Overall, activity was highlighted by several large deals by hhgregg, Sixth Avenue Electronics, Foreman Mills and Big Lots. Douglas Town Center in western Montgomery County, a 90,000-squarefoot, Giant-anchored neighborhood center, opened in April. Wegmans Food Markets opened a 140,000-square-foot supermarket at the troubled Uptown Worthington complex in Malvern during the third quarter. Wegmans is also planning a 107,000-square-foot store in King of Prussia. Costco purchased 15 acres in Warminster, Bucks County, for a new store. These changes could bring about more jobs, but also competition from mix-used purposes of the site. In addition, this new workforce could change the local demographic and in such a way to necessitate more rental housing.

SUMMARY

A comprehensive look at the market analysis data demonstrates that there would be demand for rental housing growth although this is mostly based on future expectations of land-use and retail development. The current market does not support aggressive rental growth around Pennhurst campus. The significant groups of locals are a mix of middle aged and older, educated, and affluent residents. Most of these households do not have kids, and residents typically own their own homes and hold management-level positions. The data confirms that the business sector is strong in Pennsylvania, although not recession proof. Growth in this region is essentially tied to national and industry trends. In order to optimize opportunities for success, Pennhurst campus should seek to obtain access and necessary land use permits to make the site more accessible to major transportation modes. An aggressive branding effort would be needed to shed stigma of the campus in order to create a mixed-used destination that appeals to the growing younger population, potential lower-income retail and construction workforce, as well as the affluent older population.

♦ SENIOR HOUSING

By Ziqi Wu

EXECUTIVE SUMMARY

As a community of conscience with sprawling landscapes and dramatic views, and proximity to the Philadelphia metropolitan area, Pennhurst is an ideal site for developing senior living facilities. Based on a target market of Pennsylvanians aged 65 and older of all income levels originating from Philadelphia Metropolitan Region (primary market) and Chester and Montgomery counties (secondary market), a market analysis was conducted. Data sources largely include senior housing statistics from the National Investment Center for Seniors Housing and Care and demographic data from Claritas. The research is broken into target market, market areas, demand assessment, supply Assessment, psychographics and lifestyles, ethnicity, evaluation of senior housing segments and a comparison of senior living real estate sector to other industries.

The rapidly aging populations of both the primary and secondary market indicates strong demand for senior services and housing currently and for the future. The occupancy rates of senior living facilities over the last 10 quarters were consistent with general declines in occupancy in the rest of the country and are showing signs of bottoming. The reasons behind the decline can be explained by the employment and median home prices data indicate that a small proportion of seniors are holding off moving into senior housing because of low home prices and their adult children losing jobs. The income and net worth data demonstrates that there is a rather even distribution of age eligible households in low, middle and high wealth segments. Despite the declining occupancy rates, rental yields for the region fares comparatively better than the other metropolitan regions in the country. Rent growth is also positive for all senior housing sectors, but particularly for skilled nursing care. In assessing the existing supply of senior housing in the primary and secondary markets, the analysis revealed that the building condition of most facilities were inadequate, indicating a strong advantage for new senior living developments. There is strong market penetration for independent living, skilled nursing and entry-fee continuing care retirement communities, coupled with relatively strong absorption rates. The risk of overbuilding for these three sectors ranges from minimal to low, given that there has not been much construction activity for the senior living industry. The study also revealed important lifestyle trends and psychographics for the primary market. Psychographic segments of PRIZM segments M1 and M2 were identified as the most suitable target segments for high-end senior housing. Also, swimming and walking were identified as the two most popular activities for seniors, suggesting these as amenities that should be incorporated into any senior housing development to increase satisfaction levels. Although the majority of the target population is White, there is a need to respond to the cultural needs of minorities, which were identified to be Black and Asian. Comparison of occupancy, rental growth and real estate return data across the different property sectors demonstrated that senior living developments is a much more worthwhile and secure investment than any other asset type. This finding

also indicates that senior living developments should be given a higher priority over other types of property developments in the consideration of a mixed-use development at Pennhurst.

The market analysis concluded with that independent living, skilled nursing and continuing care retirement communities were the most appropriate property types for development currently at the Pennhurst site. Recommendations on unit mixtures and numbers of units were made based on industry guidelines, which were modified to fit the market data. Based on a preliminary feasibility analysis by the Community Design Collaborative, some buildings at the Pennhurst site can be reused for senior housing while there might be a need for building additions to meet industry standards. A further site assessment specific to the senior housing requirements is recommended to determine the site's feasibility for adaptive reuse. Generations of Hope, the Green House Project and Kendal were identified as suitable partners to developing senior housing at the Pennhurst site.

INTRODUCTION

The purpose of this report is to analyze the senior housing market for the Pennhurst Campus located in Chester County, Pennsylvania. The Pennhurst Campus comprises approximately 636,000 square feet of gross building area situated in 17 buildings on a 112-acre site. The proposal will determine whether senior housing (and the type of senior housing) will be a viable housing type in Pennhurst Campus' redevelopment. The following segments of senior housing segments will be analyzed in the market study:

Table 1. The Four Segments of Senior Housing

Independent Living (IL)	ILs offer congregate living to independent older adults. A major benefit of independent living is socialization. Residents are fairly healthy and do not receive care from the community. Independent living offers the resident and their families a peace of mind.
Assisted Living (AL)	AL includes provision of support for activities of daily living (ADLs) such as dressing, grooming, and help with taking medication.
Skilled Nursing Care (NC)	NC provides support with ADLs as well as skilled care needs (e.g., wound care, medications requiring a nurse). It is meant to be a rehabilitative function instead of long-term care. Some specialized form of care such as Alzheimer's care is also typically provided.
Continuing Care Retirement Community (CCRC)	CCRCs provide a continuum of care such as independent living, assisted living, skilled nursing and memory care. There are two types of CCRCs – one offering different services on a pay-as-you-go basis. The other type is entry-fee; once seniors pay the entry fee, they are entitled to use any of the CCRC services at no additional cost.

To determine the demand for senior living, demographic variables such as age, income, and net worth of individuals will be studied. Although the market study intends to be inclusive of all wealth levels so that middle and low wealth seniors would also be catered to, the analysis will also discuss the market opportunities should the proposed development is to rely on private pay individuals alone. Lifestyle indicators will be also be analyzed to understand the preferences of seniors.

TARGET MARKET

The target market for the proposed senior housing at the Pennhurst Campus will be Pennsylvanians aged 65 and older (which will be referred to as seniors) and segmented into high wealth individuals, medium wealth and low wealth (Medicaid eligible) individuals. Wealthy individuals will be defined as individuals with household income above $75,000, have a net worth of more than $250,000 and home median prices above $200,000. Medium wealth individuals will be defined as individuals with household income above $20,000 and net worth above $25,000. Low wealth individuals will be defined as individuals with an income level below $20,000 and net worth below $25,000. For simplicity, the low wealth individuals will also be

assumed to be Medicaid eligible.[28] The market study intends to be inclusive of all wealth levels so that developers would be able to use the market data in a variety of ways. For example, developers that are targeting a diversity of wealth levels (e.g., Generations of Hope) will be able to broaden their market to cover all wealth segments, while high-end senior living developers would be able to focus on high wealth individuals.

The seniors would most likely be widowed[29] or empty nester baby boomers seeking to downsize their houses and move into independent living units, or assisted living as they are individuals requiring some form of assistance with activities of daily living (ADLs).[30] Others may require skilled nursing[31] or memory care[32] due to illness or dementia. Some of the target market may also be attracted Continuing Retirement Care communities as they prefer to be able to stay in the same place as they transition from one form of senior housing to another.

MARKET AREA

The market analysis for senior living will focus on the primary market, the Philadelphia-Camden-Wilmington Metropolitan Statistical Area (hereafter the Philadelphia Region) and secondary markets, the surrounding Chester and Montgomery Counties around Pennhurst because the target senior populations tend not to originate from the local vicinity (Brett and Schmitz, 2009).[33] The Philadelphia Region was chosen as a compromise because the percentage of older adults in Pennsylvania who choose to remain in the state and close to home as they age is significantly higher than neighboring states.

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[28] For simplicity, the income threshold for Medicaid eligibility will assumed to be individuals with household incomes less than $20,000 per year. The actual Medicaid guidelines requires individuals to be aged 65 and over with and income of less than 76% of the Federal Poverty Level (varies depending on number of family members in household) and their assets cannot exceed $2,000.

[29] Couples in senior living housing are relatively rare—you would be fortunate to get more than 30-35% of couples during your initial occupancy (Moore, 2009, p. 85).

[30] ADL is a term used to refer to daily self-care activities within and individual's place of residence or in outdoor environments such as eating, bathing, dressing, taking medication and grooming. Individuals requiring assistance with ADLs tend to enlist the help of home care services or live in an assisted living facility.

[31] Skilled nursing includes assistance with ADLs, provision of skilled care needs (e.g., wound care, medications requiring a nurse, treatments requiring a nurse, therapy). Individuals requiring skilled nursing are either under rehabilitation or require long-term care.

[32] Memory care is a program targeted at individuals with Alzheimer's disease and is usually provided for in a facility much like assisted living but in a secured environment.

[33] In metropolitan suburbs, developers of senior living communities will certainly draw buyers from nearby communities, but the majority of their customers tend to come from beyond the local area to be closer to family members (Brett and Schmitz, 2009).

Fig. 1 Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metropolitan Statistical Area

(Source: NIC MAP ® Data and Analysis Service)

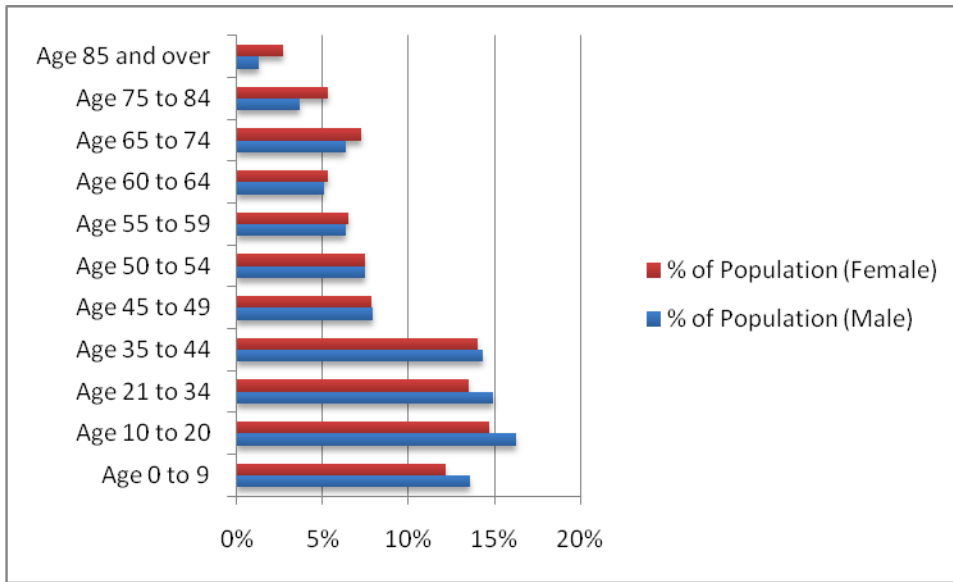**Fig. 2 Chester and Montgomery Counties, PA. (Claritas)**
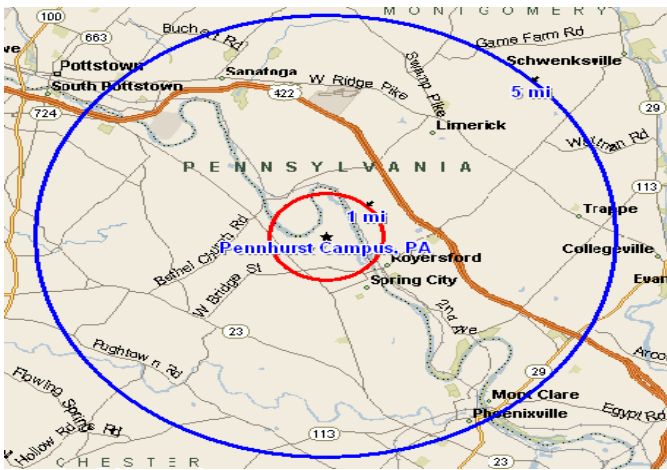
DEMAND ASSESSMENT

LOCAL AND REGIONAL AGE DEMOGRAPHIC TRENDS

The average entry age into senior living today is older than 80 (Moore, 2009, p. 32). Examining the age structure of the target population will help to determine the demand for senior living at Pennhurst. Compared to the general population in the country, the Philadelphia Region has one of the oldest populations in the United States, with a median age nearly 40 years old and close to 14% of the population over the age of 65. Chester and Montgomery Counties have an even higher average age. The percentage of people aged 65 and over, particularly for males, at the one-mile radius ring around Pennhurst is most probably due to the presence of a Veterans Hospital there.

Fig. 3 Philadelphia Region Age Demographics (by Gender)

(Source: Claritas)

Table 2. Age of Current Population by Distance from Pennhurst Campus

Age Range	Philadelphia- Camden- Wilmington, PA-JJ-DE- MD Metropolitan Statistical Area		Chester and Montgomery Counties, PA		0-1 mile from Pennhurst Campus	
2009 Estimated Population by Age	**5,852,669**	**-**	**1,276,080**	**-**	**1,239**	**-**
Age 0 to 9	751889	12.85%	160697	12.60%	97	7.82%
Age 10-20	904452	15.45%	189759	14.87%	136	10.98%
Age 21-34	1007489	17.22%	200038	15.67%	157	12.68%
Age 35 to 44	827,363	14.14%	181,034	14.19%	144	11.62%
Age 45 to 49	461,380	7.88%	105,362	8.26%	89	7.18%
Age 50 to 54	437,332	7.47%	101,261	7.94%	99	7.99%
Age 55 to 59	375,803	6.42%	86,627	6.79%	92	7.43%
Age 60 to 64	304,761	5.21%	71,153	5.58%	76	6.13%
Age 65 to 74	398,558	6.81%	91,416	7.16%	149	12.03%
Age 75 to 84	265,488	4.54%	61,810	4.84%	136	10.98%
Age 85 and over	118,154	2.02%	26,923	2.11%	64	5.17%
Age 20 and under	1656341	28.30%	350456	27.46%	233	18.81%
Age 21 - 64	3414128	58.34%	745475	58.42%	657	53.02%
Age 65 and over	782200	13.36%	180149	14.12%	349	28.17%
2009 Estimated Median Age	38.35	-	40.17	-	49.8	-
Males (65+)	319,798	11.30%	76,424	12.24%	265	35.47%
Females (65+)	462,402	15.30%	103,725	15.92%	84	17.07%
Males Median Age	36.86	-	38	-	52.04	-
Females Median Age	29.64	-	40.36	-	41.48	-

The aging situation in the Philadelphia Region will only accelerate over time as more Pennsylvanian baby boomers begin to reach retirement age (~ 65 years). As it stands, Pennsylvania is already one of the oldest states in the nation and is currently ranked third in the nation in the percentage of people aged 65 and older (representing 15.6% of the state population). Only the states of Florida and West Virginia have a higher percentage. By 2020, for the first time in history, the proportion of Pennsylvanians under the age of 15 will equal the proportion of Pennsylvanians over the age of 65 (see Fig. 4).

Fig 4. Graph depicting outpacing of Pennsylvanians aged 15 and under by Pennsylvanians aged 65 and over (Pennsylvania Department of Aging, 2008)
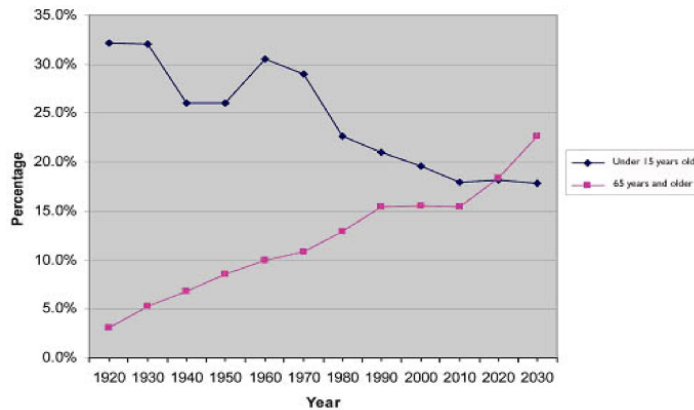
Pennsylvania is currently the fourth highest in the United States in the proportion of the "oldest-old" or people age 85 years and older (encompassing 1.9% of the population), and fifth in the nation for the number of people age 100 years and older. The number of older adults aged 85 and older in Pennsylvania will increase by 52% between the years 2000 and 2020 (Pennsylvania Department of Aging, 2008).

The rapid increase in the proportion of older adults in Pennsylvania is driven by increases in life span and reduction in number of births. Medical advances and healthier lifestyles will prolong the lives of Pennsylvanians by delaying the onset of diseases and improving the quality of lives as they age. The population aging data indicates that the demand for older adult services to significantly increase in the next few years and a strong market for senior housing.

DEMAND BASED ON OCCUPANCY RATES

Fig. 5 Senior Living Stabilized Occupancy Rates in the Philadelphia Region (Source: NIC MAP ® Data and Analysis Service)
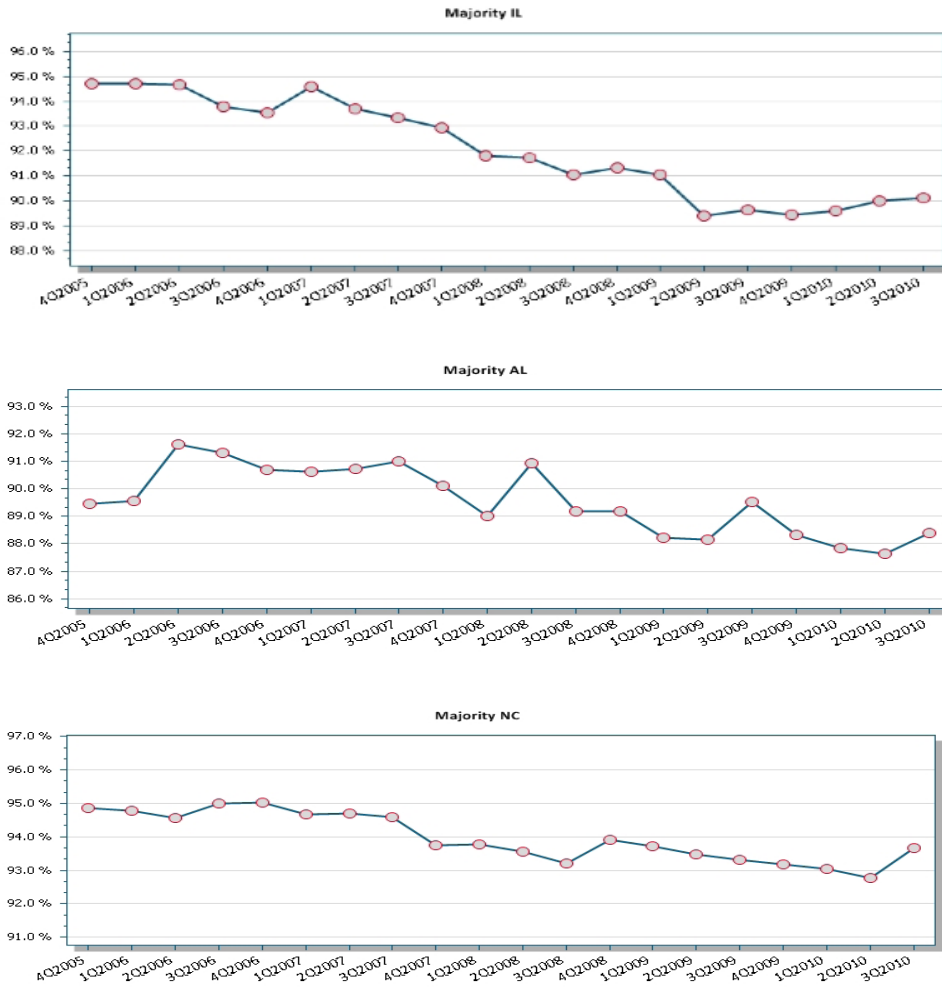
Although the age demographic data would in theory, translate into strong demand for senior living services, the Philadelphia Region experienced a significant decline in occupancy levels across Independent Living, Assisted Living and Skilled Nursing Care over the last 3 years.[34] This downward trend is due to a decline in housing prices and loss of jobs in the region. Many seniors are postponing moving into senior housing as they are unable to finance their stay in a senior housing community either because their home asset values has become too low or they are unwilling to sell their homes when real estate prices are at the bottom of the market. The Income, Household, Net Worth and Median Home Value data and analysis below will provide further evidence to support this downward trend.

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[34] Since the last quarter, there has been a slight increase in occupancy rates in the third quarter of 2010 according to the NIC MAP ® Data and Analysis Service.

INCOME, HOME VALUES AND NET WORTH

The 65 and over population in our primary market, the Philadelphia Metropolitan region, is mostly comprised of middle income (53%), followed by low income (32%) and then high income (20%). The proportion of lower income seniors is projected to decrease to 22%, while middle-income earners will increase to 53%.[35] In terms of net worth, the population is more or less evenly distributed into low, middle and high net worth segments. In our secondary market, the proportion of high net worth individuals is significantly higher. The data suggests that there is strong potential for developing mid- to high-end senior housing given that there will be a total of 354,356 middle and high income households at Pennhurst although there is also a large market for low-income seniors who are Medicaid eligible (154,926 households) for low-income senior housing developments.

Table 3. Income levels by Age in Philadelphia Region

Income Levels (2009)	No. of households Householder Age 45-64	% of households Householder Age 45-64	No. of households Householder Age 65+	% of households Householder Age 65+
Low Income (<$20K)	53560	7%	154926	30%
Middle Income ($20-75K)	277169	38%	257723	51%
High Income (>$75K)	368932	51%	96633	19%
Income Levels (2014 - Projected)	Age 45-64	% of 45-64 Age Group	65+	% of 65+ Age Group
Low Income (<$20K)	69666	10%	120641	22%
Middle Income ($20-75K)	250517	34%	284456	53%
High Income (>$75K)	412734	56%	96633	18%

(Source: Claritas)

Fig. 6 Income Distribution by Age in Philadelphia Region (2009)
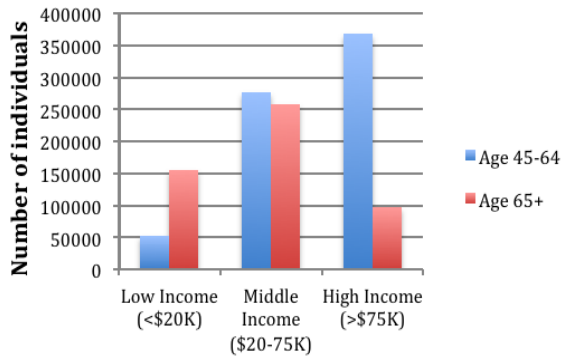
Fig. 7 Income Distribution by Age in Philadelphia Region (2014 – Projected)
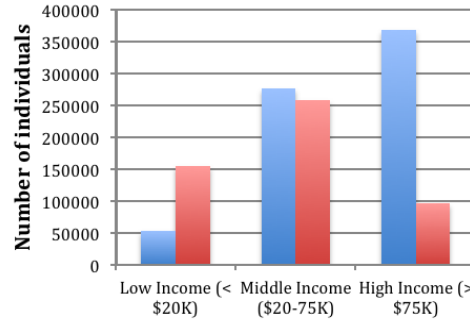
(Source: *Claritas*)

(Source: *Claritas*)

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[35] The money income of senior citizens will usually fall well below the overall average, but many retirees have substantial savings and investment assets, with little debt. Income of seniors is less of a predictor for the affordability for senior housing than net worth as seniors tend to pay for their rents using savings, private insurance, government funding (i.e., Medicare or Medicaid), or have the costs borne by their children.

Table 4. Net Worth Levels in Chester and Montgomery Counties (2009 and 2014-Projected)

	Philadelphia Region				Chester and Montgomery Counties			
	2009		2014 (Projected)		2009		2014 (Projected)	
Net Worth	No. of Households	% of Total Population	No. of Households	% of Total Population	No. of Households	% of Total Population	No. of Households	% of Total Population
Low Net Worth (Less than $25,000)	853,339	38%	840,463	37%	158,556	33%	158,936	32%
Middle Net Worth ($25,000-$250,000)	664,612	30%	654,302	29%	140,807	29%	140,195	28%
High Net Worth (>$250,000)	699,819	32%	767,796	34%	182,687	38%	203,130	40%
Total	2,217,770	100%	2,262,561	100%	482,050	100%	502,261	100%
Estimated Average Household Net Worth		$360,408		$407,257		$457,031		$512,773
Estimated Median Household Net Worth		$81,704		$94,349		$128,686		$147,021

(Source: Claritas)

Fig. 7 Household Net Worth Distribution (2009 and 2014-Projected)
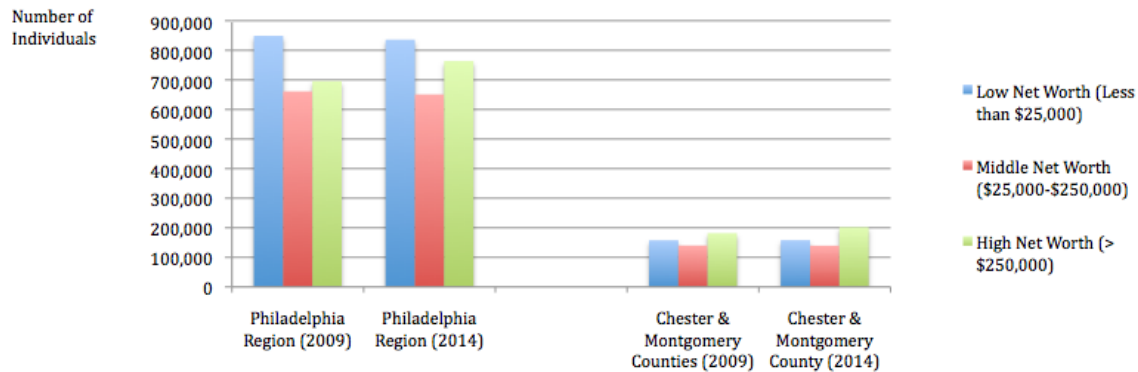
(Source: Claritas)

Table 5. Median Income and Median Home Value for 45-64 and 75+ Aged Households

		Philadelphia Region	MAP31[36]
45-64 Age Households	Proj. Annual Growth for next 5 years (%)	.9%	1.7%
	Percent of all Households	40.9%	39.5%
	Median Income	$77,029	$75,047
75+ Age Households	Proj. Annual Growth for next 5 years (%)	.3%	1.2%
	Percent of all Households	10.6% (614,800 individuals)	9.3%
	Median Income	$31,180	$32,411
Median Home Value (3Q2010)		$209,800	$143,550 (Top 100)
Home Ownership Rates 2009		70.6%	67.4%
Annual Change in Individual Home Prices		-3.1%	-4.9% (USA)
Median Household Net Worth		$81,704	N.A.

(Source: NIC MAP ® Data and Analysis Service, 3rd Quarter, 2010; Claritas; National Association of Realtors, Federal Housing Finance Administration)

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[36] MAP 31 is a term used by NIC MAP ® Data and Analysis Service referring to the aggregate of the data collected from the 31 largest metropolitan statistical areas in the continental U.S. as ranked by the U.S. Census Bureau's Table 3a, "Population in Metropolitan and Micropolitan Statistical Areas Ranked by 2000 Population for the United States and Puerto Rico PHC-T-29," released 12-30-03.

Median Home value is an important indicator to assess demand and affordability for senior housing since many senior homeowners need to sell their homes to finance the costs of living in senior housing facilities. Although Table 5 indicates that the median home value for homes in the Philadelphia region is higher than the top 100 regions in the US, the decline in home prices has led to many seniors holding off selling their home assets in anticipation for home prices to increase (see Fig 8).

Fig. 8 MAP31 IL Occupancy and Residential House Price Trends
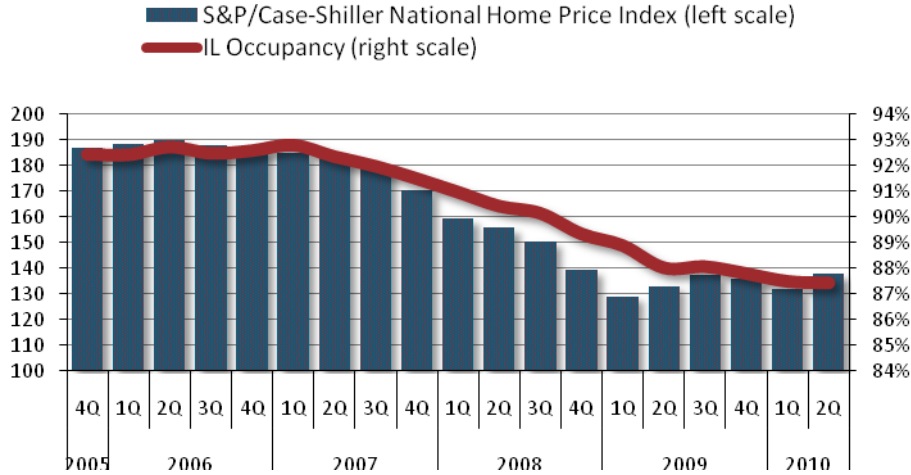
(Sources: S&P Case Shiller and NIC MAP ® Data and Analysis Service in Kramer (2010))

Another contributor to the declining occupancy rates could be the poor income and employment data for 45-64 Age households since 20-35% of residents have adult children funding their stay in senior homes (Kramer, p.c.). Fig. 9 indicates a correlation between employment rates and AL occupancy.

Fig. 9 MAP31 Assisted Living Occupancy and Change in Employment
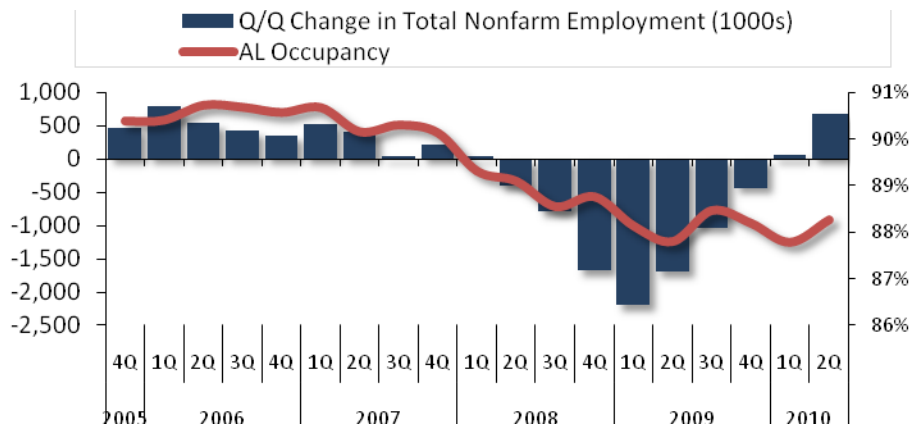
(Sources: Bureau of Labor Statistics, ® Data and Analysis Service in Kramer (2010))

As Table 5 indicates, the median income for the 45-64 age group is slightly higher than the average of the top 31 metropolitan region, indicating that their children are more likely than the national average to be able to afford paying for their parents to live in senior housing. However, high unemployment rates, job losses and little prospect for employment growth in the region could have resulted in adult children holding off senior housing or taking their parents out of senior housing to reduce costs. In September 2010, unemployment levels in the Philadelphia region is between 8.0-8.9% with negligible employment growth between September 2009 to September 2010 (See Fig. 10). Nonetheless, Montgomery and Chester have two of the lowest employment rates of the entire state and highest median incomes, suggesting that compared to the state as a whole, the occupancy rates at a senior living development at Pennhurst will relatively less affected by the poor employment outlook.

Fig. 10 Unemployment Rate and Employment Growth for Pennsylvania in 2010 (by County)
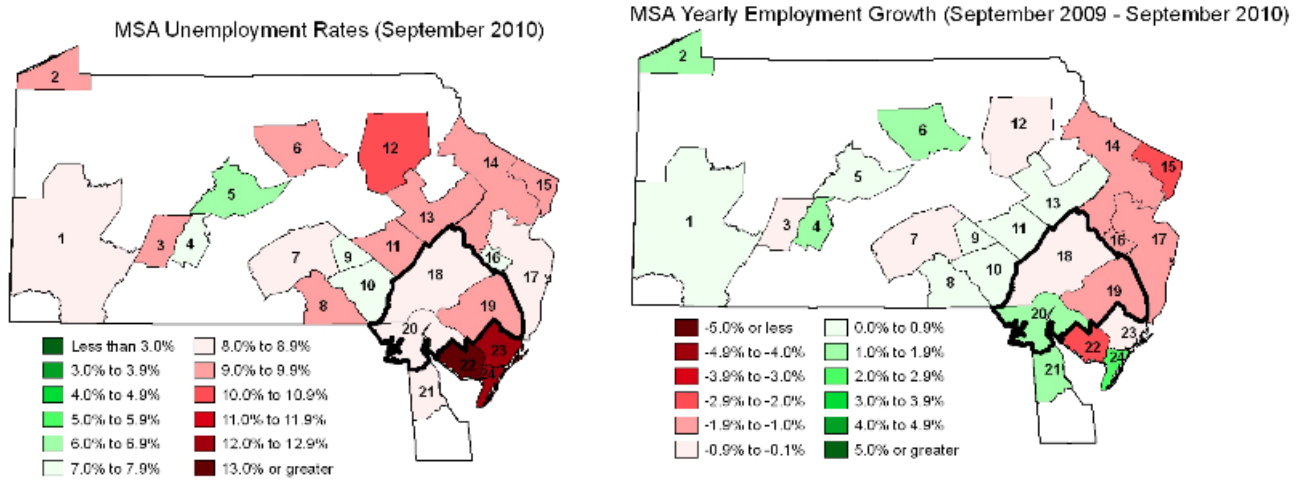
(Source: Regional Economic News- Metropolitan Area Employment, September 2010)

UNIT RENTAL COSTS

Table 6. Average Unit Monthly/Daily Rent for All Property Types, Philadelphia Region

Region	IL		AL		NC		CCRC (Rental)		CCRC (Entrance Fee)	
	Average Unit Monthly Rent	Rent Growth (3Q2010)	Average Unit Monthly Rent	Rent Growth (3Q2010)	Average Unit Daily Rent	Rent Growth (3Q2010)	Average Unit Monthly Rent	Rent Growth (3Q2010)	Average Unit Monthly Rent	Rent Growth (3Q2010)
Philadelphia Region	$3,081	1.8%	$4,203	3.2%	$291	3.9%	$1,600-$2,700	0	$2,700-$3,800	0.8%
Chester	$3,072	-1.2%	$4,061	1.9%	291	4.0%	-	-	-	-
Montgomery	$3,714	3.0%	$4,496	1.6%	292	5.1%	-	-	-	-
MAP31	$2,688	-	$3,518	-	264	-	-	-	-	-

(Source: NIC MAP ® Data and Analysis Service, 3rd Quarter, 2010)

Table 7. Average CCRC Entrance Fees by Unit Type, Philadelphia Region

CCRC (Entrance Fee)	
Unit Type	Average Entrance Fee
Studio	$90,206
1 Bedroom	$151,574
2 Bedroom	$235,216
3+ Bedrooms	$326,880

(Source: NIC MAP ® Data and Analysis Service, 3rd Quarter, 2010)

Fig 11. Rent Growth by Property Type in Philadelphia Region
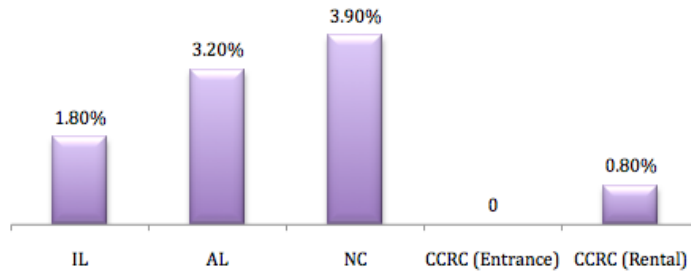
(Source: NIC MAP ® Data and Analysis Service, 3rd Quarter, 2010)

According to the NIC MAP ® Data and Analysis Service 3Q2010 data, the estimated costs of renting IL units in the Philadelphia Region is $3,081 per month and about $400 more than the top 31 metropolitan regions (MAP31). The rent growth for IL is good at 1.8%, although it is slower than its 3.4% pace in 3Q09. The estimated costs of renting AL units in the Philadelphia Region is $$4,203 per month, and is about $700 more than MAP31. The rent growth for AL is strong at 3.8% (higher than its 2.4% pace in 3Q09). The estimated costs of staying in a skilled nursing care is $291 per night, which is $27 more than MAP31, and has the strongest rent growth of any property type at 3.9% (which is higher than its 3.1% pace in 3Q09). Although overall, the NIC MAP data indicates negligible rent growth for CCRC (Rental) and a 0.8% rent growth for CCRC (Entrance Fee), 3 CCRCs managed to achieve rent growths of 6% or higher. Overall, there are strong rental rates and rent growth potential for all senior living property types, particularly Assisted Living and Skilled Nursing, providing an indication of the strength of demand for senior living properties in the region.

MARKET PENETRATION

Fig. 12 Market Penetration by Senior Living Segment (3Q2010)
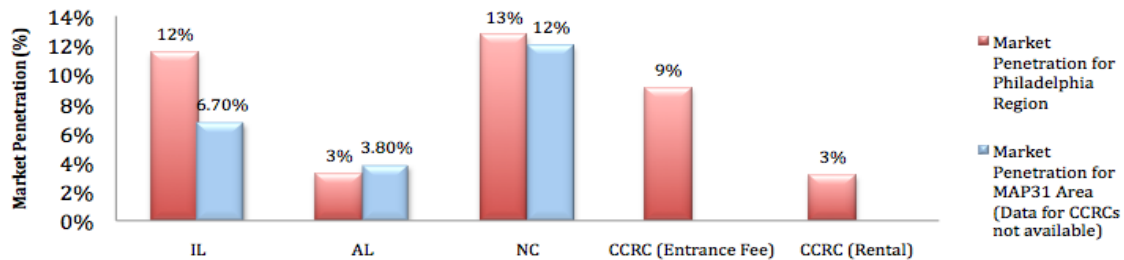
(Source: NIC MAP ® Data and Analysis Service, 3rd Quarter, 2010)

There is high market penetration for IL and NC relative to MAP31 areas, while the penetration for AL is lagging behind MAP31 by 0.6%.[37] Within the primary market area, the market penetration for NC is the highest of all senior living segments at 12.7%. IL is currently the second highest of all senior living housing types at 11.5%, and is almost double the MAP 31 average penetration rate. This indicates a strong growth prospect for the IL segment. The market penetration rate for AL in the Philadelphia Region is 3.2% compared to 3.8% for MAP31, indicating a poor growth prospects for the AL segment. The penetration rates for entrance fee CCRCs is high at 9.3% and much more favorable as compared to rental fee CCRCs, suggesting a stronger growth prospect for entrance fee CCRCs.

SUPPLY ASSESSMENT

NUMBER OF COMPETITORS AND INVENTORY SUPPLY

In terms of competition, there are 83 Independent Living, 98 Assisted Living and 182 Skilled Nursing Care properties in the Philadelphia Region including 73 Continuing Care Retirement Communities. In terms of existing inventory, there are 27,254 units for independent living, 7,694 units for assisted living and 30,102 units for skilled nursing care (the number of CCRC units are included in the IL, AL and NC figures).

STABILIZED OCCUPANCY RATES FOR EXISTING SUPPLY

Fig. 13 Stabilized Occupancy Rates for Senior Living Segments for Philadelphia Region in 3Q2010
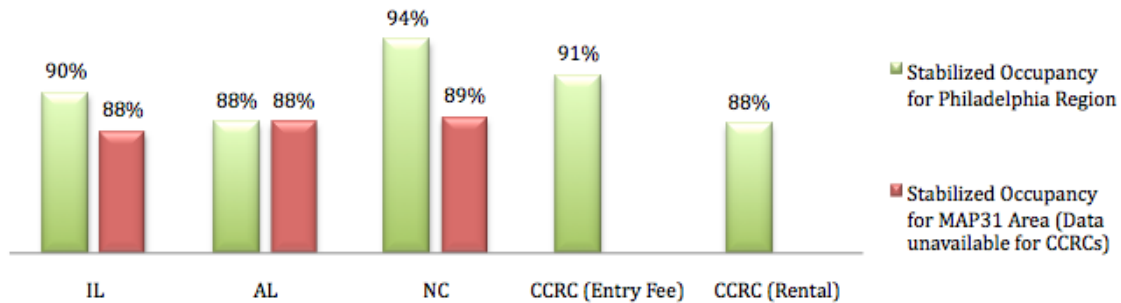
(Source: NIC MAP ® Data and Analysis Service, 3rd Quarter, 2010)

IL and NC are performing better than the MAP31 average, while the AL is performing worse than the MAP31 average. Entrance fee CCRCs are performing better than rental-based CCRCs in terms of stabilized occupancy.[38]

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[37] A penetration rate above 8% is considered high for the senior living industry. Relatively few seniors move in any given year; some will move outside the area, and many are simply not attracted to age-segregated living (Brett and Schmitz, 2009, p. 20). Owners would have to spend heavily on advertising outside the trade area to attract tenants.

[38] Stabilized Occupancy refers to the number of occupied units/beds divided by the number of units/beds currently in operation for each property that is at least two years old or that has achieved occupancy of at least 95.0%.

Independent Living - The occupancy and stabilized occupancy for IL in the Philadelphia Region has trended upwards over the last six quarters reaching 90.1% in 3Q10 since reaching a cyclical low in 2Q09.

Assisted Living - Despite the fact that the occupancy and stabilized occupancy for AL in the Philadelphia Region has trended upwards over the last three quarters, over the past year occupancy has declined 100 bps.

Skilled Nursing Care - The occupancy and stabilized occupancy for NC in the Philadelphia Region remained relatively flat over the last 10 quarters. The occupancy rate for NC rose to 93.7% this quarter after reaching a cyclical low of 92.8% in 2Q10. Over the past year, NC occupancy has risen 40 bps.

Continuing Care Retirement Communities - Although occupancy and stabilized occupancy rates are relatively high for both CCRC types, entrance fee CCRCs outperformed rental CCRCs at 91.4% to 88.3% in occupancy rates respectively, suggesting that there is a stronger preference for entrance fee CCRCs in the region.

MEDIAN AGE OF EXISTING SUPPLY

Overall, the properties in the Philadelphia Region are aged and in need of upgrade, with a median of property age between 13 to 33 years of age for the different property types and a much higher percentage of the properties reporting the need to upgrade relative to properties in the top 31 metropolitan areas. The aged properties present a significant advantage should Pennhurst be redeveloped into a new senior living destination.

CONSTRUCTION ACTIVITY

According the NIC MAP ® Data and Analysis Service's report on construction activity in 3Q10, there were 160 AL units (or about 2.1% of the total inventory) under construction, 276 IL units (or about 1% of the total inventory) under construction, 96 CCRC units (or 0.3% of total inventory) under construction and there was no reported construction activity for NC. There is a medium risk of over-construction for AL given the medium number of construction projects in the pipeline and low absorption rates, while the risks for over-construction for NC and CCRCs are very low since construction activity is at a minimal.

Table 8. Summary of Existing Properties (Philadelphia Region and MAP 31- Top 31 Metropolitan Regions)

Property Types ->	Majority IL		Majority AL		Majority NC	
	Metro	MAP31	Metro	MAP31	Metro	MAP31
Stabilized Occupancy	90.3%	87.8%	88.4%	89.4%	93.7%	88.7%
Average Monthly/Daily Rent	$3,081	$2,688	$4,203	$3,518	$291	$264
Median Age	25	21	13	13	33	35
Reporting Need to Upgrade(%)	44.9%	15.7%	49.2%	17.8%	68.5%	21.7%
Median Units/Beds Per Property	293	171	76	70	150	120
For Profit (%)	36.1%	61.0%	82.7%	86.3%	66.5%	78.8%
Property Count	83	1,444	98	2,314	182	3,987
Inventory	27,254	320,542	7,694	179,626	30,102	569,762
Independent Living Units	18,897	242,637	375	8,884	1,228	11,841
Assisted Living Units[1]	4,006	42,039	6,942	165,508	1,177	19,800
Nursing Care Beds	4,351	35,866	377	5,234	27,697	538,121
Penetration	11.5%	6.7%	3.2%	3.8%	12.7%	12.0%
Construction Units/Beds	276	6,201	160	3,659	0	3,061

(Source: NIC MAP ® Data and Analysis Service, 3rd Quarter, 2010)

HOME HEALTH AGENCIES

Although home health agencies are not a direct competitor for senior housing, they provide an alternative for seniors needing assistance with ADLs and skilled nursing care. Therefore there is a need to examine the supply and market penetration of home health agencies in the primary and secondary market area to determine if they pose a threat to senior housing developments in the area. According to Table 9, the penetration for home health agencies is substantial with an average penetration of 3.4% for the primary and secondary markets. This indicates that there is some competition from home health agencies for the senior housing sector.

Table 9. Home Health Care Agencies Supply and Penetration Rate in 2009

County	Number of Home Health Agencies	Total Patients Served by County	Market Penetration
Philadelphia	28	58,874	3.79%
Chester	8	15,284	3.11%
Montgomery	36	25,210	3.24%

(Source: Pennsylvania Department of Health, 2008)

DEMAND VS. SUPPLY
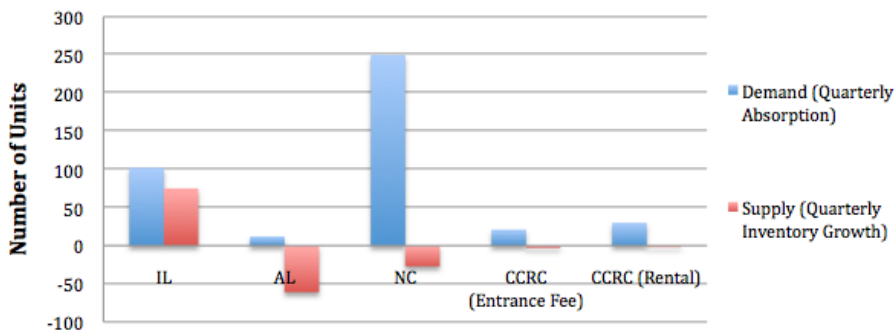
(Source: NIC MAP ® Data and Analysis Service, 3rd Quarter, 2010)

Independent Living-The absorption rate has also been outpacing inventory growth for the last 3 quarters. Over the past year, inventory grew by 162 units while demand increased by 281 units during that time. This indicates that demand for IL is stronger than supply and suggesting absorption potential for more IL units to be added to the market.
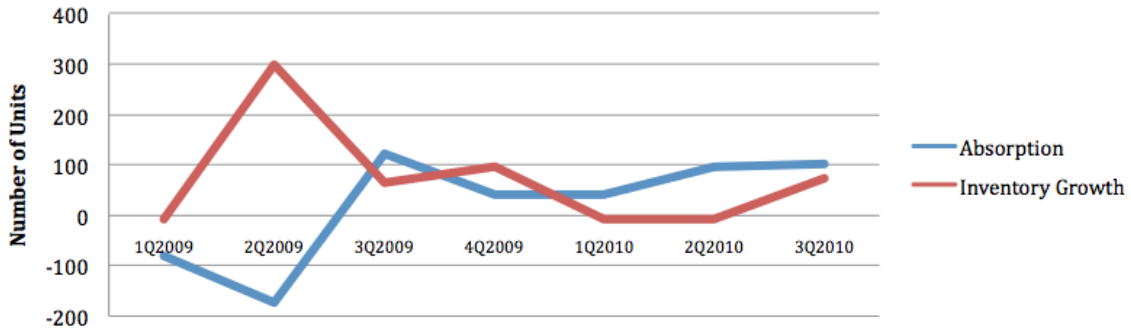
(Source: NIC MAP ® Data and Analysis Service)

Assisted Living - Over the past year, inventory contracted by 71 units and demand decreasing by 139 units. This indicates that overall demand for AL is less than supply in the past year. However, the absorption rate is returning to an upward trajectory, indicating that the market for AL is recovering.
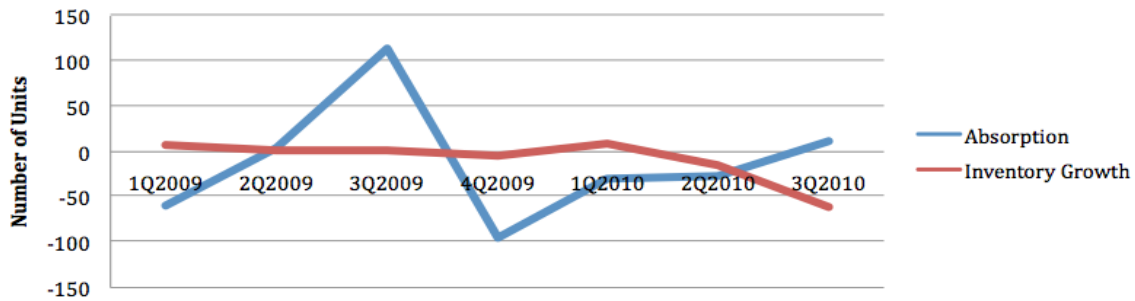
(Source: NIC MAP ® Data and Analysis Service)

Skilled Nursing Care - Over the past year, occupancy has risen 40 bps, with inventory contracting by 137 units and demand decreasing by 22 units during the same period. There was no reported construction activity. This suggests over the past year, the demand for NC is slightly weaker than supply (net absorption rate of -55 per year). However, in the last quarter, the NC segment experienced an upsurge in demand, indicating strong growth for the next few quarters.
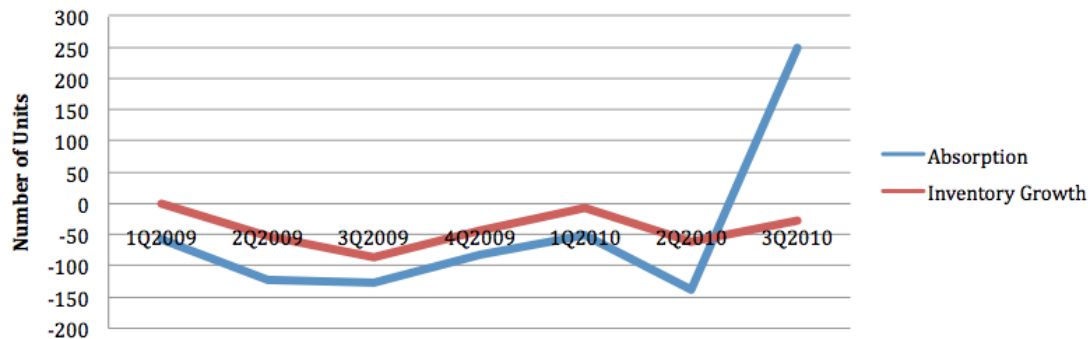
(Source: NIC MAP ® Data and Analysis Service)

Continuing Care Retirement Communities - For entrance fee CCRCs, absorption (demand) at 21 exceeded inventory growth (supply) at -3 in 3Q10. This trend was also similar in rental CCRCs, where absorption (demand) at 30 exceeded inventory growth at -2 in 3Q10. There are currently 96 CCRC units (or 0.3% of total inventory) under construction.

PSYCHOGRAPHICS AND LIFESTYLES

Understanding lifestyle preferences is critical in positioning and planning an adult community especially for the high end senior living developments. PRIZM Segments M1 and M2 were identified as the segments for high-end senior development, accounting for approximately 22% of the population (or 1.28 million people) in the Philadelphia Region. The data in Table 10 indicates that a large percentage of the population are relatively affluent, educated and of appropriate ages for moving into senior housing. However, not all the sub-segments are equally willing to move into senior housing. For example, the "New Empty Nests" and "Gray Power" segments would rather travel or age in their homes respectively.

Knowing what segments the target market falls into would also allow the developers to design and market the facilities and services to meet the tastes and preferences of these segments. The PRIZM segments descriptions also do not indicate that there is a concern for sustainability amongst M1 and M2 seniors. Therefore, if sustainable development were to be pursued, it should be cause of the benefits of saving operating costs rather than because of meeting a lifestyle need of the target market.

Table 10. PRIZM Segments in the Philadelphia Region, 2009

Description of PRIZM Segment	% of Pop. Philadelphia Region (# of individuals)	% National Average	Median Income-producing Asset	Median Net Worth
M1				
Upper Crust Wealthiest and most opulent of lifestyles in America- typically empty-nesting couples between the ages of 45 and 64. Highest concentration of residents earning over $100,000 a year and possessing a postgraduate degree.	3.26% (189,000)	1.53%	$355,850	$836,300
Money & Brains Seem to have it all: high incomes, advanced degrees, and sophisticated tastes to match their credentials. Many of these city dwellers are married couples with few children who live in fashionable homes on small, manicured lots.	1.18% (68,440)	2.01%	$222,500	$582,250
Big Fish, Small Pond Older, upper-class, college-educated professionals, often among the leading citizens of their small-town communities. These upscale, empty-nesting couples enjoy the trappings of success, including belonging to country clubs, maintaining large investment portfolios, and spending freely on computer technology.	2.62% (151,960)	2.20%	$295,000	$734,300
Second City Elite Residents of satellite cities who are prosperous professionals who decorate their homes with multiple computers, large-screen TV sets, and an impressive collection of wines. With more than half holding college degrees, Second City Elite residents enjoy cultural activities-- from reading books to attending theater and dance productions.	1.44% (83,520)	1.28%	$228,275	$520,425
M2				
New Empty Nests* With their grown-up children recently out of the house, New Empty Nests is composed of upper-middle income older Americans who pursue active--and activist--lifestyles. Most residents are over 65 years old, but they show no interest in a rest-home retirement. This is the top-ranked segment for all-inclusive travel packages; the favorite destination is Europe.	2.30% (133,400)	1.06%	$204,500	$508,750

Pools & Patios Formed during the postwar Baby Boom, Pools & Patios has evolved from a segment of young suburban families to one for older, empty-nesting couples. In these stable neighborhoods graced with backyard pools and patios--the highest proportion of homes was built in the 1960s--residents work as white-collar managers and professionals, and are now at the top of their careers.	3.35% (194,300)	1.32%	$124,800	$316,800
Gray Power* The steady rise of older, healthier Americans over the past decade has produced one important by-product: middle-class, home-owning suburbanites who are aging in place rather than moving to retirement communities. Gray Power reflects this trend, a segment of older, midscale singles and couples who live in quiet comfort.	1.62% (93,960)	0.93%	$71,000	$270,550
The Cosmopolitans Educated, upper-midscale, and ethnically diverse, The Cosmopolitans are urbane couples in America's fast-growing cities. Concentrated in a handful of metros--such as Las Vegas, Miami, and Albuquerque--these households feature older, empty-nesting homeowners. A vibrant social scene surrounds their older homes and apartments, and residents love the nightlife and enjoy leisure-intensive lifestyles.	2.68% (155,440)	1.16%	$117,800	$372,250
Middleburg Managers Middleburg Managers arose when empty-nesters settled in satellite communities, which offered a lower cost of living and more relaxed pace. Today, segment residents tend to be middle-class with solid white-collar jobs or comfortable retirements. In their older homes, they enjoy reading, playing musical instruments, indoor gardening, and refinishing furniture.	2.24% (129,920)	2%	$77,000	$203,975
Traditional Times Traditional Times is the kind of lifestyle where small-town couples nearing retirement are beginning to enjoy their first empty-nest years. Typically in their fifties and sixties, these upper-middle-class Americans pursue a kind of granola-and-grits lifestyle. On their coffee tables are magazines with titles like Country Living and Country Home. But they're big travelers, especially in recreational vehicles and campers.	1.09% (63,220)	2.76%	$129,500	$335,900

Segments that will not be likely to move to senior living communities.

(Source: Claritas)

A recent lifestyle interest survey conducted by Del Webb in Pulte Communities showed that the most popular outdoor activities include swimming and golf while walking and cardiovascular equipment workouts are the most popular health and fitness activities in senior communities.

Table 11. Top Sports, athletic and outdoor adventure pursuits

Activity	Percent ranked "extremely important"
Swimming	55.2%
Golf	49.2%
Bowling	34.4%
Fishing	30.1%
Canoeing/Kayaking	26.2%

(Homes, 2006)

Table 12. Top health and fitness pursuits

Activity	Percent ranked "extremely important"
Walking	82.0%
Cardiovascular Equipment Workouts	78.8%
Health and Fitness Immunizations	68.7%
Strength/weight training equipment workouts	67.4%
Water aerobics exercise classes/water-based fitness	63.0%
Swimming	62.5%

(Homes, 2006)

Fig. 17 Population Breakdown by Ethnicity in the Philadelphia Region
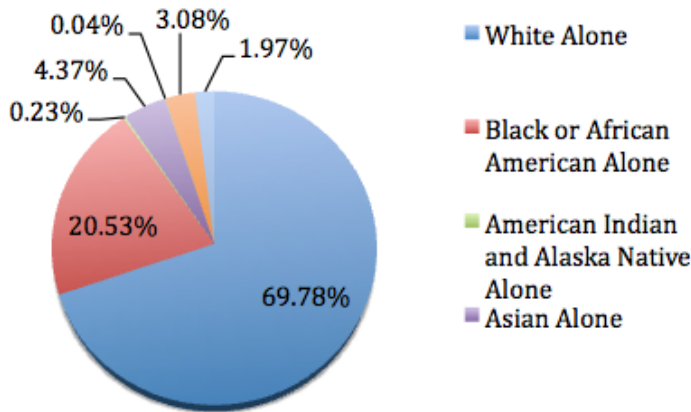
(Source: Claritas)

ETHNICITY OF TARGET MARKET AREA

Knowing the ethnicity of target market is critical as seniors often choose to locate near others of similar cultural backgrounds. Furthermore, the program of the senior facilities can be tailored to meet the cultural preferences (e.g., language, food and cultural events) of the residents if they are from minority groups. In the case of memory care, seniors whose first language is not English often revert to their native tongue due to dementia, and as such, senior living companies must be able to provide staff capable in communicating to residents in their native tongue. In the case of Pennhurst, the target market will include the ethnicities of the following composition; the majority of the residents will be white while a small minority is comprised of Asians and Blacks.

SENIOR LIVING VERSUS OTHER ASSET TYPES

Senior Living developments demonstrate a much higher potential in terms of returns than other property developments. According to Fig. 18, senior living has one of the lowest declines in occupancy (only second to apartments). Moreover, rental growth for senior housing is also the strongest amongst all property sectors, with a 4% bi-annual average. In terms of real estate returns, senior housing is the only property type showing positive returns at the 1 year, 3 year and 5 year periods, demonstrating the viability and financial security of investing in senior housing over other property types (See Fig. 19). This finding also indicates senior living developments should be given higher priority over other types of property developments in the consideration of a mixed-use development at Pennhurst.

Fig. 18 Two Year Occupancy Change and YOY Rent Growth as of 1Q10 in the US
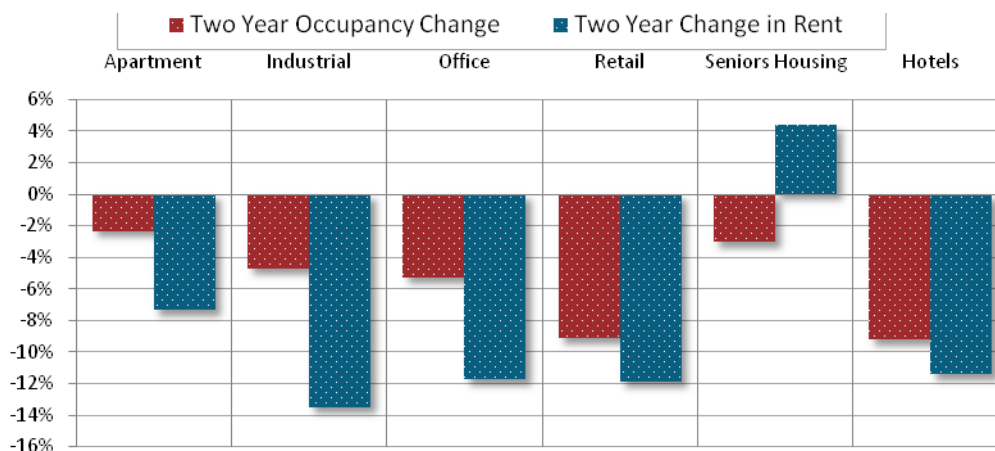
(Sources: MBA Quarterly Data Book; PPR; STR; NIC MAP in Kramer (2010))

Fig. 19 Real Estate Returns of Senior Living Industry Vs. Other Developments in the US

Real Estate Returns
1-, 3-, and 5-year Periods
June 30, 2010
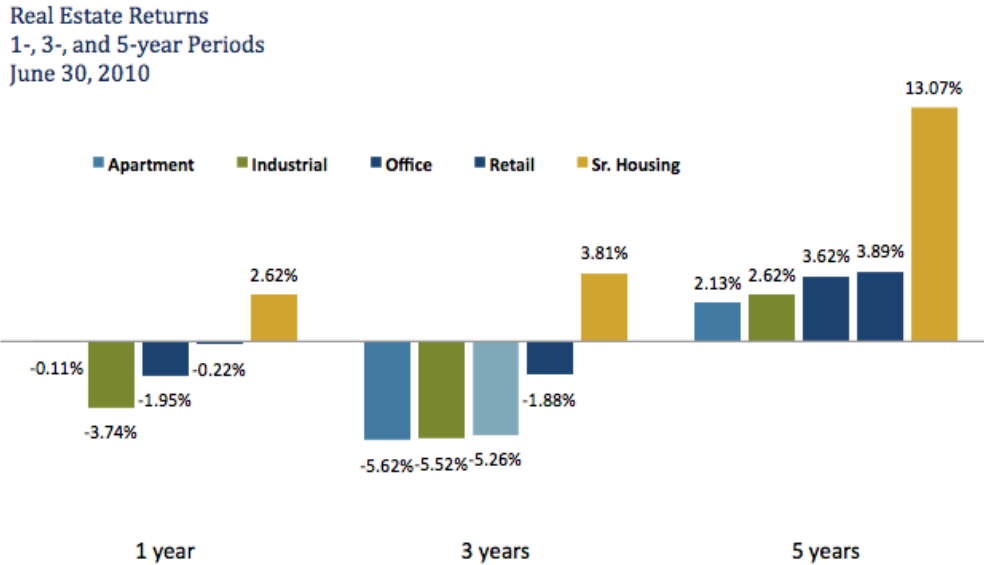
(Source: NCREIF; Heitman Research in Kramer (2010))

RECOMMENDATION

Although there is a positive outlook for the senior living market as a whole, we selected the top three performing segments as our recommended options for development at Pennhurst. Based on evaluating the different senior living segments as shown in Table 13, we recommend developing an independent living, skilled nursing or an entrance fee Continuing Care Retirement Community at Pennhurst.

Table 13. Evaluation of Senior Living Segments based on Primary Market Data

Property Type	Stabilized Occupancy Rate	Market Penetration (3Q2010)	Expected Rental Yield	Rental Growth	Expected Absorption Rate	Risk of Overbuilt market based on Construction Activity Vs. Inventory)	Demand Vs. Supply (Absorption Rates Vs Inventory Growth)
IL	93%*	11.50%	$3,000/month	1.8%	80 units per quarter*	Low (1%)	Demand > Supply
NC	93%*	12.70%	$291/day	3.9/%	20 units per quarter*	None (0%)	Demand>> Supply
CCRC (Entrance-Fee)	91.40%	9.10%	$2150/month; Entrance Fee: $190,000	0	21 units per quarter	Very Low (0.3%)	Demand>Supply
CCRC (Rental)	88.3%	3.0%	$2,150/month	0.8%	30 units per quarter	Very Low (0.3%)	Demand>Supply
AL	88%	3.2%	$3,250 per month	3.2%	-15 units per quarter*	Medium (2.1%)	Demand<Supply

Based on average data for last 3 quarters of 2010

(Source: NIC MAP ® Data and Analysis Service, 3rd Quarter, 2010)

There may be several advantages of having a CCRC over an IL type property as CCRCs allow residents to age in place (Moore, 2009, p. 2). From the developer's standpoint, CCRCs offer greater control over the turnover of residents due to a comprehensive referral pipeline than freestanding IL, AL or NC facilities, since many CCRC residents eventually transition from independent living to assisted living; with some

residents actually transferring to on-campus skilled nursing or special purpose Alzheimer's dementia living arrangements (Moore, 2009, p. 3). Historically, stabilized occupancies for independent living and CCRCs are also 5 to 8% higher (90% or greater) than industry averages for stabilized assisted living communities (approximately 86%).

We determined a conservative unit estimate for the IL, NC and CCRC options based on recommended industry sizes and adjusting for market demand. Also, an annual resident turnover of 20% was assumed. While a minimum of 100 units is marginally acceptable, the IL or CCRC will only generate optimal revenue when it operates at least 135 to 150 revenue-producing units (Moore, 2009, p. 101). Most modern CCRCs are much larger. The developer may also wish to consider meeting lifestyle preferences and amenities such as walking paths and swimming pools based on the market analysis.

Table 14. Recommended Unit Composition at Proposed IL at Pennhurst

Unit Type	No. of Units	Unit Mix	NSF per Unit
Studio/Alcove	-	-	-
One Bedroom	50	33%	750
One Bedroom w/Den/Office	35	24%	995
Two Bedroom	50	33%	1,200
Two Bedroom Deluxe/Penthouse	15	10%	1,500
Total (Excluding support areas)	150 units	100%	154,825 SF

(Adapted from Moore, 2009, p. 95).

Table 15. Recommended Unit Composition at Proposed NC at Pennhurst

Unit Type	No. of units	Unit mix	NSF per Unit
Skilled Nursing Care			
Single-occupancy room	60	43%	160
Double-occupancy room	50	36%	200
Alzheimer Care			
Single-occupancy room	10	7%	160
Double-occupancy room	25	14%	200
Total (Excluding support areas)	145 units	100%	26,200

(Adapted from AIA, 2006).

Table 16. Recommended Unit Composition at Proposed CCRC at Pennhurst

Property Type within CCRC	Number of Units/Beds
Independent Living Units	205
Assisted Living Units	5
Alzheimer's/Dementia Units	15
Skilled Nursing beds	60
Total Units-Beds	295
Land Area Required	17 acres
Unit density	17 units/acre

(Adapted from Moore, 2009, p. 102).

The Conceptual Plan for Reuse study by the Community Design Collaborative (2009) recommended that the preservation and adaptive reuse of nine buildings that form the major quad of the original historic campus existing buildings was feasible for a mixed-use development.[39] However, a further site study is recommended to assess the following considerations that are specific for adaptive reuse of buildings for senior living properties (as recommended by Moore, 2009):

1. Site characteristics- the site should be appropriate and essentially irreplaceable in the immediate primary market area. A state-of-the-art independent living community built on a similar nearby site with competitive pricing should not affect the competitiveness of the converted existing/older property by much.

2. The building structure should be truly unique, with innovative, practical and cost-effective adaptive reuse potential. As a historical landmark with reputation for being the last place of institutionalization, it is still unclear whether Pennhurst's legacy is an asset or liability for a senior housing development.

3. The total turn-key cost of acquisition, renovation and conversion should be somewhat less than the all-in cost of a newly-designed and developed state-of-the-art senior living community. Nonetheless, the historical significance of Pennhurst, tax incentives and preservation grants offered by the government to reuse the existing building stock rather than to demolish and replace should be factored into the evaluation.

4. The developer would need to bear in mind that the consumer will give very little consideration to the necessary tradeoffs and compromises made in order to reuse the existing structure.

5. The product will need to be truly competitive in terms of product, price, service and value. With adaptive reuse, the operator must offer very competitive pricing since consumers will focus on pricing as the primary decision making factor.

POTENTIAL PARTNERS

I.   GENERATIONS OF HOPE

Generations of Hope is an innovative nonprofit corporation that established Hope Meadows, an intergenerational neighborhood that supports families who have adopted children from foster care and a mix of older adult households. A Generations of Hope community (GHC) provides a supportive and caring environment for children, their families and older adults households. Based the principles of reciprocity and mutual care, children benefit from GHC by having the support of both older adults and other families, while seniors benefit by being able to age-in-community successfully by maintaining close relationships with others, and by remaining involved in activities that provide purpose and meaning.

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[39] These buildings include the Limerick, Industry, Hershey, Philadelphia, Mayflower, Quaker and Rockwell Halls, the Administration Building, and the Dietary/Franklin Hall.

REQUIREMENTS FOR GHC FACILITIES:

- All buildings must be geographically contiguous to provide opportunities for the formation and development of social bonds between residents.

- Common areas are needed where residents may convene and increase the odds of casual encounter.

- Indoor and Outdoor gathering spaces

- Basic design must be flexible and responsive enough to accommodate changing needs of people who live in a GHC (e.g., home interiors and the physical layout of the community should take into account the space needs of a growing family, the reduced mobility that comes with age and seniors' desire to age-in-community, and young children's needs for play areas and spaces for "hanging out" when they are older)

- As the older adults are the community's volunteers, a ratio of 3.5 senior households to each family household is optimal for the community work to be done effectively. This ensures that sufficient number of seniors would be available to help families and each other.

SPECIAL REQUIREMENTS FOR SENIORS:

- Unlike a typical retirement community, seniors in a GHC must have an identity as givers, rather than recipients of service. Although seniors do have needs, those needs are met within the community by its residents, including seniors themselves.

- Seniors who do not want retirement to mean the end of their productive years, who want it to mean something more than a pension, health care, and a roof over their heads.

- Seniors are expected to volunteer within the community on a regular basis. Their needed level of commitment is compensated by offering physical and material support such as reduced rent, modified housing, and property maintenance in exchange for their volunteer hours.

- Diversity across ethnicity, education, and income levels, life experiences, and perspective is encouraged.

ANALYSIS FOR GHC

Redeveloping Pennhurst into a Generation of Hopes community is an excellent opportunity given the strong market demand for senior housing and single family housing in the area. A challenge, however, is to find seniors who are accepting of the GHC concept and who are still able to contribute actively to the community. An additional psychographic market study of seniors falling into this demographic may present stronger evidence to support or refute this recommendation.

II. THE GREEN HOUSE PROJECT

The Green House model is a de-institutionalization effort in re-envisaging skilled nursing homes to offer its residents with homely environments, while also supplying a full range of personal care and clinical services

expected in high-quality nursing homes. Green house program aims to partner with organizations that are geographically diverse, represent a mixture of rural, urban and suburban settings, have a diverse sponsorship, and are able to replicate the model quickly.

REQUIREMENTS FOR GREEN HOUSE HOMES

- Green House homes are designed to be similar to homes in which elders would have lived in their community. Given that the primary market would most likely originate from urban communities, the Green House homes would have to be apartments or duplexes.

- Regardless of the location, a Green House home must be fully independent from other homes or buildings with no more than 10 elders (12 with a financial hardship exception).

- The buildings must include the following amenities:

  o A hearth area providing a living area, dining area and open kitchen
  o A single dining table that seats all elders
  o Private bedrooms providing a full bathroom, locked medicine cabinet, and ample natural lighting
  o Ceiling lifts
  o Fenced outdoor space with walking paths
  o Visual sight lines from the kitchen to the majority of the hearth area, bedrooms and outdoor space
  o Significant window areas in all common areas of the Green House Home.

ANALYSIS FOR GREEN HOUSE PROJECT

Redeveloping part of Pennhurst into a Green House community is an excellent opportunity given the strong market demand for skilled nursing in the area. A challenge, however, is to find a partner/operator to work with the Green House model. Secondly, the special architectural requirements to develop a Green House model would mean that adaptive re-use of the existing buildings at Pennhurst will not be possible.

III. KENDAL

Originating from Pennsylvania, Kendal is a system of communities and services for older adults integrating Quaker values in the community and fostering continued learning, outreach programs in the field of aging, and a culture of giving. Kendal develops and operates mainly continuing care retirement communities. They tend to locate their communities near college towns across New England, the Mid-Atlantic States, the near South, and the Midwest.

REQUIREMENTS FOR KENDAL CCRCS:

- An environment that reduces barriers and facilitates access and safety.
- Access to nature, gardening and to outdoor activities
- Interconnecting paths and nature trails to encourage mobility throughout community spaces.
- Physical design should take advantage of the local setting and be sensitive to the environment.
- Typically has 350 residents, 200+ staff; 200 IL; 35 AL; 35 NH

ANALYSIS FOR KENDAL

Redeveloping part of Pennhurst into a Kendal community is an excellent opportunity given the strong market opportunities for CCRCs in the area and the large amounts of greenery and trails at the site. The challenges include competition with two existing Kendal communities near to the Pennhurst site – Kendal at Longwoods, Crosslands, Coniston and Cartmel, PA and Barclay Friends in West Chester, PA.

REFERENCES:

American Institute of Architects Facilities Guideline Institute (2006). Guidelines for Design and Construction of Healthcare Facilities. AIA.

Brett, Deborah and Schmitz, Adrienne (2009). *Real Estate Market Analysis- Methods and Case Studies*. Urban Land Institute.

Community Design Collaborative (2009). *Pennhurst: Planning a Community of Conscience- Conceptual Plan for Reuse.*

Generation of Hope Development Corporation (2009). Generation of Hope Communities. *White Paper Series*, Vol. II, No. 2.

Homes, Pulte (2006). Active recreation tops lifestyle desires for over-55 crowd and Baby Boomers. Accessed online from http://library.corporate-ir.net/library/14/147/147717/items/292142/050608survey.pdf on Nov 25, 2010.

Kendal Corporation (2010). Accessed online from <http://www.kendal.org/> on Nov 11, 2010.

Kramer, Robert (2010). Senior Housing and Care – Current Market Performance and Historical Trends. *Powerpoint Presentation prepared for HADM 5503/ PAM 5500*.

Moore, Jim (2009). *Independent Living and CCRCs- Survival, Success & Profitability Strategies for Not-for-Profit Sponsors and For-Profit Owner/Operators*. Westridge Publishing (Texas).

National Investment Center ® Data and Analysis Service (2010). *Metro Report, 3rd Quarter 2010, Philadelphia, PA.*

National Investment Center ® Data and Analysis Service (2010). *Inventory and Construction Report, 3rd Quarter 2010, Philadelphia, PA.*

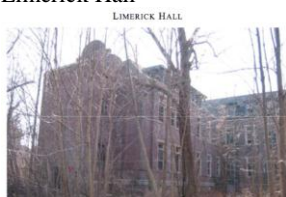National Investment Center ® Data and Analysis Service (2010). *Occupancy Graphs- IL, AL, and NC.*
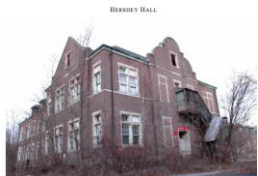
Pennsylvania Department of Health. (2008). *Home Health Agencies – Annual Data Collection Report.*

The Greenhouse Project (2009). Guide Book for Transforming Long-Term Care.

*For more information on the NIC MAP® Data and Analysis Service, please visit www.nicmap.org or call 410-267-0504.

APPENDIX A: BUILDING CONDITIONS

Building	Description of Building Condition
Administration Building	Built in 1915 and is approximately 29,128 square feet and two stories tall (excluding basement and attic). It was constructed using brick, concrete and steel structure. The building has fire damage to 2 rooms. The cupola has had portions of its copper cladding removed. There has been some water damage in lobby. The marble wainscoting has been smashed. The balustrade will need to be replicated in some sections. The building's exterior trim needs to be repainted. The Depression-era Works Progress Administration tile mosaics on the south façade, *the Lives of the Slaves*, were recently vandalized. In addition, the limestone at the porch is in poor condition.
AssemblyHall	Built in 1928, the Assembly Hall is approximately 27,102 square feet and two-stories tall (excluding basement and attic). It was constructed using brick, concrete, and steel structure. The second floor was sealed off due to fire regulations before the building was abandoned. The first floor has a 900-seat auditorium and is air-conditioned. There was some water damage throughout, particularly to the basement. The second floor hallways are lit with elaborate skylights.
Blacksmith Shop	This building was built in 1888 and is approximately 989 square feet and one-story tall.
Boiler Plant	The Boiler Plant is roughly 12,000 square-foot and used to provide heat for all Pennhurst buildings via a system of underground tunnels. The plant is along the former Schuylkill Division of the Pennsylvania Rail- road, now the Schuylkill River Trail. It was used until recently by the Veterans Administration, which is housed in what was formerly Pennhurst's Horizon Hall. All machinery is still intact in this facility, and could be reused to heat the Pennhurst should it be occupied.
Devon Hall	Devon Hall was built in 1948 and is approximately 103,840 square foot and three stories tall (excluding attic and basement). This building was constructed with brick, concrete and steel structure. Devon had a few series of small fires. Some windows are missing. The basement and the roof appears to be in good condition. The building would need new floor coverings, weatherstripping of windows and doors, spot roof repairs and requires painting for exterior trim. Additional challenges include the poor condition of the north parapet.

Dietary 	This building is a two story brick, concrete and steel structure. Roof damage is the main issue for the building. The kitchens had been used more recently by the Veterans Administration. A later flat-roofed addition seen above has its stucco sin peeling away. Dietary also includes Nobel and Franklin Halls, which are sometimes listed separately. Franklin was stricken with a small fire in the Winter of 2007. The Fire Department tore the windows out and put holes in the roof in a small part of the building. Other issues include the poor condition of the roof framing; the partially collapsed roof; and the poor interior conditions.
Hershey Hall 	Built in 1914, Hershey Hall is approximately 33,200 square feet and 3 stories tall (excluding basement and attic). It was constructed with concrete, brick, steel and stone foundation. It requires replacement of gutters and downspouts and weatherstripping of windows and doors.
Hospital 	The building was built in 1921, is approximately 86,632 square feet and 2 stories tall (excluding attic and basement). It was constructed using brick, concrete, wood and stone foundation. It comprises of Wings A, B, C and D of the original building. Wing C does not meet current Life Safety Code requirements. Wings E and F are a one-story brick, concrete and steel structure. These wings have baseboard electric heat. Some of the issues in the building include: the roof and wooden floors collapsed in the north wing; limestone cornice is in poor condition and missing pieces; the eight foot high retaining wall is leaning; the wood floors collapsed; and at the main entrance from roadside has an unstable wood floor.
Industry Hall 	The building was built in 1914, is approximately 23,182 square feet and two stories tall (excluding basement and attic). It was constructed using brick, concrete, steel and stone foundation. It requires replacement, reseal and weatherstrip windows and exterior doors. Other issues include the poor condition of the wood porch, fire escape and the limestone sills.
Laundry Building 	The building was built in 1913, is approximately 42,872 square feet and two stories tall (excluding basement and attic). It was constructed using brick and concrete, steel and stone. The buildings requires replacement of some exterior walkways. The laundry equipment has been removed.
Limerick Hall 	This building was built in 1915, is approximately 43,270 square feet, and is three stories tall. It was constructed with brick, concrete and steel structure and is located to the west of Administration along Commonwealth Drive. The building's gutters and downspouts requires repair. The third floor is sealed off. Other issues include the poor condition of the wood framed porch and the limestone coping.

Mayflower Hall 	Built in 1909, Mayflower Hall is approximately 45,140 square feet and three stories tall (excluding the basement and attic). It was constructed with brick, concrete, wood and stone. The building's windows and exterior doors require replacement, and its exterior trim needs to be repainted. Other issues include: a gap between the north stair tower and the building; the porch is in poor condition; cracks in the brick masonry and the third floor is sealed off.
Penn Hall 	Built in 1936, the building is approximately 34,208 square feet and two stories tall (excluding basement and attic). This building was constructed with concrete, and steel structure with exposed basement. This building was originally employee housing. It is in decent condition only requiring replacement of exterior doors, renovation of bath and toilet facilities, repair and resurfacing of built-up roof and re-painting of exterior trim.
Philadelphia Hall 	Built in 1908, the building is approximately 14,448 square feet and two stories tall (excluding basement and attic). The building was constructed with brick, concrete and stone. List of problems include: asphalt roofing shingles in poor condition, broken and missing gutters and downspouts, broken windows and doors, vines growing up walls, steel fire escapes and pedestrian bridges in poor condition, efflorescence on brick masonry, missing mortar in masonry joints, several holes in roof and porch in poor condition.
Quaker Hall 	Built in 1916, Quaker Hall is approximately 27,440 square feet and two stories tall (excluding attic and basement). It was constructed with brick, steel, concrete and stone. It requires replacement, resealing, and weatherstripping of its windows and exterior doors. The exterior trim requires repainting as well. Other issues include the cracked limestone and minor spalling in the brick masonry.
Rockwell Hall 	Built in 1909, Rockwell Hall is approximately 25,200 square feet and two stories tall (excluding attic and basement). It was constructed with brick, steel, concrete and stone. It requires repair/replacement of its gutters and downspouts and repainting of its exterior trim. Other issues include the damaged brick masonry at the lower level window and the poor condition of dormers.

Stores and Maintenance Building	This building is a two story brick, concrete and steel structure. Exterior brickwork is falling from building, exposing cinder block walls underneath.
Tinicum Hall	Built in 1909, Tinicum Hall is approximately 32,628 square feet and two stories tall (excluding attic and basement). It was constructed with brick, concrete, steel and stone. The building needs replacement of floor coverings, repair of gutters and downspouts, replacement, resealing and weatherstripping of windows and exterior doors. Other issues include several small holes in the roof, missing roof vents at the ridge and a gap between the stair tower and the building.
Union Hall	Built in 1909, Union Hall is approximately 31,708 square feet and two stories tall. It was constructed with brick, concrete, steel and stone. The building's concrete floors, driveway and loading dock needs repair. Other issues include the poor condition of the limestone coping and a gap between the stair tower and the building.
Vincennes Hall	Built in 1909, Vincennes Hall is approximately 36,600 square feet and three stories tall (excluding attic and basement). IT was constructed with brick, concrete, steel and stone. The building's feasibility of rehab needs further examination. Other issues include: multiple holes in the roof, tree leaning against roof, and cracks in the brick masonry.

(from Community Design Collaborative, 2009)

Figure 24
Future Land Use in Montgomery County