



**MARKET  
ASSESSMENT &  
DEVELOPMENT  
OPPORTUNITIES FOR  
ADAMS COUNTY,  
PENNSYLVANIA**

PREPARED FOR:

**ADAMS COUNTY,  
PENNSYLVANIA**

**PREPARED BY: THE CHESAPEAKE GROUP, INC.  
IN COOPERATION WITH AND  
UNDER CONTRACT TO  
TISCHLERBISE**

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## Introduction

The following document defines marketable economic development opportunities for Adams County in Pennsylvania. Its sole purpose or intent is to provide guidance for economic development and related land use for Adams County's Comprehensive Plan. It was prepared under contract to TischlerBise and Adams County.

The analysis indicates that there is ample opportunity to expand economic activity in Adams County. However, pursuit of economic activity will in many cases require coordination with local jurisdictions within Adams County. Furthermore, long-term economic viability will require facilitating the continuation of and strengthening current activity; while fostering new activity.

The analysis is based on information gathered through a variety of means including those that follow.

- ✓ Face-to-face or in-person interviews with stakeholders.
- ✓ Small focus group sessions with stakeholder interests.
- ✓ A survey of municipality interests.
- ✓ A survey of households that reside in Adams County.
- ✓ A survey of businesses within Adams County.
- ✓ Review of secondary available data, such as that from the U.S. Census Bureau, Adams County and the Commonwealth.
- ✓ Independent research.
- ✓ Proprietary computer modeling.
- ✓ Experience of the principals involved with the effort.

All estimates of potential in the analyses are conservative in nature, tending to understate demand, opportunities and activity. The estimates and suggested activity are based on conservative assumptions for the markets potentially served and represent only The Chesapeake Group's opinion based on the analyses and experiences of the organization. Throughout the document specific names of organizations and businesses are mentioned. This neither reflects an endorsement by The Chesapeake Group, TischlerBise or Adams County; nor any expression of interest by the entities.

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## Context

There are demographic and other changes within the United States, Pennsylvania and the global economy that impact the opportunities and the future for Adams County. These include but are not limited to those that follow.

- ✓ Birth rates have fallen to the lowest level in the history of the country.
- ✓ Fertility rates are at the lowest or near lowest level in history as well.
- ✓ The marriage rates continue to decline and are also at the lowest level in the country's history.
- ✓ The average age of residents continues to increase.
- ✓ The population continues to diversify in terms of origin, ethnicity, race and other related factors.
- ✓ "Baby Boomers" and younger households between the ages of 21 and 30 are seeking different housing options and environments than past generations.

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- ✓ “Baby Boomer” households and households composed of individuals between the ages of 21 and 30 – the two fastest growing components of the population – are increasingly seeking and participating in passive and other recreational activity in growing numbers.
- ✓ “Baby Boomers” have been a driving substantial market force for the past fifteen years. However, in the commercial and residential markets, their importance will dwindle in the next eight to ten years as they continue to age.
- ✓ The aging population likely increases the demand for office space and related services in various professional areas while diminishing demand in others.
- ✓ Manufacturing is changing significantly through changing technology, technology application and the introduction of new materials. The changing technology diminishes the importance of labor as a cost factor and increases the importance of transportation relative to other cost factors. Therefore, for many products, production facilities located in major population centers or adjacent areas will have a competitive advantage.
- ✓ The technological change in manufacturing will result in the return of production of many products to the United States that had been imported
- ✓ Manufacturing changes will impact retail and related space in significant ways in the future, resulting in lower demand for space.
- ✓ Countering the need for fewer inventories on site as a result of increased “on demand” production and the internet is the trend among major box stores and others to fulfill online orders from stores versus warehouses.
- ✓ The global population continues to grow. Demand for food changes with rising incomes in developing countries and with increased health concerns in the United States.
- ✓ Agricultural production continues to be an industry in which this country is in a dominant position in the world.

Adams County’s economy has in the past and continues at present to be driven by its historical and natural resources. The natural resources have led to significant and diverse agricultural production. There are few communities in the entire country that have within it a community with the name recognition and historical significance associated with its largest population center of Gettysburg.

The agricultural economy is linked to the land. Because of soil conditions and topography, one area of the county is a “fruit belt.” In other areas, grain and other crops as well as animal husbandry are dominant. Technology application differs significantly from one group to the other. In some cases, much of the product continues to be largely dependent upon human labor; while the other has moved heavily toward mechanization that diminishes the labor input. In 2010/2011, there were 86 agricultural related companies in Adams County according to the “Adams County Community Profile.”

Yet, Adams County is also diverse economically. The “Adams County Community Profile” defines the number of establishments by year. It identified just over 1,900 business establishments in 2010/2011. Seven of the industry categories contained over 100 operating establishments. Manufacturing is one of those categories with more than 100 companies. Three categories include more than 200 establishments. These are Construction, Retail Trade and Health Care. It is noted that “Health Care” is one of the fastest growing industries in the country. Table one contains the industries in Adams County in 2010/2011.

# Market Assessment & Economic Development Opportunities

Table 1 – Industries (by NAICS) Identified in Adams County\*

Adams County	Year 2010/2011	County Website
NAICS	Industry Total Establishments	1911
11	Agriculture, Forestry, Fishing & Hunting	86
21	Mining, Quarrying, and Oil & Gas Extraction	***
22	Utilities	***
23	Construction	212
31-33	Manufacturing	123
42	Wholesale Trade	78
44-45	Retail Trade	321
48-49	Transportation and Warehousing	66
51	Information	23
52	Finance and Insurance	84
53	Real Estate and Rental and Leasing	49
54	Professional and Technical Services	124
55	Management of Companies and Enterprises	7
56	Administrative and Waste Services	77
61	Educational Services	22
62	Health Care and Social Assistance	237
71	Arts, Entertainment, and Recreation	39
72	Accommodation and Food Services	189
81	Other Services, Ex. Public Admin	174

\* Source: Pennsylvania Department of Labor & Industry.

## Analyses

Multiple analyses, including a cluster analysis using comparative assessment or gap methodology and demand forecasting, were performed to define current and future opportunities for Adams County and subareas within Adams County. To determine additional potential uses without bias, the communities must be placed within (a) the context of the larger geographic area or market, and (b) the local population. The overall purpose is to define opportunities and niches that are un-met and under-served or could potentially be successful at present or in the future in Adams County and its communities.

### Adams County NAICS Comparative/Gap Methodology Cluster Analysis

The comparative assessment-gap methodology cluster analysis was performed to identify business “gaps” and opportunities. The U.S. Census Bureau provides annual information on Business Patterns throughout the nation in three different geographic formats. These are at the county, zip code, or Metropolitan Statistical Area level. This analysis includes an assessment of local business patterns at both the county and zip code levels.

# Market Assessment & Economic Development Opportunities

The identified business gaps defined in this process may or may not be appropriate for Adams County because of the nature of operations, local development regulations, community goals, scale, or other factors.

The initial gap analysis compared the business structure of Adams County to that associated with other counties that are “similar.” In determining communities for which the comparison can be made, the following criteria were used.

- ✓ The population had to be similar to that associated with Adams County since demand for many goods and services are ultimately dependent largely upon the size of the market served.
- ✓ The number of households had to be similar to that associated with Adams County since demand for many goods and services are ultimately dependent largely upon the size of the market served.
- ✓ The selected areas all have median household incomes that are comparable to Adams County.
- ✓ The counties had to be located in close proximity to larger metropolitan areas.
- ✓ The selected communities all had to have a significant base of visitor activity and visitations.
- ✓ Transportation and highway access had to be similar.
- ✓ The jurisdictions had to be located in the northern half of the country or have climatic conditions not dissimilar to those for Adams County.

Based on the criteria, seven counties were identified for which comparisons in economic structures were made. These seven communities follow.

Bonneville Co., ID  
 Wicomico Co., MD  
 Cass Co., MO  
 Fond du Lac Co., WI

Cape May Co., NJ  
 Wayne Co., NY  
 Yamhill Co., OR

Under-represented “industries” were then defined as those where Adams County had a lesser number of businesses than at least six of the other seven communities. Thus, the number of businesses in Adams County compared to the other communities was below what might be expected. It is further noted that in some cases the under-represented industry differences are great; and in others they are smaller. Once again, under-representation does not mean that the identified categories of businesses are desirable for Adams County.

The following are the “industries” or businesses identified as being under-represented in Adams County. One hundred ninety-one (191) were identified in total with the majority presented in the table that follows.

*Table 2 – Underrepresented at the County Level\**

NAICS Code	Industry
212321	Construction sand and gravel mining
<b>236115</b>	<b>New single-family housing construction (except operative builders)</b>
<b>236117</b>	<b>New housing operative builders</b>
<b>237110</b>	<b>Water and sewer line and related structures construction</b>
<b>237210</b>	<b>Land subdivision</b>
<b>237310</b>	<b>Highway, street, and bridge construction</b>
<b>238110</b>	<b>Poured concrete foundation and structure contractors</b>

# Market Assessment & Economic Development Opportunities

Table 2 – Underrepresented at the County Level (Continued)\*

NAICS Code	Industry
238120	Structural steel and precast concrete contractors
238130	Framing contractors
238140	Masonry contractors
238170	Siding contractors
238210	Electrical contractors and other wiring installation contractors
238220	Plumbing, heating, and air-conditioning contractors
238320	Painting and wall covering contractors
238330	Flooring contractors
238340	Tile and terrazzo contractors
238350	Finish carpentry contractors
238910	Site preparation contractors
311811	Retail bakeries
323110	Commercial lithographic printing
323113	Commercial screen printing
323114	Quick printing
325412	Pharmaceutical preparation manufacturing
326199	All other plastics product manufacturing
327320	Ready-mix concrete manufacturing
332710	Machine shops
332721	Precision turned product manufacturing
339116	Dental laboratories
339920	Sporting and athletic goods manufacturing
339950	Sign manufacturing
423120	Motor vehicle supplies and new parts merchant wholesalers
423210	Furniture merchant wholesalers
423420	Office equipment merchant wholesalers
423430	Computer and computer peripheral equipment and software merchant wholesalers
423610	Electrical apparatus and equipment, wiring supplies, and related equipment wholesalers
423810	Construction and mining (except oil well) machinery and equipment merchant wholesalers
423830	Industrial machinery and equipment merchant wholesalers
423850	Service establishment equipment and supplies merchant wholesalers
423910	Sporting and recreational goods and supplies merchant wholesalers
423930	Recyclable material merchant wholesalers
424210	Drugs and druggists' sundries merchant wholesalers
424430	Dairy product (except dried or canned) merchant wholesalers
424930	Flower, nursery stock, and florists' supplies merchant wholesalers

# Market Assessment & Economic Development Opportunities

Table 2 – Underrepresented at the County Level (Continued)\*

NAICS Code	Industry
424720	Petroleum and petroleum products merchant wholesalers (except bulk stations and terminals)
424930	Flower, nursery stock, and florists' supplies merchant wholesalers
425120	Wholesale trade agents and brokers
<b>441210</b>	<b>Recreational vehicle dealers</b>
<b>441222</b>	<b>Boat dealers</b>
<b>441310</b>	<b>Automotive parts and accessories stores</b>
<b>442110</b>	<b>Furniture stores</b>
<b>442210</b>	<b>Floor covering stores</b>
<b>443112</b>	<b>Radio, television, and other electronics stores</b>
<b>443120</b>	<b>Computer and software stores</b>
<b>444110</b>	<b>Home centers</b>
<b>445120</b>	<b>Convenience stores</b>
<b>445220</b>	<b>Fish and seafood markets</b>
<b>445291</b>	<b>Baked goods stores</b>
<b>446191</b>	<b>Food (health) supplement stores</b>
<b>447110</b>	<b>Gasoline stations with convenience stores</b>
<b>447190</b>	<b>Other gasoline stations</b>
<b>448310</b>	<b>Jewelry stores</b>
<b>451110</b>	<b>Sporting goods stores</b>
<b>451211</b>	<b>Book stores</b>
<b>451220</b>	<b>Prerecorded tape, compact disc, and record stores</b>
<b>452112</b>	<b>Discount department stores</b>
<b>452910</b>	<b>Warehouse clubs and supercenters</b>
<b>452990</b>	<b>All other general merchandise stores</b>
<b>453310</b>	<b>Used merchandise stores</b>
<b>453910</b>	<b>Pet and pet supplies stores</b>
<b>453991</b>	<b>Tobacco stores</b>
454111	Electronic shopping
481111	Scheduled passenger air transportation
484210	Used household and office goods moving
484220	Specialized freight (except used goods) trucking, local
484230	Specialized freight (except used goods) trucking, long-distance
485310	Taxi service
488410	Motor vehicle towing
488510	Freight transportation arrangement
492210	Local messengers and local delivery
493110	General warehousing and storage
511110	Newspaper publishers
511120	Periodical publishers
512110	Motion picture and video production
515112	Radio stations
517110	Wired telecommunications carriers

# Market Assessment & Economic Development Opportunities

Table 2 – Underrepresented at the County Level (Continued)\*

NAICS Code	Industry
517210	Wireless telecommunications carriers (except satellite)
518210	Data processing, hosting, and related services
519130	Internet publishing and broadcasting and web search portals
522110	Commercial banking
522120	Savings institutions
522130	Credit unions
522291	Consumer lending
522292	Real estate credit
522310	Mortgage and non-mortgage loan brokers
523120	Securities brokerage
523920	Portfolio management
524114	Direct health and medical insurance carriers
524210	Insurance agencies and brokerages
531110	Lessors of residential buildings and dwellings
531190	Lessors of other real estate property
531210	Offices of real estate agents and brokers
531311	Residential property managers
531312	Nonresidential property managers
531320	Offices of real estate appraisers
532210	Consumer electronics and appliances rental
532220	Formal wear and costume rental
532230	Video tape and disc rental
532291	Home health equipment rental
532310	General rental centers
541110	Offices of lawyers
541191	Title abstract and settlement offices
541211	Offices of certified public accountants
541213	Tax preparation services
541214	Payroll services
<b>541310</b>	<b>Architectural services</b>
<b>541320</b>	<b>Landscape architectural services</b>
<b>541330</b>	<b>Engineering services</b>
<b>541370</b>	<b>Surveying and mapping (except geophysical) services</b>
<b>541410</b>	<b>Interior design services</b>
<b>541430</b>	<b>Graphic design services</b>
541511	Custom computer programming services
541611	Administrative management and general management consulting services
541613	Marketing consulting services
541711	Research and development in biotechnology
541810	Advertising agencies
541820	Public relations agencies
541910	Marketing research and public opinion polling
541921	Photography studios, portrait

# Market Assessment & Economic Development Opportunities

Table 2 – Underrepresented at the County Level (Continued)\*

NAICS Code	Industry
541940	Veterinary services
561210	Facilities support services
561311	Employment placement agencies
561440	Collection agencies
561492	Court reporting and stenotype services
561510	Travel agencies
561612	Security guards and patrol services
561621	Security systems services (except locksmiths)
561710	Exterminating and pest control services
561730	Landscaping services
561740	Carpet and upholstery cleaning services
561790	Other services to buildings and dwellings
562910	Remediation services
611430	Professional and management development training
611610	Fine arts schools
611620	Sports and recreation instruction
611691	Exam preparation and tutoring
611692	Automobile driving schools
621210	Offices of dentists
621310	Offices of chiropractors
621320	Offices of optometrists
621330	Offices of mental health practitioners (except physicians)
621340	Offices of physical, occupational and speech therapists, and audiologists
621420	Outpatient mental health and substance abuse centers
621492	Kidney dialysis centers
621493	Freestanding ambulatory surgical and emergency centers
621511	Medical laboratories
621512	Diagnostic imaging centers
621610	Home health care services
621910	Ambulance services
622110	General medical and surgical hospitals
623110	Nursing care facilities
623210	Residential mental retardation facilities
623312	Homes for the elderly
624310	Vocational rehabilitation services
713120	Amusement arcades
713950	Bowling centers
<b>722110</b>	<b>Full-service restaurants</b>
<b>722211</b>	<b>Limited-service restaurants</b>
<b>722213</b>	<b>Snack and nonalcoholic beverage bars</b>
722310	Food service contractors
722330	Mobile food services
811112	Automotive exhaust system repair

# Market Assessment & Economic Development Opportunities

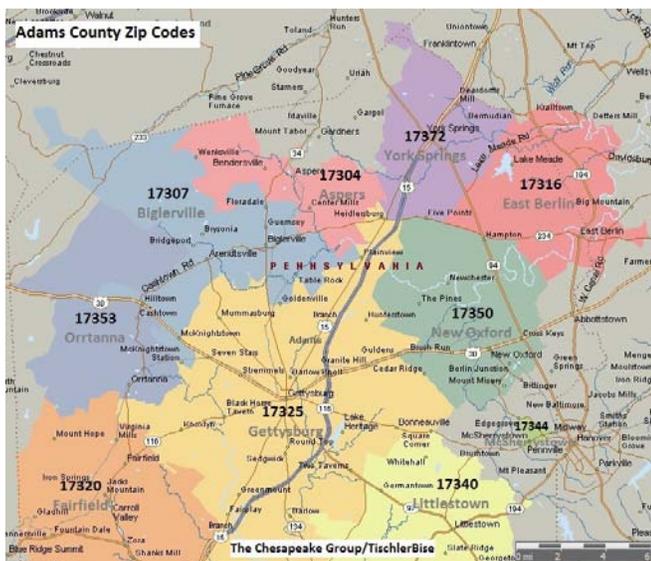
Table 2 – Underrepresented at the County Level (Continued)\*

NAICS Code	Industry
811113	Automotive transmission repair
811122	Automotive glass replacement shops
811191	Automotive oil change and lubrication shops
811192	Car washes
811212	Computer and office machine repair and maintenance
811412	Appliance repair and maintenance
811420	Reupholstery and furniture repair
812320	Dry-cleaning and laundry services (except coin-operated)
813910	Business associations
813930	Labor unions and similar labor organizations
<b>445299</b>	<b>All other specialty food stores</b>
<b>446130</b>	<b>Optical goods stores</b>
<b>446199</b>	<b>All other health and personal care stores</b>
<b>451140</b>	<b>Musical instrument and supplies stores</b>
551112	Offices of other holding companies
561720	Janitorial services
562991	Septic tank and related services
624120	Services for the elderly and persons with disabilities
811310	Commercial machinery repair and maintenance
812113	Nail salons

\*Developed by The Chesapeake Group, Inc., 2013.

In Table 2, there are identified clusters of business activity for which there is a reasonable range of gaps. These clusters include: contractors (in bold typeface); manufacturing and wholesale activity (in black background and white lettering); health care/medical services activity (in white lettering and gray background); and retail (in black lettering and light grey shading).

## Adams County Zip Code Level NAICS Comparative/Gap Methodology Cluster Analysis



The cluster analysis was also performed at the zip code level as well. There were ten zip codes for which this level of analysis was performed. It included all zip codes for which the majority or significant share of the mass and population is within Adams County. It is noted that some zip codes may cross county boundaries.

As was the case for the county level analysis, criteria were utilized to define similar zip codes around the country. Those criteria follow.

# Market Assessment & Economic Development Opportunities

- ✓ The population had to be similar to that associated with the respective zip code since demand for many goods and services are ultimately dependent largely upon the size of the market served.
- ✓ The number of households had to be similar to that associated with the respective zip code since demand for many goods and services are ultimately dependent largely upon the size of the market served.
- ✓ The selected zip codes all have median household incomes that are comparable to the respective zip code.
- ✓ The zip codes had to have or be in the immediate vicinity of non-resident or visitor attractions.
- ✓ Transportation and highway access had to be similar.
- ✓ Climate had to be reasonably similar.

Each zip code was compared to seven zip codes with under-representation defined in a similar manner to that defined at the county level. The following is the synopsis of the under-represented activity by zip code for all defined Adams County zip codes. In and of themselves, the tables define activity for which there are “gaps” in the particular zip code.

## 17304, Aspres

For zip code 17304 (Aspres), the following are identified zip codes meeting the criteria.

01235, Hinsdale, MA	23069, Hanover, VA
04008, Bowdoinham, ME	43516, Deshler, OH
12154, Schaghticoke, NY	62550, Moweaqua, IL
21651, Millington, MD	

The following table contains the under-represented business activity.

*Table 3 – Underrepresented at Zip Code 17304 Level\**

NAICS Code	Industry Code Description
236115	New single-family general contractors
445110	Supermarkets and other grocery (except convenience) stores
522110	Commercial banking
561730	Landscaping services
813110	Religious organizations

\*Developed by The Chesapeake Group, Inc., 2013.

## 17307, Biglerville

For zip code 17307 (Biglerville), the following are identified zip codes meeting the criteria.

03222, Bristol, NH	43526, Hicksville, OH
14530, Perry, NY	46160, Norgantown, IN
22727, Madison, VA	47635, Rockport, IN
23487, Windsor, VA	

# Market Assessment & Economic Development Opportunities

The following table contains the under-represented business activity.

*Table 4 – Underrepresented at Zip Code 17307 Level\**

NAICS Code	Industry Code Description
441110	New car dealers
441120	Used car dealers
441310	Automotive parts and accessories stores
444220	Nursery, garden center, and farm supply stores
445110	Supermarkets and other grocery (except convenience) stores
446110	Pharmacies and drug stores
447110	Gasoline stations with convenience stores
452990	All other general merchandise stores
517110	Wired telecommunications carriers
524210	Insurance agencies and brokerages
531210	Offices of real estate agents and brokers
532230	Video tape and disc rental
541211	Offices of certified public accountants
561720	Janitorial services
621111	Offices of physicians (except mental health specialists)
624410	Child day care services
722110	Full-service restaurants
811121	Automotive body, paint, and interior repair and maintenance
812210	Funeral homes and funeral services

\*Developed by The Chesapeake Group, Inc., 2013.

## 17316, East Berlin

For zip code 17316 (East Berlin), the following are identified zip codes meeting the criteria.

03244, Hillsborough, NH  
 04093, Buxton, ME  
 22712, Bealeton, VA  
 44231, Garrettsville, OH

52742, De Witt, IA  
 53010, Campbellsport, WI  
 60401, Beecher, IL

The following table contains the under-represented business activity.

*Table 5 – Underrepresented at Zip Code 17316 Level*

NAICS Code	Industry Code Description
238210	Electrical contractors and other wiring installation contractors
238220	Plumbing, heating, and air-conditioning contractors
238320	Painting and wall covering contractors
238350	Finish carpentry contractors
441310	Automotive parts and accessories stores
484220	Specialized freight (except used goods) trucking, local
531110	Lessors of residential buildings and dwellings
561730	Landscaping services
621320	Offices of optometrists
624410	Child day care services
722410	Drinking places (alcoholic beverages)
811310	Commercial machinery repair and maintenance
812210	Funeral homes and funeral services

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

## 17320, Fairfield

For zip code 17320 (Fairfield), the following are identified zip codes meeting the criteria.

01432, Ayer, MA	46701, Albion, IN
03220, Belmont, NH	53040, Kewaskum, WI
08312, Clayton, NJ	62260, Millstadt, IL
43105, Baltimore, OH	

The following table contains the under-represented business activity.

*Table 6 – Underrepresented at Zip Code 17320 Level*

NAICS Code	Industry Code Description
236115	New single-family general contractors
236118	Residential remodelers
236220	Commercial and institutional building construction
238140	Masonry contractors
238910	Site preparation contractors
441310	Automotive parts and accessories stores
444130	Hardware stores
445310	Beer, wine, and liquor stores
447110	Gasoline stations with convenience stores
524210	Insurance agencies and brokerages
541940	Veterinary services
624410	Child day care services
722211	Limited-service restaurants
811121	Automotive body, paint, and interior repair and maintenance

\*Developed by The Chesapeake Group, Inc., 2013.

## 17325, Gettysburg

For zip code 17325 (Gettysburg), the following are identified zip codes meeting the criteria.

03431, Keene, NH	47712, Evansville, IN
40004, Bardstown, KY	54911, Appleton, WI
44460, Salem, OH	68901, Hastings, NE
46947, Logansport, IN	

The following table contains the under-represented business activity.

# Market Assessment & Economic Development Opportunities

Table 7 – Underrepresented at Zip Code 17325 Level\*

NAICS Code	Industry Code Description
221210	Natural gas distribution
238110	Poured concrete foundation and structure contractors
238220	Plumbing, heating, and air-conditioning contractors
238350	Finish carpentry contractors
327331	Concrete block and brick manufacturing
332710	Machine shops
423510	Metal service centers and other metal merchant wholesalers
423830	Industrial machinery and equipment merchant wholesalers
441320	Tire dealers
443111	Household appliance stores
443112	Radio, television, and other electronics stores
444110	Home centers
447190	Other gasoline stations
453310	Used merchandise stores
453991	Tobacco stores
484121	General freight trucking, long-distance, truckload
517210	Wireless telecommunications carriers (except satellite)
522120	Savings institutions
522291	Consumer lending
522390	Other activities related to credit intermediation
523120	Securities brokerage
524210	Insurance agencies and brokerages
531190	Lessors of other real estate property
531311	Residential property managers
531312	Nonresidential property managers
541512	Computer systems design services
541921	Photography studios, portrait
541940	Veterinary services
621320	Offices of optometrists
621340	Offices of specialty therapists
621420	Outpatient mental health and substance abuse centers
621610	Home health care services
623210	Residential mental retardation facilities
623312	Homes for the elderly
811122	Automotive glass replacement shops
811191	Automotive oil change and lubrication shops
811192	Car washes
811310	Commercial machinery repair and maintenance
812910	Pet care (except veterinary) services

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

## 17340, Littlestown

For zip code 17340 (Littlestown), the following are identified zip codes meeting the criteria.

01475, Winchendon, MA	43351, Upper Sandusky, OH
24521, Amherst, VA	45833, Delphos, OH
28103, Marshville, NC	48768, Vassar, MI
40108, Brandenburg, KY	

The following table contains the under-represented business activity.

*Table 8 – Underrepresented at Zip Code 17340 Level*

NAICS Code	Industry Code Description
238910	Site preparation contractors
441110	New car dealers
441310	Automotive parts and accessories stores
442110	Furniture stores
445120	Convenience stores
447110	Gasoline stations with convenience stores
484110	General freight trucking, local
511110	Newspaper publishers
517110	Wired telecommunications carriers
522110	Commercial banking
522130	Credit unions
524210	Insurance agencies and brokerages
531210	Offices of real estate agents and brokers
541110	Offices of lawyers
541370	Surveying and mapping (except geophysical) services
621310	Offices of chiropractors
623210	Residential mental retardation facilities
721110	Hotels (except casino hotels) and motels
722110	Full-service restaurants
722211	Limited-service restaurants
811111	General automotive repair

\*Developed by The Chesapeake Group, Inc., 2013.

## 17344, McSherrystown

For zip code 17344 (McSherrystown), the following are identified zip codes meeting the criteria.

49870, Norway, MI	66757, Neodesha, KS
62075, Nokomis, IL	66846, Council Grove, KS
62806, Albion, IL	67449, Herington, KS
65052, Linn Creek, MO	

# Market Assessment & Economic Development Opportunities

The following table contains the under-represented business activity.

*Table 9 – Underrepresented at Zip Code 17344 Level\**

NAICS Code	Industry Code Description
238220	Plumbing, heating, and air-conditioning contractors
425120	Wholesale trade agents and brokers
441310	Automotive parts and accessories stores
445110	Supermarkets and other grocery (except convenience) stores
447110	Gasoline stations with convenience stores
484121	General freight trucking, long-distance, truckload
541110	Offices of lawyers
561730	Landscaping services
621210	Offices of dentists
623110	Nursing care facilities
813110	Religious organizations

\*Developed by The Chesapeake Group, Inc., 2013.

## 17350, New Oxford

For zip code 17350 (New Oxford), the following are identified zip codes meeting the criteria.

12586, Walden, NY

13827, Owego, NY

45885, Saint Marys, OH

46582, Warsaw, IN

47620, Mount Vernon, IN

49345, Sparta, MI

56082, Saint Peter, MN

The following table contains the under-represented business activity.

*Table 10 – Underrepresented at Zip Code 17350 Level\**

NAICS Code	Industry Code Description
236210	Industrial building construction
237130	Power and communication line and related structures construction
238140	Masonry contractors
238210	Electrical contractors and other wiring installation contractors
444220	Nursery, garden center, and farm supply stores
446110	Pharmacies and drug stores
447110	Gasoline stations with convenience stores
453110	Florists
511110	Newspaper publishers
522120	Savings institutions
522130	Credit unions
523120	Securities brokerage
524210	Insurance agencies and brokerages
531210	Offices of real estate agents and brokers
541110	Offices of lawyers
541211	Offices of certified public accountants
541330	Engineering services
541940	Veterinary services
561720	Janitorial services
621210	Offices of dentists
623110	Nursing care facilities
713910	Golf courses and country clubs
713950	Bowling centers
812112	Beauty salons

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

## 17353, Orrtanna

For zip code 17353 (Orrtanna), the following are identified zip codes meeting the criteria.

01436, Baldwinville, MA	43314, Caledonia, OH
04061, North Waterboro, ME	44085, Rome, OH
12809, Argyle, NY	47283, Westport, IN
27233, Climax, NC	

The following table contains the under-represented business activity.

*Table 11 – Underrepresented at Zip Code 17353 Level\**

NAICS Code	Industry Code Description
236118	Residential remodelers
447110	Gasoline stations with convenience stores

\*Developed by The Chesapeake Group, Inc., 2013.

## 17372, York Springs

For zip code 17372 (York Springs), the following are identified zip codes meeting the criteria.

03839, Rochester, NH	43532, Liberty Center, OH
13456, Sauquoit, NY	47161, New Salisbury, IN
37191, Woodlawn, TN	47246, Hope, IN
43517, Edgerton, OH	

The following table contains the under-represented business activity.

*Table 12 – Underrepresented at Zip Code 17372 Level\**

NAICS Code	Industry Code Description
722211	Limited-service restaurants
811121	Automotive body, paint, and interior repair and maintenance

\*Developed by The Chesapeake Group, Inc., 2013.

## Select Manufacturing Opportunities Review

An analysis of manufacturing was performed. Industries that would be compatible or complementary to those in Adams County were identified. The following are those for which there are the greatest opportunities based on the analysis and industry trends.

### Athletic & Sporting Goods Manufacturing

Companies involved in the industry purchase raw materials and rework them into sporting and athletic goods. Products such as apparel and footwear are excluded. Industry products include balls used for sports, such as baseball and basketball; and outdoor equipment, such as hunting and camping equipment. These products are then sold to wholesalers and retailers.

Participation in the corresponding sport activities affects the industry due to the specialized nature of these products. The athletic and sporting goods manufacturing industry declined in the five years to 2013 due to falling demand. A rise in imports of sporting goods into the United States and the "Great Recession" diminished consumer demand for industry products. Industry revenue is estimated at \$8.9 billion in 2013. A reversal has begun as revenue increased by 0.3% from 2012 to 2013.

Retail and wholesale revenue will see a return as economic recovery builds. Moreover, with an increasing trend towards health consciousness, consumers will be more likely to purchase industry products. Demand for the athletic and sports equipment is therefore predicted to increase and revenue is projected to reach \$9.3 billion by 2018. This includes a 2.2% increase in 2014.

### Billboard & Sign Manufacturing

Companies in this industry manufacture billboards, scoreboards, retail store signs, and transit station advertising displays. Industry products include neon signs, digital billboards, non-electric signs, and video screens. Products do not include bus or taxi advertising, outdoor kiosks, or phone booth advertising. It also excludes advertising or displays produced from printing paper or paperboard.

The billboard and sign manufacturing industry suffered significant declines during the Great Recession. Industry revenue is estimated to decline at an annual rate of 3.4% in the five years to 2013 to \$11.5 billion.

The revenue of the billboard and sign manufacturing industry peaked at \$14.4 billion in 2007. This includes a significant drop of 17.5% in 2009. Industry operators cut costs and some companies went under. An estimated several hundred billboard and sign manufacturers closed in 2009 alone. The number of manufacturers operating in the industry declined to 5,828 in 2013. However, the future looks more optimistic. Advertising budgets have already started to increase, with outdoor advertising expenditures on the rise as well. Accordingly, industry revenue is projected to increase 0.2% in 2013.

Revenue will continue to grow in the next five years. Increases in total marketing expenditures are expected to spur industry revenue to \$12.9 billion in the five years to 2018. Additionally, advertisers will continue demanding more digital billboards and digital displays that offer higher margins. Companies with robust digital product offerings will lead the industry's recovery because of digital products' clarity and ability to target specific demographics.

## Brand Name and Generic Pharmaceutical Manufacturing

Operators in this industry develop prescription and over-the-counter products used to prevent or treat illnesses in humans and animals. Industry products do not include nutritional supplements or cosmetic products.

This industry remained largely resilient to the Great Recession, although overall revenues in the “brand named” component have declined. Industry revenue is estimated to be \$165 billion in 2013. The industry currently faces mounting competition from generic pharmaceutical products. Healthcare reform is predicted to promote sales as more people gain prescription drug coverage in 2014. Industry revenue is projected to reach \$182.5 billion in 2018. However, the average operating profit margin is expected to decrease to 19.0% of revenue in 2018. This is a result of the industry's agreement to pay \$84.8 billion in taxes and discounts over the next 8 years to 2021 as part of the 2010 healthcare reform bill. Industry operators are predicted to continue consolidating and reducing costs to remain profitable. Employment numbers are projected to decrease to 193,255 employees by 2018. Generic pharmaceutical manufacturing is expected to continue to expand significantly over the next twenty years.

## Machine Shop Services

Entities in the machine shop service industry shape raw materials into specified forms and sizes utilizing tools such as lathes, drill presses, milling machines, and grinders. The processes involved in metal product fabrication all involve machining. Industry operators may also be involved with machining plastic and composite materials.

This industry is unique among manufacturers in that its revenue has grown solidly in the five years to 2013. This growth is a result of the numerous products that require computer numerical control (CNC) machining. This includes products sold in the defense and medical markets which were resilient in the face of the Great Recession. Industry revenue has grown to \$53.1 billion in 2013.

The technological advancements in machining are essentially driven by the defense and aerospace markets. These markets require parts made of light materials, produced to extremely tight tolerances, and formed into complex shapes. Companies in the industry serving these markets have therefore increased their investment in CNC machines – leading to increased automation and precision in the past five years.

Industry operators will focus more resources to satisfy growing demands from manufacturers in industries such as commercial aircraft manufacturing and metal forging in the five years to 2018. Demand from the medical device manufacturer industry is also predicted to increase significantly. This in turn will boost the demand for micro-machined products. Industry revenue is thus estimated to grow to \$70.2 billion at an annualized rate of 5.7% by 2018.

## Medical Instrument & Supply Manufacturing

Companies in the medical instrument and supply manufacturing industry mainly research, develop, and produce medical, surgical, ophthalmic and veterinary instruments and apparatus. Products include anesthesia apparatus, syringes, surgical clamps, blood transfusion equipment, catheters, and medical thermometers. Industry products do not include electro-medical and electrotherapeutic apparatus, non-medical thermometers, laboratory instruments, X-ray apparatus, or ophthalmic goods.

# Market Assessment & Economic Development Opportunities

This \$91.7-billion industry remained resilient during the Great Recession, with a positive forecast to continue growing in the five years to 2018. Increased public and private health spending, continued innovations and new product introductions have caused demand for medical instruments and supplies to rise. The industry has also been helped by favorable demographic trends.

Larger companies are expected to increase product innovation going forward. This can be attributed to industry operators obtaining substantial research and development budgets. Despite revenue growth, the number of industry operators has declined to 15,508 firms in the five years to 2013. Through consolidation efforts, industry participants were able to sustain operating profit margins of 10.7%.

Revenue is projected to grow to a total of \$110.9 billion by 2018. Demand for industry products will be bolstered by healthcare reform, increasing the number of physician visits which will require more medical equipment.

## Drone Development

One of the most significant growth industries in the country that would fit with Adams County's location would be drone manufacturing. While most people think of drones as unmanned aircraft utilized by the military for surveillance or attack purposes; they are being utilized and deployed by both the public and private sector in many ways. Furthermore, the size of the drones varies significantly as do the materials utilized.

In fact:

1. Local government police forces are utilizing drones now throughout many communities around the country.
2. Mapping companies are utilizing them for high resolution photography purposes.
3. They are being used in the Florida Keys to track areas of mosquito larvae concentration.
4. They are being employed to gain knowledge of wildfire movements.
5. The agriculture industry is increasing utilizing the drones to follow potential migrations of pests and disease.
6. This year they were employed to assist with defining the strength, wind speeds, paths and other factors associated with tropical storms.
7. They are being used to locate distressed or lost hikers in mountain and forest areas.
8. They are being employed to track reforest generation success.
9. They are being used to track wildlife.

The amount of production and other related activity associated with this emerging "vehicle" can be argued to grow exponentially in the foreseeable future.

## Plastic Products Miscellaneous

Industry operators are comprised of companies that manufacture plastic products that include house wares, appliance parts, building materials, motor vehicle parts, and resilient floor coverings. Industry products exclude plastic film, pipes, pipe fittings, sheet, bags, foam products profile shapes, laminates, and bottles.

# Market Assessment & Economic Development Opportunities

The plastic products miscellaneous manufacturing industry was greatly impacted by the Great Recession, resulting in declines in demand from almost all of the industry's downstream markets. This forced industry operators to shut down factories and cut employment. However, revenue is predicted to return to pre-recession levels, growing to \$90.1 billion in 2013. Industry product demands will continue to rise in the future as consumer spending picks up. The industry is thus expected to experience revenue growth to \$97.4 billion in the five years to 2018. The U.S. currently imports nearly half of its plastic products from China. This will probably change with emergence of 3D or additive manufacturing.

## **Screw, Nut and Bolt Manufacturing**

Manufacturers in this industry produce metal fastening products, which is split into two groups based on type. Metal bolt, nut, screw, rivet, washer and other industrial fastening products are manufactured to an industry standard and are intended for a wide market. Precision fastening products on the other hand are custom made exclusively for a project or customer.

The screw, nut and bolt manufacturing industry has experienced slowed productivity, growing demand for imports, and increasing competition in the five years to 2013. However, increases in production will cause the 2013 profit margins to grow to about 5.8% of revenue. Industry revenue is estimated \$26.5 billion.

The industry's revenue relies on both the manufacturer and construction markets. When the housing market became stagnant, there was less demand for fasteners. Demand dropped during the Great Recession for major household appliances and similar products, which account for the bulk of industry revenue. However, production in these markets grew as the economy began its path to recovery in 2010, revitalizing demand for fastener manufacturers. Higher production levels will lead to rapid growth over the next five years. Industry manufacturers will progressively shift toward precision turned products in an effort to counter increasing imports. Foreign companies have not yet entered this specialized segment so it presents a potential for the industry. Industry revenue is projected to grow to \$28.0 billion in the five years to 2018.

## **Additive Manufacturing or 3D Printing and Applications**

Many business professionals use the terms "additive manufacturing" and "3D printing" interchangeably. Additive manufacturing is receiving unprecedented attention from the mainstream media, investment community, and national governments around the world. This attention reached a pinnacle when 3D printing was mentioned by President Obama in his February 2013 State of the Union address.

Additive manufacturing is a breakthrough production technology that enables functional end-products or product features to be grown from materials such as conductive inks and metal powders in a layer-wise manner. The approach is inherently more efficient and flexible than subtractive manufacturing methods; and the benefits are compelling in terms of reduced manufacturing and material costs, reduced process time, reduced environmental impact and improved product performance.

Replacing 20<sup>th</sup> century manufacturing tool and die methodologies, researchers are developing a high-volume process for manufacturing superhydrophobic (SHP) nanostructured surfaces to enhance water repellency, boiling heat transfer and condensation heat transfer. The image transfer can be achieved via plastic injection molding, stamping, forging, and dye casting and pressing. Hydrophobic or water repelling surfaces are increasingly important in applications to reduce corrosion, drag, biofouling and other undesirable effects of water exposure.

# Market Assessment & Economic Development Opportunities

Additive manufacturing technologies encompass laser melting, and injection molding technologies. Laser melting process is an emerging manufacturing technology with a presence in the medical (orthopedics) industry as well as the aerospace and high technology engineering and electronics sectors. Laser melting is a digitally driven additive manufacturing process using focused laser energy to fuse metallic powders into 3D objects. Injection molding machines are suited to either short series production using resin tooling, or volume production of small shot components less than 12 grams depending on the model chosen.

Development of complex and high-value metal parts made by additive manufacturing is also evolving. Corporate owner GE has announced its intention to produce fuel injector assemblies for its next-generation LEAP jet engine by additive manufacturing. The company’s aviation division also plans to use 3D printing to produce the titanium leading edges for the LEAP engine’s fan blades.

European companies are leading the way in manufacturing of metal powder bed fusion systems used dental copings. A coping is the metal structure for dental crowns and bridges. Acetabular (hip) cups have been manufactured using electron beam melting powder bed fusion systems. These are standard, off-the-shelf products that come in a range of sizes. More than 30,000 of these parts have been implanted into patients.

Other companies are focused on the accessibility and rapid adoption of desktop 3D printers. There are now significant collections of downloadable digital designs for making physical objects. The app numbers are expected to grow exponentially.

Products and apps are increasingly used by professionals, including engineers, designers, architects; manufacturers; entrepreneurs; and individuals for business and personal applications.

## Research & Development Opportunities Review

Farming and related product processing activity is the major industry in Adams County. The following is a list of farming entities in Adams County or the immediate surrounding area.

*Table 13 - Adams County's Area Farm Entities\**

Name	Address	City	Zip Code
At The Black Horse Farm	7568 Lincoln Highway	Abbottstown	17301
Balady Farm, LLC	380 Moulstown Rd	Abbottstown	17301
Circle C Farms	7475 Lincoln View Rd	Abbottstown	17301
Clark P Craumer	65 Protectory Rd	Abbottstown	17301
Eldon R Martin	7781 Camp Ernie Rd	Abbottstown	17301
Hoffheins Farm	138 Moulstown Rd	Abbottstown	17301
Jimmie Linebaugh	993 Pine Run Rd	Abbottstown	17301
Lynn Wolf	7414 Lincoln Hwy	Abbottstown	17301
Meadowlark Farm	1075 Brough Rd	Abbottstown	17301
Perfect As Usual Farm	728 Abbotstown Pike	Abbottstown	17301
Richard Boyer	295 Saint Marys Rd	Abbottstown	17301
Veridas Farm	84 Moulstown Rd	Abbottstown	17301

# Market Assessment & Economic Development Opportunities

*Table 13 - Adams County's Farm Entities Continued\**

Name	Address	City	Zip Code
Walnut Meadow Farm	65 Protectory Rd	Abbottstown	17301
William Frey	1004 Route 194 N	Abbottstown	17301
Ber-Creek Farm	344 Lobaugh Rd	Aspers	17304
Creekview Farms, LLC	16 First St	Aspers	17304
John Heller	1035 Center Mills Rd	Aspers	17304
Larry Gantz	1858 Old Carlisle Rd	Aspers	17304
Moonlight Valley Farm	540 Bull Valley Rd	Aspers	17304
Point of View Farm	1831 Coon Rd	Aspers	17304
Riley's Family Farm	821 Company Farm Rd	Aspers	17304
KJM Farm & Gardens	55 A Gablers Rd	Aspers	17304
Critter Hill Farm LLC	224 Quaker Run Rd	Biglerville	17307
Culp's Farm	145 Short Cut Rd	Biglerville	17307
Ddb Ranch	703 Flohrs Church Rd	Biglerville	17307
Donald G Heckenluber Farm	413 Heckenluber Rd	Biglerville	17307
Donald Stine	195 Punch Rd	Biglerville	17307
Herbert Lady Farm	35 Beecherstown Rd	Biglerville	17307
Leslie Gait	807 Beecherstown Rd	Biglerville	17307
MacBeth Farm LLC	474 Celebration Hill Rd	Biglerville	17307
Oyler's Organic Farm Market	400 Pleasant Valley Rd	Biglerville	17307
Swartz	232 N High St Ste A	Biglerville	17307
Vicky L Mccleaf	104 W Guernsey Rd	Biglerville	17307
William H Kirk	2088 Table Rock Rd	Biglerville	17307
Wolf, Ray Clare Farm	463 Upper Temple Rd	Biglerville	17307
Apple Valley Creamery	541 Germany Rd	East Berlin	17316
Cicle Creek Holsteins	369 Bermudian Creek Rd	East Berlin	17316
Clearview Farm	128 Possum Hollow Rd	East Berlin	17316
Dairy Lane Hanoverians	674 Dairy Ln	East Berlin	17316
Don Boyer & Sons	7619 Jacob Mills Rd	East Berlin	17316
E C Lemmon Inc	6363 Carlisle Pike	East Berlin	17316
Everblossom Farm	6363 Carlisle Pike	East Berlin	17316
Gary Basehore	230 Germany Rd	East Berlin	17316
John Rohrer Farms	1344 Germany Rd	East Berlin	17316
Kevin S. Holtzinger	2490 E Berlin Rd	East Berlin	17316
Mummert Farms	693 Peepytown Rd	East Berlin	17316
Ray Kauffman Farm	43 Bemudian Church Rd	East Berlin	17316
Richard Alwine	240 Markle Run Rd	East Berlin	17316
Richard Jones	143 Ruppert Rd	East Berlin	17316
Rick Spahr	529 Anthony Rd	East Berlin	17316
Robby Sebright	1614 Germany Rd	East Berlin	17316

# Market Assessment & Economic Development Opportunities

*Table 13 - Adams County's Farm Entities Continued\**

Name	Address	City	Zip Code
Ronald Lescalleet	575 Wolf Rd	East Berlin	17316
Round Hill Dairy	6105 Carlisle Pike	East Berlin	17316
Stark Limousim Other Farm	2879 Lake Meade Rd	East Berlin	17316
Thomas Bross	315 Round Hill Rd	East Berlin	17316
Wayne & Clyde Trostle	3100 Lake Meade Rd	East Berlin	17316
Welsh Ponderosa Farm	5423 East Berlin Rd	East Berlin	17316
Kenneth L Brown	1875 Tract Rd	Fairfield	17320
Kevin Diehl	445 Carrolls Tract Rd	Fairfield	17320
Rose Yellow Ranch	205 Boyle Rd	Fairfield	17320
Roy W Crum Jr	164 Crum Rd	Fairfield	17320
Weikert's Livestock, Inc	721 Carrolls Tract Rd	Fairfield	17320
Highfield Hollow Farm	150 Hilltop Rd	Gardners	17324
Kay L Bupp	5694 Oxford Rd	Gardners	17324
Anropa Farms	4255 Carlisle Rd	Gardners	17324
Adams Dairy Farm	2850 Mummasburg Rd	Gettysburg	17325
Allen Weikert	2559 Fairfield Rd	Gettysburg	17325
Anna Myers	425 Granite Station Rd	Gettysburg	17325
Browns Ranch Inc	180 Redding Ln	Gettysburg	17325
Carl Woerner Farm	1195 Herrs Ridge	Gettysburg	17325
Chadwick D Waddell	318 Hunterstown Rd	Gettysburg	17325
Circle Oak Farm	825 Two Tavern Rd	Gettysburg	17325
Cornerstone Farm	305 Crooked Creek Rd	Gettysburg	17325
Craig Yingling	244 Hoffman Home Rd	Gettysburg	17325
Dale Bendig	199 Woodside Rd	Gettysburg	17325
David Keller	2315 Old Harrisburg Rd	Gettysburg	17325
Dumas Manor Farms Llc	1650 Pumping Station Rd	Gettysburg	17325
Farms Circle B	1875 Herrs Ridge Rd	Gettysburg	17325
Floyd Huff	244 Hoffman Home Rd	Gettysburg	17325
Getty's Acre Farm	555 Rentzel Rd	Gettysburg	17325
Glen Afton Farms	530 Spook Ln	Gettysburg	17325
Golden Triangle Farm	1402 Goldenville Rd	Gettysburg	17325
Goldenville Farm Inc	650 Goldenville Rd	Gettysburg	17325
Granite Farm	1390 Hanover Rd	Gettysburg	17325
Great Heights Farm LLC	55 Two Tavern Rd	Gettysburg	17325
Green Manor Turf Farm Inc	1598 Mummasburg Rd	Gettysburg	17325
Hawn	886 Goldenville Rd	Gettysburg	17325
Heart Felt Farm	270 Apple Way Rd	Gettysburg	17325
Helen Hackensmith	1016 Storms Shore Rd	Gettysburg	17325
Hill Bridge Farm	2476 Biglerville Rd	Gettysburg	17325

# Market Assessment & Economic Development Opportunities

Table 13 - Adams County's Farm Entities Continued\*

Name	Address	City	Zip Code
Hillcrest Dairy	764 Spook Ln	Gettysburg	17325
Hog Farm	418 Granite Station Rd	Gettysburg	17325
Jay Wolf	455 Willoughby Run Rd	Gettysburg	17325
Jobo Holstein Farm	200 Tall Oaks Rd	Gettysburg	17325
Kammerer Farm	101 Hunterstown Hampton Rd	Gettysburg	17325
Keiser, Michael Farmer	905 Low Dutch Rd	Gettysburg	17325
Lady's Center Mills Farm	2171 Heidlersburg Rd	Gettysburg	17325
Lagging Stream Farm	361 Barlow Rd	Gettysburg	17325
Lee Horst	1605 Goldenville Rd	Gettysburg	17325
Leo Redding	608 Crooked Creek Rd	Gettysburg	17325
Louis Barral	2636 Heidlersburg Rd	Gettysburg	17325
Mason Dixon Farms, Inc.	1800 Dixon Rd	Gettysburg	17325
Michael Danner	175 King Rd	Gettysburg	17325
Michael Riser	91 Whistler Rd	Gettysburg	17325
Milking Parlor	1800 Mason Dixon Rd	Gettysburg	17325
Mills Dairy Farm	2451 Hanover Rd	Gettysburg	17325
Mountain View Simmentals	665 Knoxlyn Rd	Gettysburg	17325
Pacaribe Farm	45 Sachs Rd	Gettysburg	17325
Rettland Farm	920 Barlow Two Tavern Rd	Gettysburg	17325
Richard Heflin	1857 Goldenville Rd	Gettysburg	17325
Rickety Bridge Farm	2700 Mummasburg Rd	Gettysburg	17325
Rock Creek Farms	420 Rock Creek Ford Rd	Gettysburg	17325
Roland Offutt	575 Russell Tavern Rd	Gettysburg	17325
Rosehill Farm	555 Pumping Station Rd	Gettysburg	17325
Roy Jr Weaner Farm	1650 Old Harrisburg Rd	Gettysburg	17325
Shirley L Rohrbaugh	450 Red Rock Rd	Gettysburg	17325
Susan Benner	230 Benner Rd	Gettysburg	17325
Symmes Farm	340 Good Intent Rd	Gettysburg	17325
Todd Durboraw	475 Chapel Rd	Gettysburg	17325
Viersma Wiebe	391 Barlow Greenmount Rd	Gettysburg	17325
Walter D Burel Farm	2804 Baltimore Pike	Gettysburg	17325
Wayne Rodgers	294 Zeigler Mill Rd	Gettysburg	17325
Wilbur F Martin	260 Weikert Rd	Gettysburg	17325
Woerner & Eiker Farms inc	1545 Black Horse Tavern Rd	Gettysburg	17325
Xanthus Farm	1225 Bon-ox Rd	Gettysburg	17325
Grove Brothers	675 Hostetter Rd	Hanover	17331
Angeline Haines	676 Feeser Rd	Littlestown	17340
Bernard Wiles	204 Basehoar Roth Rd	Littlestown	17340
Brian Bittle	189 Bittle Rd	Littlestown	17340

# Market Assessment & Economic Development Opportunities

Table 13 - Adams County's Farm Entities Continued\*

Name	Address	City	Zip Code
Brown's Valley Farm	295 Hickory Rd	Littlestown	17340
Connolly, Charles and Louise E	1550 White Hall Rd	Littlestown	17340
Conover, Benjy	3250 Baltimore Pike	Littlestown	17340
David Gladfelter	384 Honda Rd	Littlestown	17340
David Jeffcoat	282 Saint Lukes Rd	Littlestown	17340
Dawn to Dusk Holsteins	470 Orphanage Rd #A	Littlestown	17340
Diversity Farm	204 Ulricktown Rd	Littlestown	17340
Double El Farms Inc	4930 Baltimore Pike	Littlestown	17340
Eldon Snyder	724 White Hall Rd	Littlestown	17340
Epona Farm	451 Littlestown Rd	Littlestown	17340
Fred & Ritchie's Farm	110 Saint John Rd	Littlestown	17340
Fred Fissel	1115 Fish and Game Rd	Littlestown	17340
Gwendolyn Meyers	565 Kindig Rd	Littlestown	17340
Harry Hilbert	350 Hickory Rd	Littlestown	17340
Harvey Lee	645 Mengus Mill Rd	Littlestown	17340
Hay Arentz & Grain	661 Bollinger Rd	Littlestown	17340
Honda Acres Farm	170 Honda Rd	Littlestown	17340
John Updyke	165 Updyke Rd	Littlestown	17340
Kehr Family Farm	512 Basehoar Rd	Littlestown	17340
Leroy Basehoar	676 Christ Church Rd	Littlestown	17340
Paradox Farm, Llc	452 Mud College Rd	Littlestown	17340
Penn-Gate Farms	3825 Baltimore Pike	Littlestown	17340
Pine View Farm	874 Plunkert Rd	Littlestown	17340
Quarry Critters Alpaca Ranch	580 Basehoar Rd	Littlestown	17340
Ray E Duterrer	779 Hanover Pike	Littlestown	17340
Ray Reichart	892 Hickory Rd	Littlestown	17340
Raymond Baran	399 Teeter Rd	Littlestown	17340
Ric-Hill Acres, Inc	260 Sells Station Rd	Littlestown	17340
Robert Windisch	6225 Baltimore Pike	Littlestown	17340
Roger Eby	760 Line Rd	Littlestown	17340
Sheraton Breeding Farm Inc.	125 Basehoar School Rd	Littlestown	17340
Stoner's Farm	9 Stedtle Ave	Littlestown	17340
Tri J Farm	170 Mathias Rd	Littlestown	17340
William Parsons	1164 Teeter Rd	Littlestown	17340
Ray Grimes	495 Old 30	McKnightstown	17343
Beaver Run Farms	200 Beaver Run Rd	New Oxford	17350
Beevia Farm	2228 Oxford Rd	New Oxford	17350
Bruce Pohlman and Son Hog Farm	1687a Centennial Rd	New Oxford	17350
Buttercup Properties LLC	1115 Group Mill Rd	New Oxford	17350

# Market Assessment & Economic Development Opportunities

Table 13 - Adams County's Farm Entities Continued\*

Name	Address	City	Zip Code
Carrol Reynolds	101 Reynolds Rd	New Oxford	17350
Carson Lamberson	743 Oxford Rd	New Oxford	17350
Defred Miller & Sons	276 Miller Rd	New Oxford	17350
Dennis Wine	220 Pine Tree Rd	New Oxford	17350
E G Stock	359 Brickcrafter	New Oxford	17350
Fairmount Farms Inc	1525 Red Bridge Rd	New Oxford	17350
Francis J Pennings	971 Beaver Run Rd	New Oxford	17350
Gerald Sneeringer	1624 Oxford Rd	New Oxford	17350
Granite Ranch	200 Ginzle Rd	New Oxford	17350
Granite Ridge Farm	444 5 Point Rd	New Oxford	17350
James R and Mary D Ulrich	4030 Carlisle Pike	New Oxford	17350
Mark L Widerman	521 New Chester Rd	New Oxford	17350
Nelson Small	672 700 Rd	New Oxford	17350
Pineville Farms	4870 York Rd	New Oxford	17350
Ray Ruppert	361 Gooseville Rd	New Oxford	17350
Ray Schreiber	395 700 Rd	New Oxford	17350
Rhodes Enterprisesq	1216 Brickcrafter Rd	New Oxford	17350
Ruth A Houser	219 Tapeworm Rd	New Oxford	17350
Steve A Korver	383 Kilpatrick Rd	New Oxford	17350
Triple L Farms	818 Poplar Rd	New Oxford	17350
Zepddale Farms	1190 Hunters Hampton Rd	New Oxford	17350
Creedside Farm	135 Poplar Springs Rd	Orrtanna	17353
James Neiderer	378 Moritz Rd	Orrtanna	17353
Robert Martin	231 Hickory Bridge Rd	Orrtanna	17353
Beech Springs Farm	784 Mount Carmel Rd	Ortanna	17353
Clair Kump	451 Silo Rd	Ortanna	17353
Walk Le Dairy Farm	6898 Oak Ln	Thomasville	17364
Alapacaholic Acres	1601 Ridge Rd	York Springs	17372
Arrowood Farms	536 Bushey School Rd	York Springs	17372
Buttonwoods Farm	640 Buttonwood Rd	York Springs	17372
Dale Brough	186 Brought Rd	York Springs	17372
Double Creek Farm	158 Willow Lane	York Springs	17372
Harmony Hill Farm Inc	141 Bateman Rd	York Springs	17372
Herman Leer	9120 Carlisle Pike	York Springs	17372
Jacqueline M Bynaker	876 Lade Meade Rd	York Springs	17372
Janet K Ludwig	514 Latimore Valley Rd	York Springs	17372
K D Grain Poultry	190 Braggstown Rd	York Springs	17372
Kenneth Stevens	882 Gun Club Rd	York Springs	17372
Leroy Deputy	650 Latimore Valley Rd	York Springs	17372
Melvin S Worley	98 Braggtown Rd	York Springs	17372
Pleasant Acres Farm	1625 White Oak Tree Rd	York Springs	17372
Rose Ramblin' Farm	5160 Oxford Rd	York Springs	17372
Sai Fresh Farms	433 Fickes School Rd	York Springs	17372
Stock Farm	1095 Town Hill Rd	York Springs	17372

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

The following was researched using secondary sources. It is based on existing Adams County area's resources, including both cultivated/farmed and indigenous. The potentials include but are not limited to research and development for either identified needs within an industry or further exploration for current Adams County agricultural and manufacturing businesses.

The following general business activity categories are included.

- ✓ Commercial and small business farming.
- ✓ Agricultural dairy, animal husbandry and poultry manufacturing and processing.
- ✓ Additional research and development.

Opportunities include those associated with poultry (chickens, eggs, manufacturing and processing, environmental impact); fruits (apples, strawberries and blueberries); dairy (milk products and milk components and the cows health); animal husbandry (cattle, beef, sheep/lambs, goats, pharming); bees/beekeeping; and vegetables, including Adams County's crops of sweet corn, potatoes, pumpkins, soy beans, snap beans, tomatoes, cabbage, squash, peppers, cantaloupes and barley, corn, oats, rye, and wheat for grain.

## **Poultry**

Poultry genomics information can be used to improve all traits in the breeding program including live performance, critical feed conversion rate, health, disease resistance and welfare. With genomics, the exact genetic configuration of each bird, inherited from its parents, allows researchers to make more accurate selection decisions to improve all aspects of the bird's performance at every generation. For reproductive traits, their comparisons with conventional selection methods, can achieve between 30% to 50% extra genetic progress through increased selection accuracy.

An example of a commercial enterprise that produces the world's most efficient broiler - The Cobb500™ - which has reportedly the lowest feed conversion, best growth rate and an ability to thrive on low density, less costly nutrition.

According to a study on the environmental impacts of livestock on air, earth and water by the Food and Agriculture Organization; animal's waste contributes to climate change. Improvements in the feed efficiency have led to reductions in broiler waste production and also in gasses with climate change potential. Breeding for a sustainable future may require the continued addition and integration of more accurate and effective trait measurements in addition to new applications of molecular genetics and genomics to help solve the challenges of increasing both production and efficiency in broilers while helping to balance and improve bird health, animal well being and the environment.

In the manufacturing process, improved primary screening of poultry wastewater offers not only a potential environmental improvement but also ample opportunity for reducing overall wastewater costs. Researchers have been addressing methods to improve solids separation performed by primary and secondary mechanical screens with a current research focus on smaller sieve sizes. Researchers are also considering ways to enable water reuse and recycling. Screens used in poultry processing are internally fed rotating drums with fine openings that are constantly sprayed. An ongoing challenge is developing cost-effective technologies that achieve needed physical, chemical, or micro-biological improvements in reuse water.

# Market Assessment & Economic Development Opportunities

A collaborative university project is investigating whether the birds' volubility can provide clues to how healthy and comfortable they are. Recent research at the University of Connecticut's Department of Animal Science indicates it is indeed possible to differentiate how the birds react to various conditions based on their vocalizations. Temperature sensors might report things are fine; but the birds could be telling that they think it's a bit too warm or other changes have occurred to make the conditions less than ideal.

Poultry researchers and nutritionists are looking for viable alternative feed additives, since conventional supplements have been criticized for their potential negative impact on the food chain. Garlic is one potential feed supplement which has been reported as having a wide range of beneficial effects on the production performance and physiological biochemistry of broilers and laying hens.

A study by the National Antibiotic Resistance Monitoring System showed that 88% of chicken breasts are contaminated with e.coli. Once ingested, it moves from the GI tract causing women's urinary tract infections. Clusters of women are being contaminated with the same drug-resistant strains of e.coli, the very same strains of e.coli found in contaminated poultry. Confirming and mitigation research is still needed.

Efficient deboning is paramount to optimizing poultry's production yield, maximizing the amount of meat removed from a chicken frame while reducing the presence of bones. Many processors evaluate the efficiency of their deboning lines through scraping, which is both time consuming and potentially inaccurate for getting a consistent yield estimation. A new automated vision system for estimating yield loss by correlating image characteristics with the amount of meat left on a frame is being developed. Employing an illuminated cone and sophisticated software algorithms, the Cone Line Screening System can make yield measurements in under a second and has at least a 90% correlation with yield measurements performed manually.

Another advanced computer-aided production method employed is fixed automation combined with specialized robotics and perception techniques. Combined with robotics and manipulation research, current studies will enable advanced robotics platforms for the next generation of poultry processing. There is still additional research potential for improved robotic manufacturing processes, which can be studied and developed by Penn State's Agricultural and Biological Engineering Technology.

Since each plant goes through a thorough cleaning each day, there are standard pre-operation ("pre-op") procedures and inspections required before a plant begins production each day. Not completing the pre-op in a timely manner or failing an inspection can lead to a delayed start-up and a shortened work day. A Penn State Agricultural and Biological Engineering research project could develop methodologies to improve the pre-op procedures speed and increase productivity.

## **Fruits**

Adams County has previously ranked fourth in the nation and first in Pennsylvania for apple production. Major other fruit crops produced in the region are peaches, cherries, nectarines, apricots, plums and pears, strawberries, blueberries and raspberries.

There is a growing prospect for apples and its juice. A new, healthier "chocolate" product has the benefit of apple cranberry or orange juice. This presents a new product category for existing Adams County apple juice producers. The "fruit-juice-infused" chocolate technology would allow manufacture of the sweets with fruit juice replacing up to 50% of the fat. The juice is in the form of micro-bubbles that help chocolate retain the lush, velvety "mouth-feel" and texture that is firm and snappy to the bite. The process also prevents "sugar bloom," the unappetizing white film that coats the surface of chocolate that has been on the shelf for a while. The technology works with dark, milk and white chocolate and has been used successfully at the University of Warwick in the United Kingdom.

# Market Assessment & Economic Development Opportunities

The apple has also proven ability to combat disease. It appears no matter what part of the apple studied, it has anti-tumor properties. Apple cider vinegar has been found to contain an anti-tumor compound which results from the fermentative process. Apple consumption has been the subject of colorectal cancer risk reduction studies.

Other cancers that apple constituents have been studied to kill in pre-clinical research include the following.

- ✓ Liver Cancer: apple juice, apple pectin and apple peel has been experimentally confirmed to kill liver cancer.
- ✓ Breast Cancer: apples have been found to both prevent and to suppress mammary cancers in the animal models.
- ✓ Multi-Drug Resistant Cancer: carotenoids extracted from apple have been found to inhibit drug resistant cancer cell line proliferation.
- ✓ Esophageal Cancer: an apple-derived procyanidin flavonoid has been found to suppress esophageal cancer.
- ✓ Stomach Cancer: apple constituents may prevent stomach cancer through their inhibition of *Helicobacter pylori*, one of the main infectious agents linked to both ulcer and gastric cancer. The apple procyanidin has also been studied for its ability to directly induce programmed cell death within stomach cancer cells.

Apples also reduce the risk of cancer through their ability to remove carcinogenic radioisotopes that have accumulated in our bodies as a result of the fallout from nuclear weapons, depleted uranium munitions, and nuclear energy and disaster-associated pollution, e.g. Chernobyl and Fukushima. Significant reductions were noted in as short a time period as 16 days. Apple pectin has even been found to prevent the most deadly and entirely man-made radioisotope, Plutonium-239, from absorbing in the gastrointestinal tract of animals fed it.

The black cutworm pest species drives aggressive insecticide use in spring and colonizes Pennsylvania from southern states on spring storm fronts. A new, stronger bio-insecticide is being developed through bio-ballistics which could be launched by late 2014. Bio-insecticides have become a good option to control the pest, as they only affect the insect directly without any risk for the crop or to human beings, unlike chemical insecticides which can be highly toxic. This new methodology is aimed at the Cabbage Looper pest. However, this successful research could lead to a solution for the cut worm pest as well.

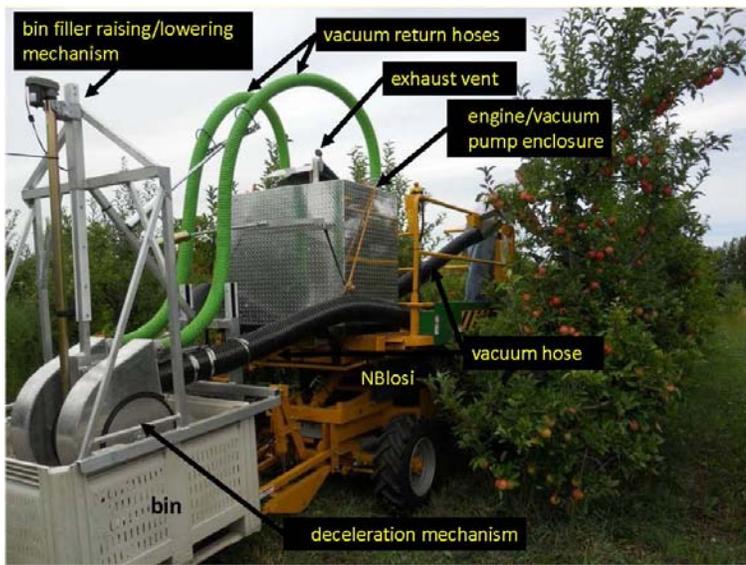
There is new work on transferring wild strawberry genes to domesticated berries. The strawberry has a huge wealth of wild germplasm and traits in North America. Researchers have identified the source of genes for high cyanidin, "red color" gene, and content from a strawberry that grows wild in the coast of Oregon. Using those genetic markers, breeders can integrate such wild traits into cultivated strawberry species.

Strawberries grown for processing need to be concerned with how they freeze and thaw in the product and how they taste in ice cream. New genetic tools will allow breeders to select parents or seedlings with desirable traits eliminating the typical time-consuming, expensive in-field, hand selection processes.

Modern strawberry varieties are highly dependent on soil disinfestations to maximize yields. This makes it difficult to find non-fumigant alternatives to methyl bromide. In-kind non-chemical alternatives to MB, include, but are not limited to: solarization, steaming, crop rotation, IPM (Integrated Pest Management), bio-fumigation, biological control, PGPRS mycobacterium, and electromagnetic radiation.

# Market Assessment & Economic Development Opportunities

Climate change is leading to a longer growing season, with projections of nearly three and five weeks lengthening. It is likely that Pennsylvania's precipitation climate will become more extreme in the future, with longer dry periods and greater intensity of precipitation when it occurs. Pennsylvania farmers are likely to adapt to climate change by changing the types and varieties of fruits and vegetables grown. Pennsylvania wineries may choose to replace some of their Native American grape varieties with higher-value European varieties.



Fruit harvesting has long been done largely by hand in Adams County and elsewhere. The debate over immigration, guest worker programs, and restrictions in this country is increasingly complicated and has impacted fruit and other related farming. Because of these issues and rising cost factors, there is growing research and experimentation into mechanization of fruit harvesting. A number of companies are deploying equipment on a test basis. There is the potential for participation. Furthermore, while the initial capital outlay for such equipment once past the experimental phase will be high; the cost savings over time could be significant. Smaller farmers individually may not be able to employ such technology, but on a cooperative or collective basis individual participants cost could be lowered.



## Dairy

Adams County's dairy business represents 15% of Adams County's agriculture sales. According to the 2007 Census of Agriculture, Adams County has already one of the most advanced dairy farms in the world.

Milk ingredients represent an important area of research for domestic as well as export markets. Recent advances in processing research and membrane technology have made the fractionation of milk both economically and technically feasible. Existing and emerging milk ingredients and fractions have many food and beverage applications and can be considered as value-added processing which improves the functionality and broadens the use of dairy proteins as ingredients. An area of active research is to understand the processing variables impacting the quality of these products.

Whey proteins can be separated into individual proteins that offer their own benefits. Lactoferrin is an iron-binding whey protein, which appears to increase iron absorption and transport. Added to infant formulas, lactoferrin offers a protein composition similar to that of human milk. An anti-microbial and anti-viral agent, lactoferrin may inhibit a diverse range of organisms, including bacteria, yeast, fungi, parasitic protozoa, E. coli, HIV, herpes viruses and hepatitis C. Preliminary research appears to show it stimulates growth of beneficial bacteria in the intestinal tract. Animal studies suggest lactoferrin may also decrease bone breakdown, helping sustain bone density.

Greater concentrations of immunoglobulin are found in whey derived from colostrums (mammary milks). Whey protein may also have beneficial effects on some symptoms of metabolic syndrome, including, but not limited to type 2-diabetes and cardiovascular disease. Emerging evidence suggests that consumption of about 50 grams of whey protein may help in the following.

- ✓ Improve body composition during dieting, potentially by increasing energy expenditure and helping
- ✓ Maintain lean body mass
- ✓ Improve blood glucose levels and insulin response after a meal
- ✓ Promote healthy blood pressure, arterial function and lipid profiles in both animals and humans, thus reducing cardiovascular risk factors.

Lactoper-oxidase (LP) is a secretory enzyme acting as a natural microbial agent with potential use in dental products to reduce tooth decay. Adding LP to milk can inhibit bacterial growth and extend its shelf life.

Researchers have provided technical insights on the surface chemistry of casein to help the dairy industry develop ways to convert it into functional ingredients for new food or pharmaceutical use. Micelles, found in milk, are made of durable protein particles that naturally bury their fat-soluble amino acids in their inner core making them soluble in water-based beverages such as milk. Casein micelles have been shown to be useful in the future as a way to provide nano-carriers for essential oils, antioxidants and flavors in beverages. Specifically studying the nano-carrier capabilities, researchers found preliminarily that using encapsulated essential oils, clove oil and thyme oil in milk was more efficient at preventing the growth of E. coli and Listeria monocytogenes than adding the oils directly. Micelles are spheres of lipids that form in aqueous solutions. They naturally separate in water-based beverages. However, the enclosed oil droplets in a whey capsule, dried into a fine powder, completely dissolved in whole, 2% and skim milk. These studies could give the industry options for improving the safety of milk-based beverages. Sensory tests must be done to determine if consumers detect off-odors and flavors from these oils. There are also new manufacturing channels for existing dairy businesses, spawning new research and development companies or branch university campuses.

# Market Assessment & Economic Development Opportunities

A dairy intake dietary study has found, specifically milk and yogurt, are associated with higher bone mineral density, BMD, in the hip, but not the spine. Conversely, cream, may be associated with lower BMD overall. These findings suggest that not all dairy products are equally beneficial in promoting bone strength. In this study, 2.5 to 3 servings of milk and yogurt intake per day were associated with better bone density. More research is needed to examine the role of cheese intake, and whether individual dairy foods have a significant impact in reducing fractures.

## **Animal Husbandry**

Combined beef, hogs, and other animals represent a reasonable share of more than 10% of Adams County's agriculture sales. Cattle's potential includes the improved genetics breeding capabilities, taking advantage of the DNA-based tests for genes or markers affecting desirable traits such as meat quality and disease resistance.

The beef slaughtering process has a negative environmental impact, contributing to stressors of air, biota, water and land. Typically government policies have only focused on each individual part of the process. Taking the process as a whole, new policies and commercial procedures can be designed to mitigate the "life cycle" of food production from farm to table.

Swine production is severely impacted by the pernicious Porcine Reproductive and Respiratory Syndrome (PRRSV) disease. This pandemic in pigs causes significant losses in the industry due to reproductive disorders and growth retardation. Studies are on-going to develop effective methods to eliminate and mitigate the risk of the disease's spread among the breeding population. Specific projects include a bio-filter vs. anti-microbial filter to reduce the quantity of PRRSV excretion. The results indicated a need for further development of commercial technologies to reduce the risk of environmental contamination with PRRSV-positive exhausted air.

Another medical concern for swine breeders is the high pre-weaning mortality and impaired stress-related growth of live-born piglets. Either the piglet's death or decreased growth rate results in increased costs to the producers. A 5-year USDA research program worked to establish benchmark profiles, identifying genes that may contribute or cause the conditions, and define the biomarkers that may predict a piglet's predilection.

Commercially desirable consumer preferences for a tender meat product is driving the need for further research to determine the associations of the calpain enzyme and five calpastatin genes with other economically important traits, such as growth and lean meat yield, and to devise selection programs for a more tender product.

Pharming or genetic engineering of farm animals is an extended business opportunity for commercial breeders. The global market for recombinant proteins from domestic animals is expected to be \$18.6 billion in 2013/2014.

Cattle carrying human antibody genes which are able to produce human polyclonal antibodies, have the potential to provide a steady supply of polyclonal antibodies for treatment of various infectious and medical conditions like organ transplant rejection, cancer, and autoimmune diseases and other diseases.

A polyclonal antibody which is a preparation of these antibodies bears some resemblance to the antibody variety found in normal serum that separates from clotted blood.

Another valuable medical therapy is porcine fetal neural cells, which have been transplanted into the brain of patients suffering from Parkinson's disease, Huntington's disease, stroke and focal epilepsy. The porcine neural cells advantages over their human counterparts are their abundant availability. Goat's mammary gland is the preferred production site, because protein quantities can be produced and established methods for extraction and purification of these proteins. It is proven the amount of human anti-thrombin III, which is a protein that helps control blood clotting, obtained from transgenic goats, per year is equivalent to 90,000 human blood samplings. Another novel transgenic project takes spider's silk cells and injects them into goats creating re-engineered goats, producing milk with the same protein as the spider's silk. By isolating those proteins, they are able to spin the silk, which is five times stronger than steel and about three times stronger than man-made fibers such as Kelvar. This strength makes the material ideal for all sorts of uses, from better lighter bullet-proof vests to safer suspension bridges. This silk, with unique biological materials like polymers, may also be useful as suture or plastic materials in facial and orthopedic restorative surgery.

## Bees

Bees are "keystone organisms" in most terrestrial ecosystems. Without bees, many flowering plants would eventually become extinct. Without the work of bees, many fruit and seed-eating birds and some mammals, including people, would have a less varied and less healthy diet. The Capital Area Beekeepers Association serves Adams, Cumberland, Dauphin, Lebanon, Perry and York Counties.

A consequence of the honey bees' endangered status is fruit and berry growers face increasing costs to rent beehives for crop pollination, when more native, wild bees could be relied upon.

A collaborative four-state effort will construct a detailed assessment of the role of native bees in the pollination of low-bush blueberries in Maine, cranberries in Massachusetts, squash in Connecticut and apples in New York. With hive rental is one of the biggest and increasing costs for fruit growers; the project will also determine ways to reduce dependence on commercial bees by relying more on native bees, which are a largely untapped resource, and also to create environments favorable to bees. The research will provide insight into how to enhance environments for sustainable wild bee populations, along with recommendations on pesticide use or avoidance by growers to protect both wild and commercial honey and bumble bees. By better understanding pollinator communities in each crop system, researchers can assemble an outreach plan, a "pollination toolbox," and grower workshops to enable growers to determine whether a pollination deficit exists, and if so, what to do about it.

Scientists are using bees' learning and decision making behavior theories to discover means to enhance their effectiveness in pollinating crops. The new theories about honey bees are shared with psychologists and economists who analyze human decision making. A central question being asked about both animal and human decision-making is how choices are made under conditions of uncertainty.

Within days of being placed in an orchard, scout bees discover attractive alternative blooms, after which they recruit other bees through their dances. Individual foragers learn to save work by "robbing" nectar from flowers in the orchard without pollinating them. By sequentially introducing naïve colonies throughout the blooming period, in one study scientists have increased effective bee pollination and yields by 50 to 100%.

## Analysis Input Derived From Municipal & Business Surveys

Several surveys were conducted as part of the initial public input process for the County’s updating of its comprehensive plan. Both the municipality and business survey yielded information on market conditions, perceptions of economic development and activity critical to implementation, or important to marketing. The following are highlights of those surveys.

### MUNICIPALITY SURVEY

- ✓ Municipal leadership responding to the survey indicated that economic development is linked to or synonymous with job creation, business retention and expansion and business recruitment.

Table 14 - Meaning of Economic Development in the Community

Economic Development Meaning	Percent
Job creation	51.4%
Higher paying jobs	17.1%
Expand the tax base	28.6%
Diversify the tax base	17.1%
Retain and expand current businesses	42.9%
Recruit new businesses	42.9%
Attract services not currently available	21.4%
Promote entrepreneurship and small business	31.4%
Control growth/smart growth	31.4%
Promote social and economic equality	14.3%
Wealth creation	4.3%
Other (please specify)	4.3%

- ✓ The largest proportions of the respondents identified the provision of leadership and activity facilitating the economic development process as being the primary role for local government.

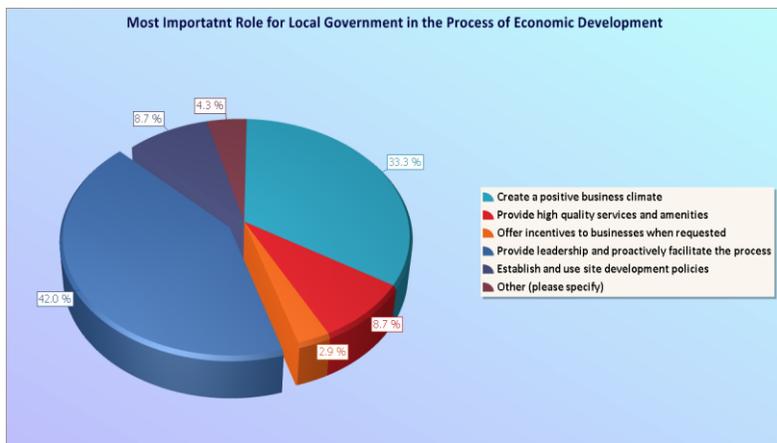


Table 15 - Primary Role of Local Government in Economic Development

Primary Role of Local Government	Percent
Create a positive business climate	33.3%
Provide high quality services and amenities	8.7%
Offer incentives to businesses when requested	2.9%
Provide leadership and proactively facilitate the process	42.0%
Establish and use site development policies	8.7%
Other (please specify)	4.3%

# Market Assessment & Economic Development Opportunities

- ✓ Municipal representatives identified several barriers to economic development in Adams County that were most important. The largest proportions identified citizen involvement, the lack of major employers, the lack of regional collaboration and the lack of available sites and buildings as being the primary barriers.

Table 16 - Barriers to Economic Development in Adams County

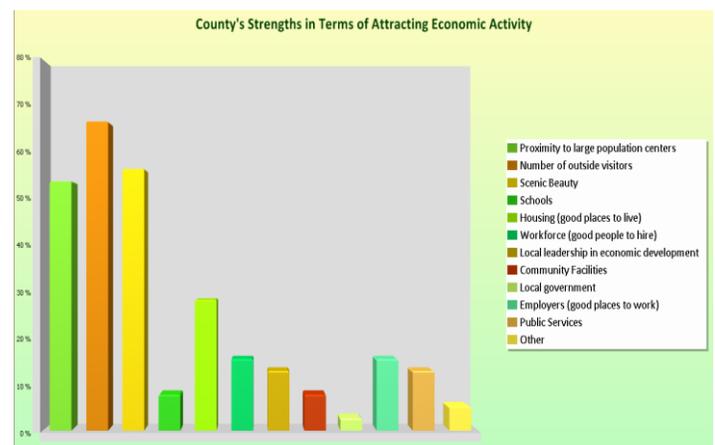
Barriers to Economic Development	Percent
Citizen involvement	43.1%
Availability of sites and buildings	30.8%
Lack of regional collaboration	35.4%
Insufficient number of skilled workers	7.7%
Lack of transportation infrastructure	20.0%
Lack of communications infrastructure	15.4%
Lack of cohesive municipal regulations	27.7%
Lack of leadership	21.5%
Lack of capital/funding	23.1%
Lack of political support	16.9%
Lack of workforce training opportunities	7.7%
Lack of accessible housing	0.0%
Inadequate public school system	1.5%
Lack of recreation and cultural amenities	9.2%
Inability to retain young people	13.8%
Limited number of major employers	40.0%
High number of out-commuters	18.5%
Other (please specify)	4.6%

## BUSINESS SURVEY

- ✓ Businesses from all categories or NAICS responded to the survey. However, the number related to non-retail, non-visitor and non-consumer-oriented activity is lower than those in the respective general categories impacting responses. About two-thirds of the respondents identified the number of visitors from outside of Adams County as being the greatest advantage in attracting businesses. More than one-half of all respondents identified the proximity to larger population areas and the scenic beauty of Adams County as being advantages.

Table 17 and Graphic - Advantages in Attracting Business

Advantages	Percent
Proximity to larger population centers	53.8%
Number of visitors from outside of Adams County	66.7%
Scenic beauty	56.4%
Schools	7.7%
Housing (good places to live)	28.2%
Workforce (good people to hire)	15.4%
Local leadership on economic development	12.8%
Community facilities (recreation, library, etc.)	7.7%
Local government (county or municipality)	2.6%
Employers (good places to work)	15.4%
Public services (roads, police, fire, sewer and water)	12.8%
Other (please specify)	5.1%

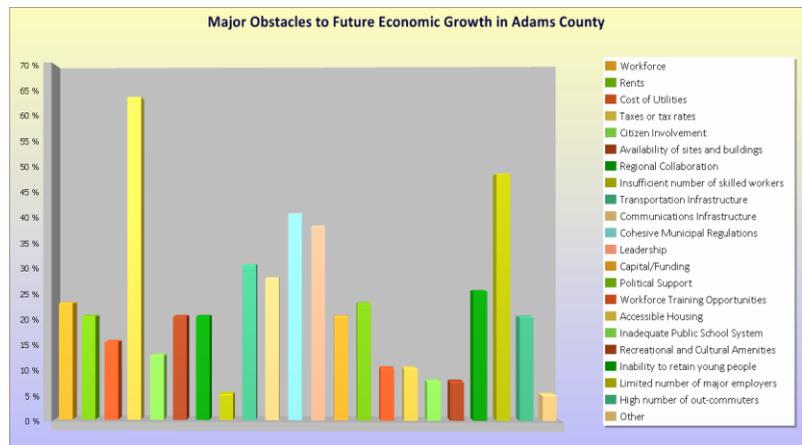


# Market Assessment & Economic Development Opportunities

- ✓ Primary obstacles to business and economic development as identified by the businesses includes: taxes and tax rates; the limited number of major employers, which was also identified by the municipal leadership respondents; cohesive municipal leadership, noted as one of the roles for local government in the economic development process by the municipal leaders; and transportation infrastructure.

Table 18 and Graphic - Obstacles to Business

Obstacles	Percent
Workforce	23.1%
Rents	20.5%
Cost of utilities	15.4%
Taxes or tax rate	64.1%
Citizen involvement	12.8%
Availability of sites and buildings	20.5%
Regional collaboration	20.5%
Insufficient number of skilled workers	5.1%
Transportation infrastructure	30.8%
Communications infrastructure	28.2%
Cohesive municipal regulations	41.0%
Leadership	38.5%
Capital/funding	20.5%
Political support	23.1%
Workforce training opportunities	10.3%
Accessible housing	10.3%
Inadequate public school system	7.7%
Recreation and cultural amenities	7.7%
Inability to retain young people	25.6%
Limited number of major employers	48.7%
High number of out-commuters	20.5%
Other (please specify)	5.1%



- ✓ The largest proportion of businesses ranked all aspects of Adams County’s assets as being good.

Table 19 - Evaluation of Assets

Assets	Poor	Fair	Good	Very Good	Excellent
Availability of Public Utilities (Sewer, Water, Natural Gas, etc.)	15.38%	17.95%	43.59%	15.38%	7.69%
Transportation Network	26.32%	21.05%	42.11%	10.53%	0.00%
Skilled Workforce	2.63%	39.47%	50.00%	5.26%	2.63%
Speed of Communications Networks (Phone, Data, Internet, etc.)	15.38%	35.90%	43.59%	2.56%	2.56%
Air Quality	2.56%	10.26%	33.33%	33.33%	20.51%
Affordable Supply of Housing	13.16%	34.21%	36.84%	13.16%	2.63%
Educational Institutions	0.00%	30.77%	38.46%	25.64%	5.13%
Social Services	2.70%	27.03%	51.35%	18.92%	0.00%

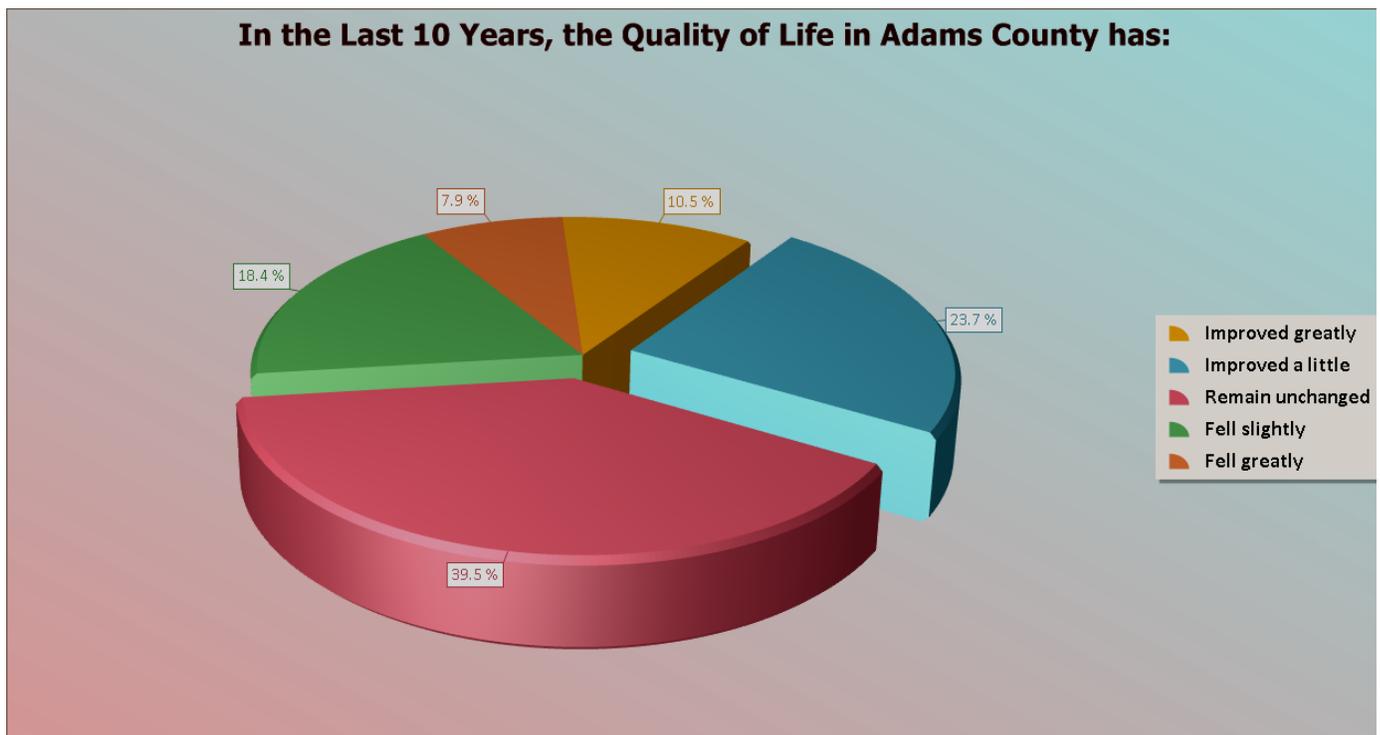
# Market Assessment & Economic Development Opportunities

- ✓ Support for enhanced information technology and related communications infrastructure are identified by the majority of business respondents as being important enhancements.

Table 20 - Support Activity that Could Be Enhanced That Would Help Operations

Enhanced Support Activity	Percent
Packing and Shipping	0.0%
Equipment Repair and Maintenance	35.7%
Information Technology	57.1%
Communications	50.0%
Event Planning	14.3%
Printing Services	0.0%
Legal, Accounting, Notary and other professional services	7.1%
Other (please specify)	7.1%

- ✓ Most business respondents feel that the quality of life in Adams County has either remained the same or not improved in the last decade. Only one in ten feels that the quality of life has improved greatly.



- ✓ 77% feel the quality of life in Adams County is threatened by the loss of jobs.

# Market Assessment & Economic Development Opportunities

- ✓ There is little agreement beyond workforce training and enhanced communications infrastructure as to the types of investment that would have the greatest impact on businesses in Adams County that might be made by government. Table 21 contains a range of possible investments as well as the proportion of business respondents identifying each as a form of investment having the greatest impact.

*Table 21 - Type of Investment that Would Have Greatest Economic Impact on Economic Conditions*

Investment with Greatest Impact	Percent
Recreation Facilities (parks, sports fields, etc.)	17.6%
Cultural Facilities (theaters, art centers, libraries, etc.)	17.6%
Historic Preservation	14.7%
Land Preservation (ag, forest, environmental)	17.6%
Transportation Infrastructure	38.2%
Communications Infrastructure	38.2%
Child Care Alternatives	20.6%
Affordable/Accessible Housing	32.4%
Medical / Health Care Facilities	5.9%
Workforce Training Opportunities	41.2%
Water Service	8.8%
Public Transit	29.4%
Public Safety (police, fire, other emergency response)	20.6%
Other (please specify)	5.9%

- ✓ In most cases, the largest proportion of the businesses feel the County should be in the leadership role with respect to a range of economic development, marketing, land use and the provisions of quality of life amenities.

*Table 22 - Entity that Should Be in the Leadership Role*

Answer Options	State	County	Municipality	Economic Development Organization	Education Institutions	Other
Business Recruitment	9.7%	<b>38.7%</b>	9.7%	<b>32.3%</b>	3.2%	6.5%
Business Retention	12.9%	<b>45.2%</b>	12.9%	<b>22.6%</b>	0.0%	6.5%
Small Business Creation	10.0%	<b>20.0%</b>	13.3%	<b>46.7%</b>	0.0%	10.0%
Marketing and Promotion Activities	6.5%	<b>35.5%</b>	6.5%	<b>41.9%</b>	0.0%	9.7%
Establishing Land Use & Site Dev. Policies	6.5%	<b>58.1%</b>	<b>25.8%</b>	6.5%	0.0%	3.2%
Quality of Life Amenities	6.5%	<b>41.9%</b>	<b>32.3%</b>	6.5%	0.0%	12.9%
Fiscal Incentives	<b>25.8%</b>	<b>41.9%</b>	12.9%	12.9%	0.0%	6.5%
Workforce Training	16.1%	<b>19.4%</b>	6.5%	9.7%	<b>35.5%</b>	12.9%
None	0.0%	0.0%	0.0%	0.0%	<b>100.0%</b>	0.0%

- ✓ Furthermore, most businesses agree or strongly agree that local government should play a role in setting a full range of policies and developing activities related to economic development as found in Table 23.

# Market Assessment & Economic Development Opportunities

Table 23 - Policy Best Representing the Opinion with Respect to Local Economic Development Strategies

Policy/Strategy	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree	Not Sure
Actively recruit new businesses/industries	35.5%	32.3%	9.7%	3.2%	6.5%	3.2%	9.7%
Maintain strong environmental quality policies	29.0%	48.4%	6.5%	6.5%	6.5%	0.0%	3.2%
Increase the amount of commercial and industrial lands available for new businesses/industries	23.3%	26.7%	16.7%	16.7%	6.7%	6.7%	3.3%
Streamline the approval process for new businesses/industries	35.5%	25.8%	6.5%	12.9%	0.0%	12.9%	6.5%
Provide financial incentives to attract new businesses/industries to the area	23.3%	26.7%	20.0%	16.7%	0.0%	6.7%	6.7%
Provide financial incentives to current businesses/industries to encourage business growth locally.	26.7%	36.7%	10.0%	16.7%	0.0%	6.7%	3.3%
Workforce Training Opportunities	30.0%	36.7%	16.7%	3.3%	3.3%	3.3%	6.7%

- ✓ Irrespective of any other positions, majority identify Adams County as being a “good” place to operate a business.

Table 24 - Adams County as a Place to Conduct Business

Description as a Place for Business	Percent
Excellent	0.0%
Good	53.6%
Fair	42.9%
Poor	3.6%

- ✓ Table 25 contains the ratings for various characteristics impacting business. Careful attention and consideration should be given to both the positives and negatives as perceptions are reality to those who hold them, irrespective of whether or not they are based on fact. As an example, 75% of the respondents defined the “cost of doing business, inclusive of taxes, incentives (or lack thereof), etc.” as being negative. On the other hand, several other characteristics were viewed positively by the operations. Success is often dependent upon mitigating negatives as well as promoting the positive.

# Market Assessment & Economic Development Opportunities

Table 25 - Rating of Characteristics that Impact Local Businesses

Characteristics	Very Positive	Somewhat Positive	Neutral	Somewhat Negative	Very Negative	Not Sure
Access to suppliers and markets	3.6%	39.3%	32.1%	21.4%	0.0%	3.6%
Affordable housing	3.6%	32.1%	32.1%	21.4%	10.7%	0.0%
Availability of land	3.6%	39.3%	35.7%	10.7%	10.7%	0.0%
Availability of buildings	0.0%	35.7%	21.4%	32.1%	10.7%	0.0%
Availability of capital	0.0%	21.4%	28.6%	32.1%	10.7%	7.1%
Citizen involvement	14.3%	17.9%	32.1%	25.0%	7.1%	3.6%
Competitive pressure from other businesses	0.0%	14.3%	64.3%	10.7%	7.1%	3.6%
Proximity to other businesses	0.0%	21.4%	57.1%	14.3%	3.6%	3.6%
Regulatory environment (non-tax)	3.6%	14.3%	42.9%	17.9%	17.9%	3.6%
Cost of doing business (taxes, incentives, etc.)	7.1%	3.6%	14.3%	50.0%	25.0%	0.0%
Quality of life	25.0%	46.4%	21.4%	7.1%	0.0%	0.0%
Skilled workforce	7.1%	42.9%	35.7%	10.7%	0.0%	3.6%
Low labor costs	0.0%	37.0%	37.0%	25.9%	0.0%	0.0%
Shipping Costs	0.0%	14.3%	57.1%	28.6%	0.0%	0.0%
Energy availability and cost	0.0%	32.1%	35.7%	28.6%	0.0%	3.6%
Cost of living	0.0%	28.6%	42.9%	14.3%	14.3%	0.0%
Parking	0.0%	3.7%	22.2%	29.6%	44.4%	0.0%
Infrastructure—communications	0.0%	7.4%	48.1%	25.9%	18.5%	0.0%
Infrastructure – utilities	0.0%	25.0%	46.4%	21.4%	7.1%	0.0%
Infrastructure—transportation	0.0%	7.4%	48.1%	29.6%	14.8%	0.0%

- ✓ About six out of ten businesses have plans to make investments in their operations in the foreseeable future. About two-thirds of these have plans to expand.

Table 26 - Whether Plans for New Investment in Operations

New Investment	Percent
Expand operations in the next year	25.9%
Downsize operations in the next year	3.7%
Make plans to expand operations	18.5%
None	40.7%
Other (please specify)	11.1%

- ✓ Only a small proportion of those having plans or the desire to expand will do so outside of Adams County.

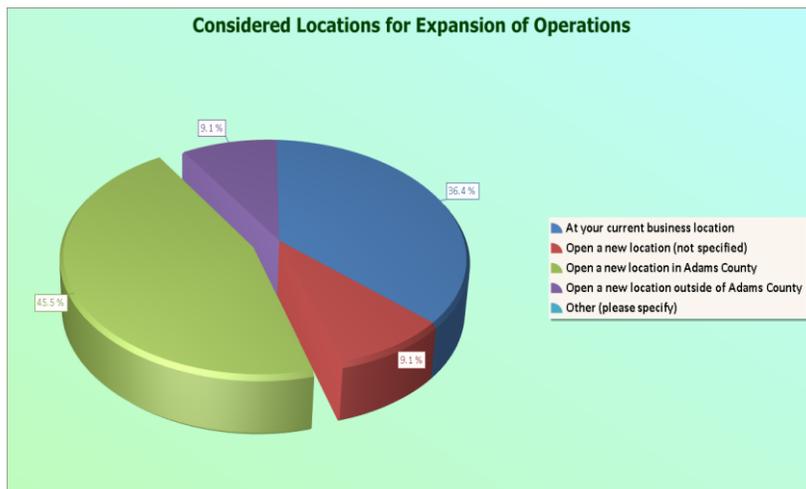


Table 27 - Location of Expansion if Applicable

Location of Expansion	Percent
At your current business location	36.4%
Open a new location (not specified)	9.1%
Open a new location in Adams County	45.5%
Open a new location outside of Adams County	9.1%
Other (please specify)	0.0%

# Market Assessment & Economic Development Opportunities

- ✓ While the majority sees Adams County residents, visitors or other businesses as being their primary market; about one-quarter defined the Mid-Atlantic area as their primary market.

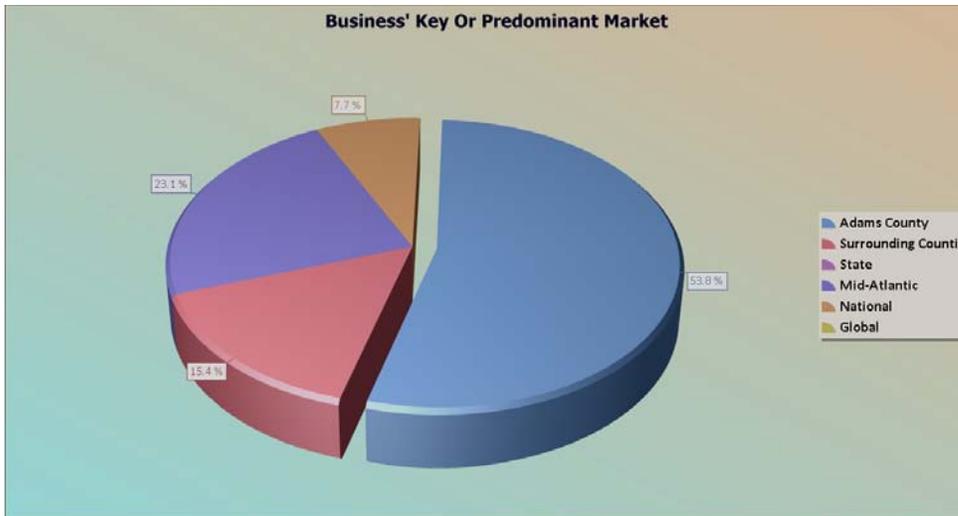


Table 28 - Predominant Market for Activity

Market for Activity	Percent
Adams County	53.8%
Surrounding Counties	15.4%
State	0.0%
Mid-Atlantic	23.1%
National	7.7%
Global	0.0%

- ✓ About four in ten define their average customer base as being local. On the other hand, a number serve other markets as well.

Table 29 - Proportion of Customer Base by Geographic Area

Location of Customer Base	Average Percent
Local	47.88
In-state	33.40
Out-of-state	31.75
Online	25.38

- ✓ Many reasons are given as to why employees generally leave the employers in the area as identified in Table 30.

Table 30 - Common Reasons for Employees Leaving Operations

Reasons Employees Leave	Percent
Inadequate compensation	28.6%
Lack of opportunities for career advancement	28.6%
Insufficient recognition or appreciation	4.8%
Inadequate benefits	19.0%
Lack of opportunities for professional development	9.5%
Insufficient job security	4.8%
Poor relations with management	4.8%
Commute time	4.8%
Seasonal employee	33.3%
Other (please specify)	19.0%

# Market Assessment & Economic Development Opportunities

- ✓ It is noted that four in ten of the respondents are approaching retirement age within the next ten to fifteen years.

*Table 31 - Age of Respondents*

Age Category	Percent
Under 30	6.7%
30 to 44	13.3%
45 to 54	40.0%
55 to 64	40.0%
65 or older	0.0%

- ✓ Only one-third have identified someone to operate the business should they retire or other circumstances arise so that they can no longer operate the businesses. This could create both issues as well as opportunities for entrepreneurship.

*Table 32 - Known Entity to Operate Business after Retirement of Owner*

Someone to Operate Business in Future	Percent
Yes	33.3%
No	33.3%
Not Certain	25.0%
Maybe	8.3%

- ✓ 70% identify the person as being a family member.

## Demand Forecast Input from Resident Survey

### RESIDENT SURVEY

The potential for all goods and services is based on the ability of the market to purchase those goods and services.

To facilitate data that can be used to project demand for goods and services in computer modeling, existing demographic information and trends were reviewed; and a survey of residents was conducted. The focus of the survey was on attitudes and opinions on issues related to economic development and current spending and activity patterns otherwise not available from other sources. The current spending is used to forecast future spending, with growth in revenues or sales and related supportable space derived from growth in the market. Theoretically, none of the growth in revenues or sales indicated is extracted from any existing operation. The following is also noted.

- ✓ All survey methodologies, including those employed by the U. S. Census Bureau, have inherent biases. Online surveys have a tendency to be biased toward higher income households and those without very young children.
- ✓ Grocery shopping is used as a surrogate for convenience shopping in general; while apparel shopping is used for non-convenience shopping.

# Market Assessment & Economic Development Opportunities

- ✓ Food for home consumption is generally purchased from supermarkets or box operations containing food space.
- ✓ People also purchase food from food service establishments. There is a relationship between the type of food service establishment and the typical price of the meal.
- ✓ There are certain forms of entertainment and recreation which are often associated with food consumption.
- ✓ Regardless of income, most households spend the majority of the income on three basic commodities. These are food, housing or shelter and transportation.

The resident sample was obtained from all areas of Adams County. About one-third of the sample came from Zip Code Area 17325 (Gettysburg), reflecting the largest concentration of people in the Adams County.

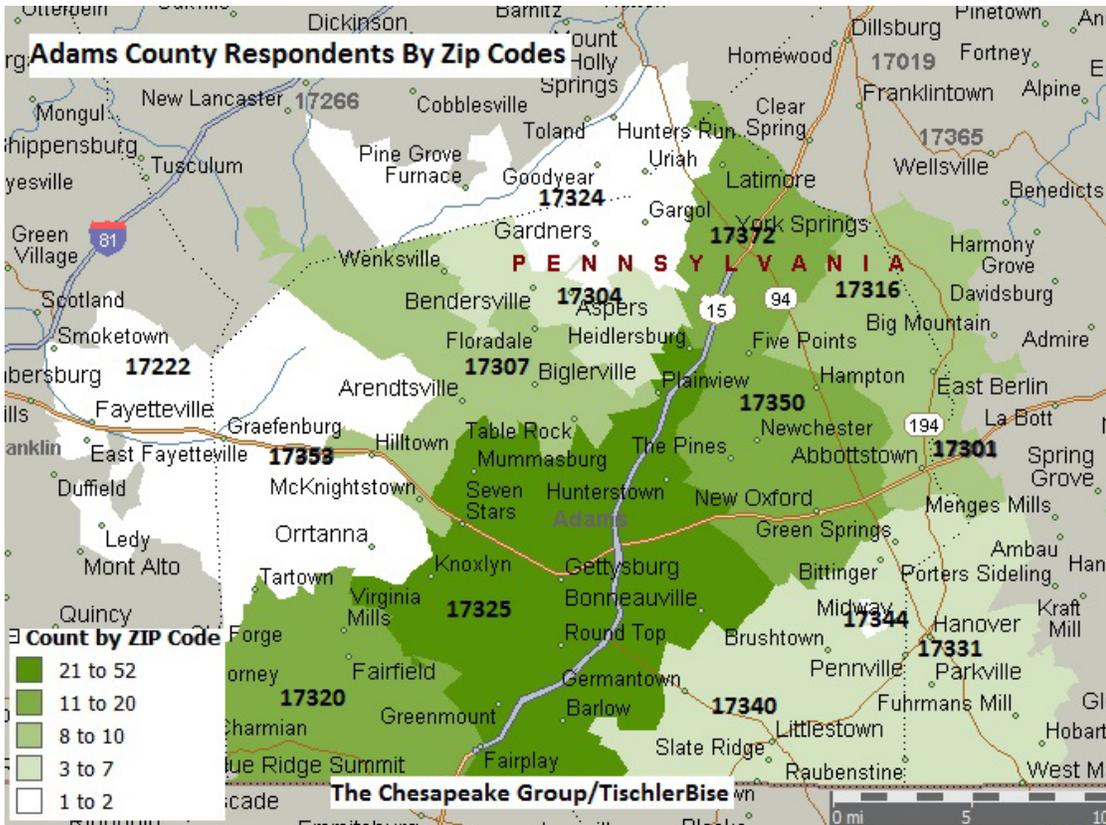


Table 33 - Resident Zip Codes\*

Zip Codes	Percent
17325	34.21%
17320	11.18%
17372	10.53%
17350	7.89%
17316	6.58%
17307	5.92%
17301	5.26%
17340	3.95%
17304	3.95%
17331	3.29%
17303	1.97%
17353	1.32%
17344	1.32%
17324	1.32%
17310	0.66%
17222	0.66%

\*Developed by The Chesapeake Group, Inc., 2013.

The following is the salient information derived from the survey of residents.

## DEMOGRAPHICS

- ✓ Majority of the households have two members. About one-fourth of the households have three or four members.

# Market Assessment & Economic Development Opportunities

Table 34 - Number of People Living in Household\*

Number	Percent
1	15.8%
2	54.4%
3	12.3%
4	14.0%
5	1.2%
6 or more	2.3%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ About 10% of the households have pre-school aged children which often impacts spending, spending patterns and income.

Table 35 - Number of Household Members Under 6 Years of Age\*

Number	Percent
0	90.6%
1	5.8%
2	3.5%
3	0.0%
4 or more	0.0%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ While a significant share of the households has someone employed working in areas of Adams County; many others are employed outside the jurisdiction and outside of Pennsylvania.

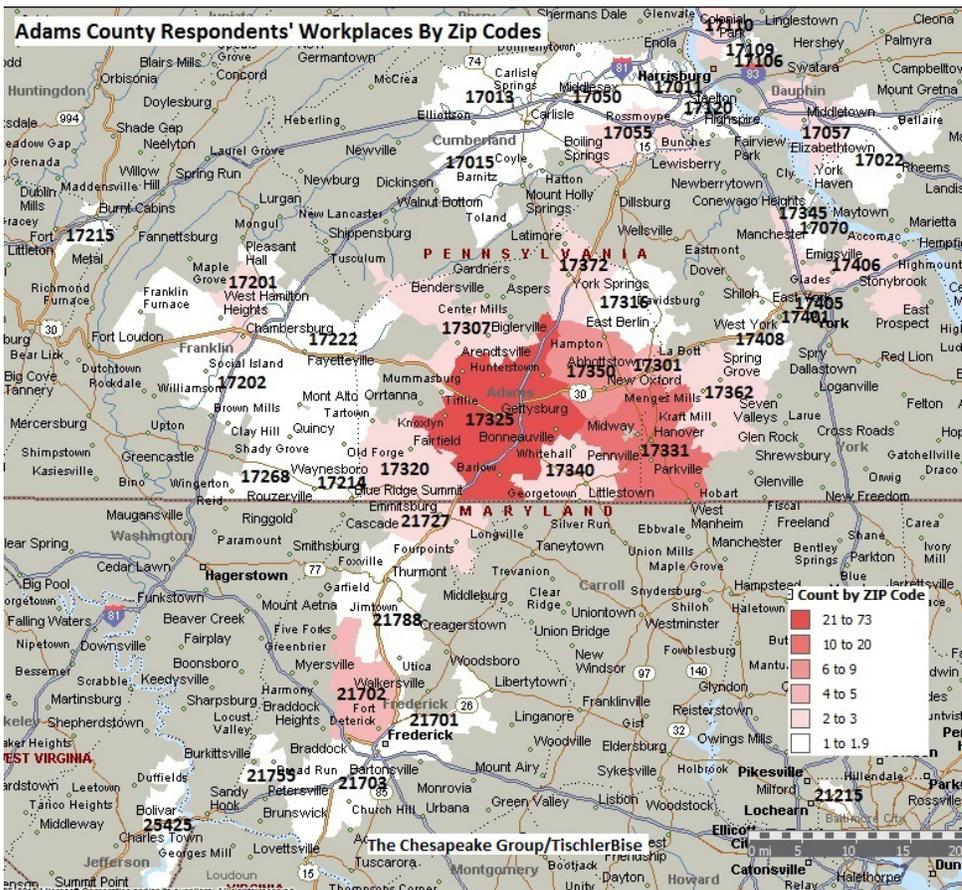


Table 36 - Respondents' Workplace Zip Codes\*

Zip Codes	Percent
17325	43.71%
17331	8.38%
17350	5.39%
17301	2.99%
21702	2.40%
17372	1.80%
17340	1.80%
17320	1.80%
17307	1.80%
17201	1.80%
17110	1.80%
17055	1.80%
21727	1.20%
17406	1.20%
17405	1.20%
17362	1.20%
17057	1.20%
Others	18.56%

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

- ✓ More than one-half of the respondents are employed full-time. Only 7% defined themselves as being unemployed or underemployed.

*Table 37 - Employment Status\**

Status	Percent
Employed Full-time	53.4%
Employed Part-time/Seasonal	6.5%
Underemployed (i.e. Not working as much as I would like)	3.2%
Unemployed	4.0%
Volunteer	2.0%
Retired	24.7%
Other	6.1%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ Two-thirds of the households have no one employed part-time.

*Table 38 - Number Employed Part-time\**

Number	Percent
0	66.3%
1	28.9%
2	3.6%
3	0.6%
4 or more	0.6%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ 15% of the households have someone employed at two or more jobs.
- ✓ On the other hand about two out of every ten households have one or more members either not now employed, not in the labor force, employed part-time, or retired that would like to be employed full-time.

*Table 39 - Number in Household Not Employed or Employed Part-time Wanting Full-time Employment\**

Number Wanting Full-time Employment	Percent
None	80.8%
Yes, 1 person	16.8%
Yes 2 or more people	2.4%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ Most of those that would like full-time employment have at least some college education.

# Market Assessment & Economic Development Opportunities

Table 40 - Education Level of Person or People\*

Education Level	Percent
Less than high school	2.8%
High school	27.1%
Technical	6.9%
Some college or Associate's Degree	32.6%
Bachelor's Degree	28.5%
Advanced degree	25.7%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ The primary factor identified for not having full-time employment was the “lack of employment opportunities near home.” However, other factors, such as age, also are identified as having a role in the situation.

Table 41 - Primary factors for Not Having the Type of Job Desired (Multiple Factors Possible)\*

Primary Factors	Percent
No jobs for my skill or education level available	32.7%
No jobs for my experience level	35.6%
Pay insufficient	35.6%
Age factors	23.1%
Child care issues	1.9%
Lack of employment opportunities near home	56.7%
Lack of transportation	4.8%
Other factors	26.0%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ Not surprisingly based on the previous noted responses, about one-fourth of the respondents are senior citizens at least 65 years in age.

Table 42 - Age of the Primary income Earner\*

Age Category	Percent
Under 25	1.2%
25 to 34	7.3%
35 to 44	12.2%
45 to 54	25.0%
55 to 64	31.1%
<b>65 to 74</b>	<b>20.1%</b>
<b>75 or over</b>	<b>4.3%</b>

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ The average (mean) total annual household income is estimated at \$85,100. However, about one-third of the households have total annual household incomes of at least \$100,000.

# Market Assessment & Economic Development Opportunities

Table 43 - Total Annual Household Income\*

Income Level	Percent
Less than \$10,000	1.2%
\$10,000 to \$14,999	2.5%
\$15,000 to \$19,999	3.1%
\$20,000 to \$29,999	5.6%
\$30,000 to \$49,999	17.3%
\$50,000 to \$74,999	14.8%
\$75,000 to \$99,999	18.5%
\$100,000 to \$149,999	25.3%
\$150,000 or more	11.7%

\*Developed by The Chesapeake Group, Inc., 2013.

## ATTITUDES

As in the previous surveys, information was gathered on a variety of topics related to economic development and the quality of life in Adams County.

- ✓ Greater proportions of residents identified the proximity to larger population centers and the number of visitors to the area as being strengths to economic activity than the respective proportions of businesses. The scenic beauty was also identified as a significant asset to economic activity.

Table 44 - Strengths in Terms of Economic Activity\*

Strengths	Percent Residents	Percent Businesses
Proximity to larger population centers	57.4%	53.8%
Number of visitors from outside of Adams County	76.3%	66.7%
Scenic beauty	73.1%	56.4%
Schools	26.9%	7.7%
Housing (good places to live)	49.0%	28.2%
Workforce (good people to hire)	29.7%	15.4%
Local leadership on economic development	13.3%	12.8%
Community facilities (recreation, library, etc.)	22.5%	7.7%
Local government (county or municipality)	9.6%	2.6%
Employers (good places to work)	18.1%	15.4%
Public services (roads, police, fire, sewer and water)	20.1%	12.8%
Other (please specify)	7.2%	5.1%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ The limited number of major companies, also defined by the business survey respondents, was identified as the major obstacle to economic growth. Transportation infrastructure, the “youth drain,” the lack of capital and funding, the “out commuting,” the lack of cohesive municipal regulations and citizen involvement and were also viewed as being important obstacles.

# Market Assessment & Economic Development Opportunities

Table 45 - Major Obstacles to Economic Growth\*

Major Obstacles	Percent
Citizen involvement	34.0%
Availability of sites and buildings	16.0%
Regional collaboration	28.7%
Insufficient number of skilled workers	19.7%
Transportation infrastructure	50.0%
Communications infrastructure	28.3%
Cohesive municipal regulations	34.8%
Leadership	30.7%
Capital/funding	38.9%
Political support	21.3%
Workforce training opportunities	23.4%
Accessible housing	12.3%
Inadequate public school system	16.4%
Recreation and cultural amenities	22.1%
Inability to retain young people	42.2%
Limited number of major employers	66.4%
High number of out-commuters	36.9%
Other (please specify)	13.9%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ Irrespective of educational achievement, the largest proportion of residents feel that there are limited employment opportunities in Adams County. In general, the higher the education level the less opportunity is perceived as existing in Adams County.

Table 46 - Sense of Limited Employment Opportunities in Adams County by Education Level\*

Education Level	Agree	Disagree	Not Sure
High school, no degree	53.7%	32.5%	13.9%
High school graduate	48.9%	40.4%	10.6%
Some college, no degree	46.6%	36.2%	17.2%
Associate's degree	42.2%	37.9%	19.8%
Bachelor's degree	57.6%	26.3%	16.1%
Master's degree	64.7%	22.0%	13.3%
Doctoral degree	64.0%	20.8%	15.3%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ Most residents have the same opinion as most businesses about the change in the quality of life in Adams County in the past ten years. Majorities feel that quality of life has either improved a small amount or remained unchanged.

# Market Assessment & Economic Development Opportunities

Table 47 - Changes in Quality of Life in Last Ten Years\*

Quality of Life Change	Percent Residents	Percent Businesses
Improved greatly	6.1%	10.5%
Improved a little	38.8%	23.7%
Remained unchanged	30.6%	39.5%
Fell slightly	19.6%	18.4%
Fell greatly	4.9%	7.9%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ About two-thirds of the residents are, to some extent, in agreement with the use of incentives to attract new business. This compares to about three-fourths of the businesses.

Table 48 - Use of Incentives to Attract New Business\*

Use of Incentives	Percent Residents	Percent Businesses
Strongly agree	15.9%	28.1%
Agree	20.8%	15.6%
Somewhat agree	30.2%	37.5%
Somewhat disagree	13.5%	12.5%
Disagree	11.0%	6.3%
Strongly disagree	8.6%	0.0%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ There are significant differences between the residents and businesses as to investment that would have the greatest impact on economic conditions within Adams County. About four out of ten residents perceive that land preservation and public transit would have the greatest impact. Investment in recreation and cultural facilities and historic preservation are seen as being of greatest importance to about one-fourth of the residents.

Table 49 - Investment by County or Locality Having Greatest Impact on Economic Conditions\*

Investment Impact	Percent Residents	Percent Businesses
Recreation Facilities (parks, sports fields, etc.)	27.0%	17.6%
Cultural Facilities (theaters, art centers, libraries, etc.)	28.3%	17.6%
Historic Preservation	25.4%	14.7%
Land Preservation (agriculture, forest, environmental)	42.6%	17.6%
Transportation Infrastructure	48.4%	38.2%
Communications Infrastructure	36.5%	38.2%
Child Care Alternatives	23.0%	20.6%
Affordable/Accessible Housing	31.6%	32.4%
Medical / Health Care Facilities	<b>19.3%</b>	5.9%
Workforce Training Opportunities	37.3%	41.2%
Water Service	18.0%	8.8%
Public Transit	38.1%	29.4%
Public Safety (police, fire, other emergency response)	34.0%	20.6%
Other	9.0%	5.9%

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

- ✓ Expansion and recruitment of certain types of activities are favored by resident, business and the municipal interests. These include: business services; research and development; transportation, communications and utilities; electronics and other manufacturing; and education or training. Residents also would like to see expansion or recruitment of agriculture, food service establishments and other types of manufacturing.

*Table 50 - Types of Industries to Expand or Recruit in Adams County\**

Industry	% Residents	% Businesses	% Municipalities
Agriculture, forestry, fishing	42.9%	19.4%	45.6%
Construction	14.6%	9.7%	20.6%
Business services	32.1%	38.7%	47.1%
Lodging	9.2%	9.7%	13.2%
Food processing	16.3%	3.2%	14.7%
Research and development (scientific, computers, ag, etc.)	65.4%	48.4%	66.2%
Eating/drinking establishments	30.0%	32.3%	16.2%
Transportation, communication, utilities	45.8%	41.9%	33.8%
Finance, insurance, real estate	10.8%	16.1%	17.6%
Health services	26.3%	12.9%	39.7%
Electronics, machinery & transport. equipment manu. & assembly	45.4%	35.5%	44.1%
Food, textile, plastic, metal % wood product manu. & assembly	36.3%	25.8%	38.2%
Retail trade	30.0%	29.0%	23.5%
Education or training	46.3%	41.9%	50.0%
Other	7.9%	12.9%	7.4%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ While 38% of the residents felt that public transit investment would have the greatest impact on economic activity; about 15% would potentially use transit for work trips.

*Table 51 - Would Use Public Transit for Work If Available\**

Use	Percent
Yes	14.6%
No	53.2%
Maybe	32.2%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ About six in ten residents that feel they have sufficient knowledge of the housing market do not believe that there is sufficient supply of rental housing in Adams County.

*Table 52 - Adequacy of Supply of Rental Housing*

Adequacy	Percent Resident	Percent Municipality
Yes	17.7%	22.1%
No	30.9%	26.5%
Don't Know	51.4%	51.5%

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

*Table 53 - Most Important Market for Rental Housing*

Market Segment	Percent
Housing for families	58.1%
Housing for single occupants	23.0%
Housing for seniors	9.5%
Accessible housing for people with disabilities	0.0%
Pet friendly	9.5%

\*Developed by The Chesapeake Group, Inc., 2013.

## SPENDING

The three commodities upon which most households in this country spend the majority of the income are food, housing and transportation. In Adams County, transportation is focused upon personal and business vehicles. The following provides salient information employed in modeling on food and housing commodities and select other spending.

- ✓ In general, about six out of every ten residents make convenience shopping trips within Adams County. (It is noted that a 60% to 70% is considered to be a good penetration level in general.)

*Table 54 - Proportion of Day-To-Day or Convenience Shopping in Adams County\**

Convenience Shopping Proportion	Percent
More than 75%	30.6%
50% to 75%	26.1%
25% to 50%	14.7%
Less than 25%	24.9%
I don't do my shopping in Adams County	3.7%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ A full range of convenience activity in Adams County is utilized by the residents as found in Table 55. In many cases, the proportion utilizing the activity, such as groceries and pharmacies, have penetration levels greater than 60%. Of the list of activities or business entities found in the table, the only one with penetration levels below 60% that can be considered “convenience” operations is “coffee shops,” which is impacted significantly by the location of employment.

# Market Assessment & Economic Development Opportunities

Table 55 - Typical Location of Shopping for Various Items\*

Service/Product	Adams County	Harrisburg	Hanover	Carlisle	Waynesboro	Chambersburg	Frederick	Other	N/A
Banking	69.4%	5.4%	15.7%	2.1%	1.2%	1.2%	2.1%	13.2%	0.4%
Legal Services	47.3%	6.2%	14.8%	1.2%	0.4%	0.8%	1.2%	11.9%	18.9%
Insurance	49.6%	1.2%	14.5%	2.5%	0.8%	0.4%	1.2%	29.8%	2.1%
Doctor	64.2%	2.5%	17.7%	2.9%	1.6%	0.4%	2.9%	14.8%	0.8%
Dentist	48.1%	2.5%	20.2%	2.1%	2.5%	1.2%	3.3%	18.5%	2.1%
Pharmacy	72.5%	0.4%	14.3%	2.9%	1.6%	0.4%	1.2%	9.0%	0.4%
Auto Repair	63.1%	4.1%	20.3%	1.7%	0.4%	2.5%	1.7%	11.6%	2.1%
Grocery Store	68.4%	2.0%	28.3%	4.1%	4.5%	5.3%	5.3%	9.8%	0.0%
Office/School Supplies	54.3%	2.1%	32.1%	3.3%	2.9%	1.6%	1.6%	4.5%	6.2%
Gas Station	64.9%	2.4%	28.6%	4.1%	2.9%	4.9%	1.6%	13.1%	0.8%
Tailors/Dry Cleaners	36.6%	1.7%	15.1%	1.7%	0.8%	0.4%	1.3%	4.6%	37.8%
Shipping Services	60.4%	2.1%	19.6%	2.1%	1.3%	0.4%	0.4%	5.4%	12.9%
Barber/Salon/Beauty	60.9%	1.6%	14.4%	1.6%	0.4%	1.2%	1.2%	11.5%	9.9%
Child Care	14.5%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	85.1%
Clothing	35.2%	9.7%	47.9%	5.5%	3.0%	5.9%	7.2%	24.6%	1.3%
Hardware	36.6%	2.5%	53.5%	5.8%	7.8%	8.2%	3.7%	6.6%	0.4%
Department Store	19.9%	11.6%	59.3%	6.2%	3.7%	7.1%	7.9%	19.1%	3.3%
Florist	46.0%	1.7%	15.6%	2.1%	0.4%	0.0%	0.4%	6.8%	30.4%
Farm Stand/Market	74.8%	0.8%	8.0%	1.3%	2.5%	0.8%	1.3%	10.1%	8.4%
Liquor Store/Beer	49.4%	2.6%	26.0%	4.7%	1.3%	1.7%	2.6%	12.3%	17.0%
Restaurant	64.7%	13.3%	45.6%	10.4%	3.7%	9.1%	11.6%	17.8%	2.9%
Sandwich Shop/Lunch	66.9%	3.8%	27.6%	4.6%	1.7%	3.8%	3.3%	10.0%	9.2%
Coffee Shop	46.9%	3.8%	16.7%	2.9%	1.3%	2.1%	2.9%	6.7%	31.4%

\*Developed by The Chesapeake Group, Inc., 2013.

## Food

- ✓ Much food spending is associated with prepared and unprepared food purchased at operations for home consumption. The average household spends roughly \$93 weekly on groceries and related merchandise.

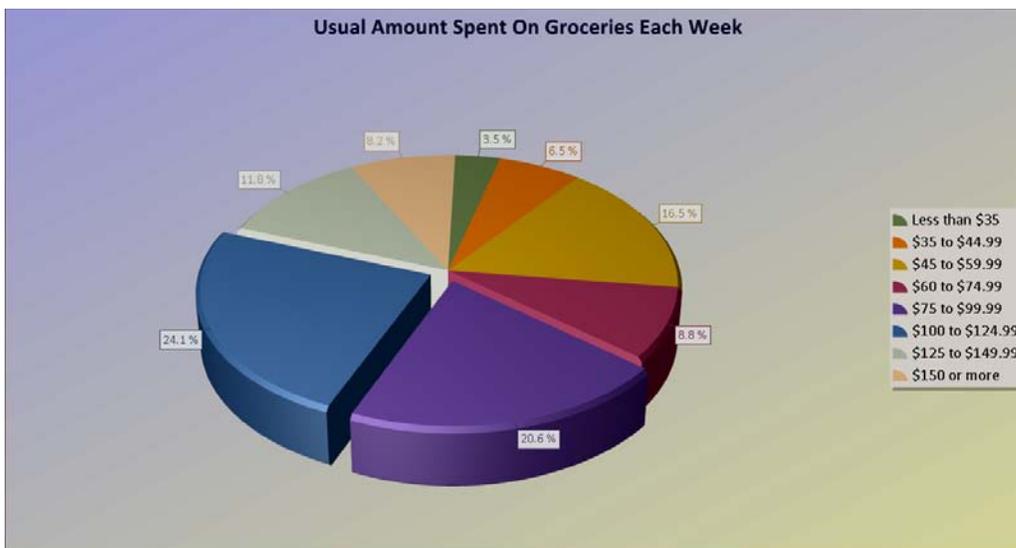


Table 56 - Average Weekly Spending on Groceries\*

Spending	Percent
Less than \$35	3.5%
\$35 to \$44.99	6.5%
\$45 to \$59.99	16.5%
\$60 to \$74.99	8.8%
\$75 to \$99.99	20.6%
\$100 to \$124.99	24.1%
\$125 to \$149.99	11.8%
\$150 or more	8.2%

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

- ✓ About one-half of the residents shop most often at Giant for groceries and related merchandise.

*Table 57 - Primary Grocery Operation\**

Operation	Percent
Giant	51.76%
Kennie's Market	15.88%
Walmart	12.94%
Weis	5.88%
Nell's	4.12%
Wegmans	2.94%
Aldi	2.35%
Other	1.76%
Jubilee	1.18%
Mark's	1.18%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ In addition to purchases made for food at traditional operations, purchases are made frequently at fresh markets, bakeries, butcher shops, dairy stores and others. More than three in ten households have one or more members purchasing fresh items for non-box or supermarket operations at least once per week. More than one-half of the residents make such purchases at least twice per month.

*Table 58 - Frequency of Purchases of Fresh Vegetables, Breads, Baked Items, Fish or Other Items from a Farmers' Market, Roadside Stands, Butcher, or Bakery\**

Frequency	Percent
A few times/week	7.1%
About once/week	27.1%
About twice/month	24.7%
Once/ month	12.9%
4 to 9 times/year	14.7%
Once or twice/year	8.8%
Less often than once/year	4.7%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ The primary products purchased from the alternative operations include fresh fruit and produce in season and meats, breads or other baked goods.

*Table 59 - Type of Product Purchased from Other Than Supermarkets or Box Operations\**

Products Purchased	Percent
Fresh produce in season	87.3%
Fresh fruit in season	86.7%
Fresh or smoked fish	3.6%
breads	26.1%
other baked goods	25.5%
meats	34.5%
other	12.1%

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

- ✓ About one-fourth of the households have one or more members that eat lunch outside of the home more often than once per week; while about two in ten households have one or more members that eat dinner outside of the home at least once per week. Between 55% and 60% of the households have one or more members that generally eat lunch and dinner outside the home at least once per week.

*Table 60 - Frequency Eat Lunch and Dinner Out\**

Frequency	Percent Lunch	Percent Dinner
A few times/week	26.5%	18.7%
About once/week	29.4%	41.5%
About twice/month	17.6%	19.9%
Once/ month	13.5%	9.4%
4 to 9 times/year	7.1%	2.9%
Once or twice/year	3.5%	3.5%
Less often than once/year	2.4%	4.1%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ There is a correlation between the average per person sale with the type of establishment. Full-service establishments are overwhelmingly frequented for dinner; and more than four in ten households have one or member that generally makes lunch trips to full-service operations.

*Table 61 - Type of Food Establishment Frequented for Lunch and Dinner\**

Type of Establishment	Percent Lunch	Percent Dinner
Full-service restaurant	44.9%	81.3%
Fast food operation	21.0%	6.4%
All you can eat buffet	5.4%	5.8%
Sub shop	16.8%	4.1%
Other	12.0%	2.3%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ Many of the lunch and dinner trips are to establishments located outside of Adams County.

*Table 62 - Frequency Eat Lunch, Dinner, or Other Meals Outside of Adams County\**

Frequency	Percent
A few times/week	18.1%
About once/week	21.1%
About twice/month	26.3%
Once/ month	14.6%
4 to 9 times/year	10.5%
Once or twice/year	6.4%
Less often than once/year	2.9%

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

- ✓ Table 63 contains the establishments frequented for lunch; and Table 64 contains the establishments frequented for dinner.

*Table 63 - Establishment at which Lunch Consumed or Purchased\**

*Table 64 - Name of Establishment Most Often Frequented for Dinner\**

Restaurant	Percent
Subway	14.86%
McDonald's	8.78%
Panera	5.41%
Varies	4.05%
Arby's	2.70%
Burger King	2.70%
Gettysburg College Dining	2.70%
Ragged Edge Coffee Shop	2.70%
Thai restaurant	2.70%
Deliso's	2.03%
Gettysburg Family Restaurant	2.03%
La Bella Restaurant	2.03%
Li's Chinese Buffet	2.03%
Perkins	2.03%
Apple Bin	1.35%
C & D Grill	1.35%
Dunlaps	1.35%
Hoss	1.35%
Mom's Coffee Pot	1.35%
Montezuma	1.35%
Olive Garden	1.35%
Ryan's	1.35%
The Pub	1.35%
Tito's	1.35%
Wendy's	1.35%
Other	28.38%

Restaurant	Percent
Hoss'	7.43%
Varies	6.08%
Sydney's	4.73%
Texas Roadhouse	4.73%
Olive Garden	4.05%
Ruby Tuesday	4.05%
Perkin's	3.38%
Red Lobster	3.38%
C&D Bar and Grill	2.70%
Chili's	2.70%
Deliso's	2.70%
McDonalds	2.70%
Montezuma's	2.70%
Ryan's	2.70%
El Costeno	2.03%
La Belle Italia	2.03%
Li's Buffet	2.03%
Rocco's	2.03%
Subway	2.03%
Burger King	1.35%
Dunlap's	1.35%
Long Horn	1.35%
O'Rorke's	1.35%
Ping's	1.35%
Starlight	1.35%
Other	27.70%

\*Developed by The Chesapeake Group, Inc., 2013.

## Housing

- ✓ Almost one-half of the respondents have lived in Adams County for twenty or more years. An additional one-fourth has lived in Adams County for ten or more years.

*Table 65 - Tenure in County\**

Years	Percent
Under 5 years	13.3%
5-9 years	14.1%
10-19 years	27.0%
<b>20 years or more</b>	<b>45.6%</b>

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ About one in three have lived at their current address in Adams County for twenty or more years. About one-fourth have lived at their current address for 5 to 9 years; and an additional one-fourth has lived at their current address for 10 to 19 years. These later two proportions are important since the highest rates of "under water" properties, foreclosures and other housing issues are associated with properties purchased between 2000 and 2007.

# Market Assessment & Economic Development Opportunities

Table 66 - Tenure at Current Address\*

Years	Percent
2 years or less	12.4%
3 to 4 years	7.7%
5 to 9 years	23.7%
10 to 19 years	27.2%
20 or more years	29.0%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ Largely as a result of the tenure, there are about one-third of the households without a monthly mortgage or rent payment. Those without such payments typically have additional income available for other discretionary purchases. The average household, including those without monthly payments, spends about \$731 on monthly rent or mortgages. If those without payments are excluded, the average is \$1,138.

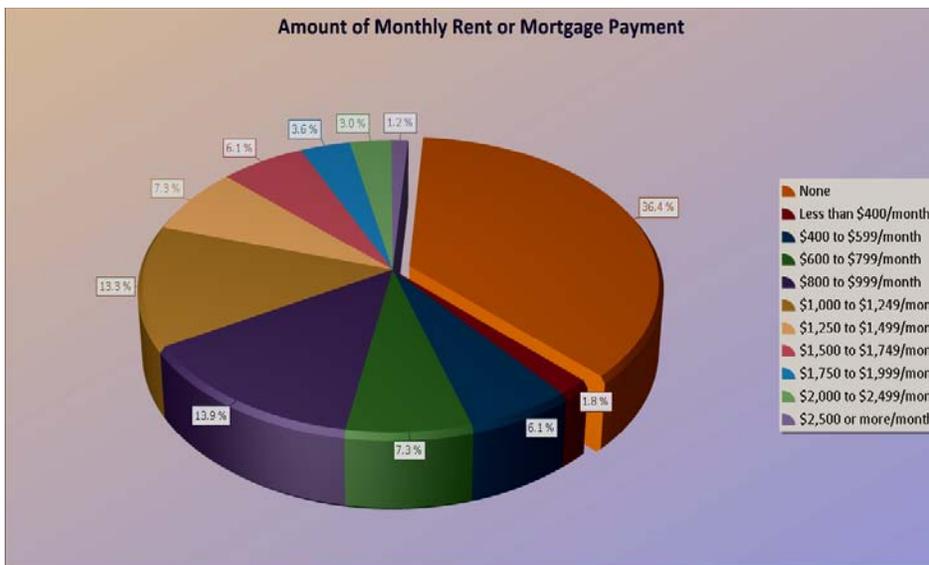


Table 67 - Monthly Rent or Mortgage Payment\*

Monthly Payment	Percent
None	36.4%
Less than \$400/month	1.8%
\$400 to \$599/month	6.1%
\$600 to \$799/month	7.3%
\$800 to \$999/month	13.9%
\$1,000 to \$1,249/month	13.3%
\$1,250 to \$1,499/month	7.3%
\$1,500 to \$1,749/month	6.1%
\$1,750 to \$1,999/month	3.6%
\$2,000 to \$2,499/month	3.0%
\$2,500 or more/month	1.2%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ Because of life-style changes, rental conditions, housing market conditions, employment changes, increase or decrease in household size, or other reasons; a reasonable proportion of the households perceive that they are likely to move in next five years. Two in ten believe that such a move is possible; while about one-fourth are uncertain.

Table 68 - Potential to Move from Current Residence in the Next 5 Years\*

Potential	Percent
Yes	20.7%
No	53.8%
Maybe	25.4%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ For those that might move in the next five years, the majority believe that the move will be to a different sized unit. Whether or not such a move is accommodated by the housing stock in Adams County, the greatest proportion of these envision moving to a smaller unit than that which they have at present. This potentially presents both issues and opportunities for new housing in Adams County.

# Market Assessment & Economic Development Opportunities

*Table 69 - Size of Next Unit\**

Size	Percent
Larger	11.1%
Smaller	44.4%
Same	29.6%
Uncertain	14.8%

\*Developed by The Chesapeake Group, Inc., 2013.

## Transportation

- ✓ The number of personal vehicles owned or leased and their age impact household spending. It is noted that less than 1% of the households do not own or lease a personal vehicle. Some have access to a business vehicle and others are likely to be students. About one-half of households have two vehicles.

*Table 70 - Number of Personal Vehicles Owned or leased\**

Number of Vehicles	Percent
0	0.6%
1	17.9%
2	47.6%
3	18.5%
4 or more	15.5%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ Vehicles older than five years generally have less or no monthly loan payments, but often have higher maintenance costs. Only 11% of the households have no vehicles less than five years old. About two-thirds of the households have one or two vehicles at least five years old.

*Table 71 - Number of Vehicles 5 Years or Older*

Number of Vehicles	Percent
0	11.8%
1	32.4%
2	34.7%
3	12.9%
4 or more	8.2%

\*Developed by The Chesapeake Group, Inc., 2013.

## Other Spending and Entertainment

- ✓ Many residents shop at Kohl's, Walmart and other national operations for apparel and related merchandise.

# Market Assessment & Economic Development Opportunities

Table 72 - Operation at which Apparel Purchases Made\*

Operation	Percent
Kohl's	22.93%
Walmart	15.92%
Online	8.92%
Bon Ton	5.10%
Boscov's	3.82%
Target	3.18%
Varies	3.18%
Gettysburg Outlet mall	2.55%
Ross	2.55%
Eddie Bauer	1.91%
Good Will	1.91%
JC Penny	1.91%
Kleffels	1.91%
Macy	1.91%
Peebles	1.91%
Aeropostale	1.27%
Community Aid	1.27%
Sears	1.27%
T J Maxx	1.27%
Other	15.29%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ In addition to the major commodities, households spend money on other activity that results in or supports commercial space. Entertainment is one of the additional commodities. More than one-third of the households have one or more members that seek entertainment outside the home at least once each month on average.

Table 73 - Frequency Seek Any Form of Entertainment\*

Frequency	Percent
A few times/week	3.6%
About once/week	4.7%
About twice/month	13.0%
Once/ month	16.6%
4 to 9 times/year	24.9%
Once or twice/year	25.4%
Less often than once/year	11.8%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ About 16% of the households have one or more members that generally go to see movies at theaters at least once per month.

# Market Assessment & Economic Development Opportunities

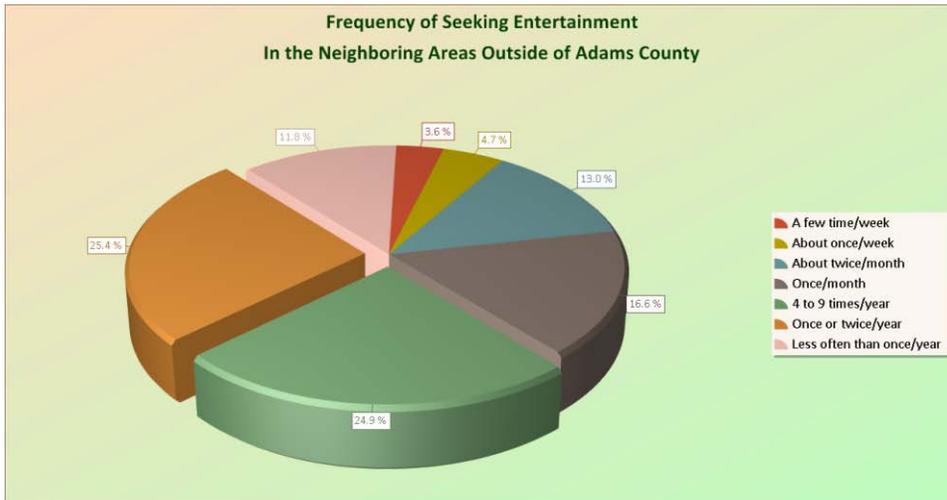


Table 74 - Frequency Go to View Movies at Theaters\*

Frequency	Percent
A few times/week	0.0%
About once/week	1.2%
About twice/month	8.8%
Once/ month	5.9%
4 to 9 times/year	21.8%
Once or twice/year	34.1%
Less often than once/year	28.2%

\*Developed by The Chesapeake Group, Inc., 2013.

## Exporting Dollars

As previously noted, many dollars spent on the consumption of food at food service establishments is done outside of Adams County. In fact, the majority of such spending is done outside of Adams County, resulting in a loss of employment, taxes and income.

Table 73 - Frequency Eat Lunch and Dinner Out and Outside of Adams County\*

Frequency	Percent Lunch	Percent Dinner	Percent Outside
A few times/week	26.5%	18.7%	18.1%
About once/week	29.4%	41.5%	21.1%
About twice/month	17.6%	19.9%	26.3%
Once/ month	13.5%	9.4%	14.6%
4 to 9 times/year	7.1%	2.9%	10.5%
Once or twice/year	3.5%	3.5%	6.4%
Less often than once/year	2.4%	4.1%	2.9%

\*Developed by The Chesapeake Group, Inc., 2013.

- ✓ Much apparel shopping is also done outside of Adams County, based on the operations at which the products are purchased.
- ✓ Not only is apparel shopping impacted; but in most communities today, online purchases are an increasing share of purchases and sales compared to “local” “bricks and mortar” operations. About 20% of households in Adams County have one or more members that shops online and makes purchases at least once each week. About four in ten households have one or more members that make purchases online at least twice each month.

# Market Assessment & Economic Development Opportunities

Table 74 - Frequency of Online Purchases\*

Frequency	Percent
A few times/week	6.4%
About once/week	14.6%
About twice/month	19.9%
Once/ month	17.5%
4 to 9 times/year	21.6%
Once or twice/year	13.5%
Less often than once/year	6.4%

\*Developed by The Chesapeake Group, Inc., 2013.

## Demand Forecasts

The following are the estimates of current and future demand for retail goods and services and traditional office and industrial space for Adams County. No consideration is given to the existing zoning or holding capacity of the land for any estimates in this analysis. It is assumed that there will be growth in housing units and related households that will result in increased demand for retail goods and related services. Countering the increased demand for goods and services generated from household growth will be increased growth of online sales and technological change that will result in changes in required inventories within “bricks and mortar” operations. It is also noted that:

- ✓ All sales estimates are in 2013 dollars.
- ✓ Focusing on opportunities associated with growth is important from a public sector perspective since the opportunities will exist in the future and are not derived from any existing operations or activities either within or outside of Adams County.
- ✓ There have been some substantial changes nationally in consumer spending in the past five years that are anticipated to remain relatively constant over the next few years. Additional significant changes are anticipated in the future. They include a significant shift away from discretionary spending that impacts what is often termed “shopper goods” categories of retail associated with general merchandise, furniture, apparel and many miscellaneous operations and “on demand” production of many “shopper goods.”

According to the 2010 Census, Adams County had a population of roughly 101,000 residing in just over 38,000 households. Average (median) household income was estimated at \$57,000 based on the American Community Survey.

Table 75 – 2010 Population, Household and Income Estimates\*

2010	Population	Households	Med Household Income
Adams County	101,407	38,013	\$57,097

\*Developed by The Chesapeake Group, Inc., 2013.

Since 2010, growth has continued. The growth has been at a slower pace than prior to the Great Recession,

Table 76 – New Housing Unit Permits for Adams County for Years from 2007 to 2012\*

Permits	2007	2008	2009	2010	2011	2012
Total Housing	467	294	191	326	161	167
Single Family	287	211	132	171	122	167

\*From U. S. Census Bureau.

# Market Assessment & Economic Development Opportunities

Another indicator of housing market conditions is housing sales. Home sales, as furnished by the Adams County Office of Planning Development based on Realtors Association of York & Adams County (RAYAC) information, indicates that while sales declined from 2006 and 2007; the number of housing sales increased in 2012 over the number sold in any year from 2008 to 2011.

Table 77 - Number of Homes Sold in Adams County

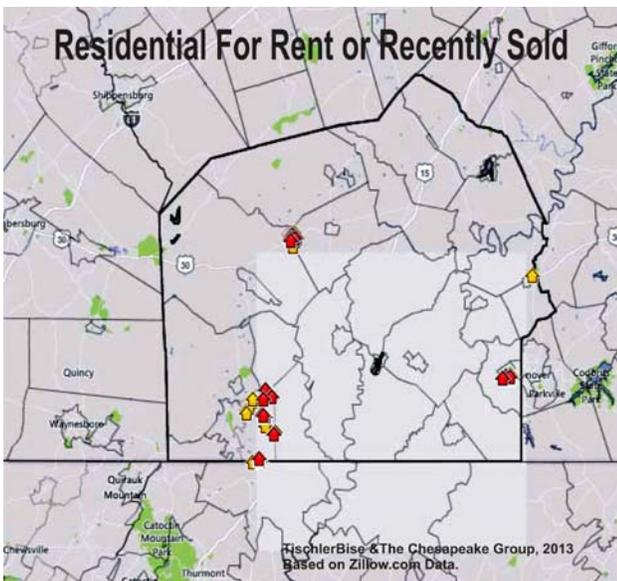
School District	2006	2007	2008	2009	2010	2011	2012
Bermudian Springs	136	116	85	86	90	94	101
Conewago Valley	290	230	188	172	181	178	186
Fairfield Area	108	91	65	60	46	65	67
Gettysburg Area	233	213	152	163	145	162	180
Littlestown Area	245	181	131	116	115	96	135
Upper Adams	100	83	71	50	50	55	62
Total Adams County	1112	914	692	647	627	650	731

As would be expected median sale price of homes in Adams County fell from the time of the housing bust in 2007.

Table 78 - Median Sales Price (RAYAC data)

School District	2006	2007	2008	2009	2010	2011	2012
Bermudian Springs	\$187,750	\$197,900	\$199,900	\$169,450	\$169,950	\$149,950	\$150,000
Conewago Valley	\$169,400	\$179,500	\$184,200	\$169,700	\$170,000	\$156,495	\$148,695
Fairfield Area	\$255,000	\$255,000	\$235,000	\$213,450	\$179,500	\$185,000	\$180,000
Gettysburg Area	\$235,000	\$239,450	\$214,950	\$220,000	\$195,000	\$189,900	\$189,900
Littlestown Area	\$228,327	\$224,500	\$188,000	\$178,325	\$190,000	\$161,500	\$165,000
Upper Adams	\$208,950	\$198,000	\$175,500	\$178,325	\$172,500	\$157,200	\$143,250
Total Adams Co.	\$213,500	\$215,000	\$198,451	\$185,000	\$179,000	\$165,000	\$164,900

In January of 2013 there were 55 homes sales within the County which compares to 33 in January of 2012.



Recent sales as found on Zillow.com indicate rising prices for homes this past year which is a continued sign of recovery. Coupled with continued low mortgage rates, it is probable that the number of housing units will “spurt” for the next year to 1.5 years and then maintain a modest growth pace. Based on the historic rates of growth and changed demographics resulting in lesser numbers of households seeking units on the outskirts of metropolitan population centers; it is conservatively estimated that Adams County will grow by 1,036 households (and slightly more housing units) over the next nine years. This growth is expected to continue through 2033, with the addition of another 1,086 households between 2023 and 3033.

## Demand Generated By County Residents

### Retail Goods and Services Demand

Aggregate retail sales figures represent a compilation of sales associated with ten major categories and the types of operations within those categories. The ten major categories of retail goods and related services follow.

- ✓ Food, such as groceries and related merchandise generally purchased for home preparation or consumption.
- ✓ Eating and drinking, consisting of prepared food and beverages generally consumed on the premises or carried to another location.
- ✓ General merchandise, including variety stores, department stores, and large value oriented retail operators.
- ✓ Furniture and accessories, including appliances and home furnishings.
- ✓ Transportation and utilities, including the sale of new and used automotive and other personal vehicles and parts and basic utilities for the home.
- ✓ Drugstores, including those specializing in health and beauty aids or pharmaceuticals.
- ✓ Apparel and accessories.
- ✓ Hardware & building materials, including traditional hardware stores & garden & home improvement centers.
- ✓ Auto services, including gasoline and vehicle repair.
- ✓ Miscellaneous, including a plethora of retail goods and services ranging from florists to paper goods.

Many of today's better known operations fall into more than one category. For example, many of the "big box" merchandisers, such as Target and Walmart, often have traditional supermarket components within their operations.

A productivity level is the sales per square foot figure essential to pay all costs of operation and provide a reasonable return on investment. Sales productivity levels vary for each sub-category, type of business operation, or store-type. The productivity levels vary from low figures for bowling centers to hundreds of dollars for others. Supportable space is derived by dividing the amount of sales by the appropriate productivity level. Both the spending patterns and productivity levels are likely to change over time.

Table 79 contains the retail sales and supportable square footage of space generated by residents of Adams County at any and all locations for 2013, 2023 and 2033. The ability to capture any or all of the sales in one or more areas of Adams County is relatively high as noted in the survey of residents.

# Market Assessment & Economic Development Opportunities

*Table 79 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category\**

Category	2013 sales	2023 sales	2033 sales	2013 space	2023 space	2033 space
Food	\$278,788,000	\$291,737,000	\$305,288,000	520,652	544,835	570,143
Eat/Drink	103,932,000	108,759,000	113,811,000	259,830	271,898	284,528
General Merchandise	54,821,000	57,367,000	60,032,000	178,821	187,125	195,819
Furniture	16,446,000	17,210,000	18,010,000	50,658	53,010	55,474
Transportation	252,063,000	263,771,000	276,022,000	733,469	767,538	803,186
Drugstore	72,752,000	76,131,000	79,667,000	145,504	152,262	159,334
Apparel	54,707,000	57,248,000	59,907,000	170,232	178,138	186,414
Hardware	99,706,000	104,337,000	109,183,000	423,848	443,534	464,133
Vehicle Service	125,974,000	131,826,000	137,949,000	306,682	320,928	335,835
Miscellaneous	82,917,000	86,768,000	90,798,000	320,252	335,124	350,689
<b>TOTAL</b>	<b>\$1,142,106,000</b>	<b>\$1,195,154,000</b>	<b>\$1,250,667,000</b>	<b>3,109,948</b>	<b>3,254,392</b>	<b>3,405,555</b>

\*Developed by The Chesapeake Group, Inc., 2013.

The following is also noted.

- ✓ The largest categories are food and transportation. Transportation likely has the lowest capturable sales and space of any category at present.
- ✓ Vehicle service is the second largest in terms of sales but not in terms of supportable space.
- ✓ In terms of supportable space, food service (eating and drinking) is the second largest category.
- ✓ The increase in supportable space is sufficient to expand existing space for all categories. However, the potential for the number of additional operations in general merchandise is the smallest based on growth as the typical stores that dominate those industries are the largest in the overall retail industry in most cases.

The aggregate figures found in Table 79 are actually composites of types of operations or sub-categories associated with each category. Essentially, the sales and supportable space associated with each sub-category of space is added together to form the category sales. Table 80 contains the retail goods and related services sales and supportable square footage of space for 2013, 2023 and 2033 generated by residents of Adams County by type of business.

# Market Assessment & Economic Development Opportunities

Table 80 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Sub-category\*

Sub-category	2013 sales	2023 sales	2033 sales	2013 space	2023 space	2033 space
Food	\$278,788,000	\$291,737,000	\$305,288,000	520,652	544,835	570,143
Supermarkets	232,787,980	243,600,395	254,915,480	394,556	412,882	432,060
Independents	22,303,040	23,338,960	24,423,040	55,758	58,347	61,058
Bakeries	6,133,336	6,418,214	6,716,336	20,444	21,394	22,388
Dairies	3,624,244	3,792,581	3,968,744	10,067	10,535	11,024
Others	13,939,400	14,586,850	15,264,400	39,827	41,677	43,613
Eat/Drink	103,932,000	108,759,000	113,811,000	259,830	271,898	284,528
General Merchandise	54,821,000	57,367,000	60,032,000	178,821	187,125	195,819
Dept. Stores	19,406,634	20,307,918	21,251,328	64,689	67,693	70,838
Variety Stores	3,947,112	4,130,424	4,322,304	15,181	15,886	16,624
Jewelry	3,782,649	3,958,323	4,142,208	5,328	5,575	5,834
Sporting Goods/Toys	5,975,489	6,253,003	6,543,488	19,918	20,843	21,812
Discount Dept.	20,557,875	21,512,625	22,512,000	68,526	71,709	75,040
Antiques, etc.	274,105	286,835	300,160	1,192	1,247	1,305
Others	877,136	917,872	960,512	3,987	4,172	4,366
Furniture	16,446,000	17,210,000	18,010,000	50,658	53,010	55,474
Furniture	2,483,346	2,598,710	2,719,510	8,011	8,383	8,773
Home Furnishings	3,420,768	3,579,680	3,746,080	9,774	10,228	10,703
Store/Office Equip.	2,598,468	2,719,180	2,845,580	8,662	9,064	9,485
Music Instr./Suppl.	707,178	740,030	774,430	3,536	3,700	3,872
Radios,TV, etc.	7,236,240	7,572,400	7,924,400	20,675	21,635	22,641
Transportation	252,063,000	263,771,000	276,022,000	733,469	767,538	803,186
New/Used Vehicles	88,222,050	92,319,850	96,607,700	220,555	230,800	241,519
Tires, Batt., Prts.	111,159,783	116,323,011	121,725,702	370,533	387,743	405,752
Marine Sales/Rentals	13,359,339	13,979,863	14,629,166	36,106	37,783	39,538
Auto/Truck Rentals	39,321,828	41,148,276	43,059,432	106,275	111,212	116,377
Drugstore	72,752,000	76,131,000	79,667,000	145,504	152,262	159,334
Apparel	54,707,000	57,248,000	59,907,000	170,232	178,138	186,414
Men's and Boy's	7,166,617	7,499,488	7,847,817	17,917	18,749	19,620
Women's and Girl's	18,162,724	19,006,336	19,889,124	49,088	51,368	53,754
Infants	1,148,847	1,202,208	1,258,047	3,829	4,007	4,193
Family	15,208,546	15,914,944	16,654,146	50,695	53,050	55,514
Shoes	11,433,763	11,964,832	12,520,563	41,577	43,508	45,529
Jeans/Leather	218,828	228,992	239,628	729	763	799
Tailors/Uniforms	984,726	1,030,464	1,078,326	4,924	5,152	5,392
Others	382,949	400,736	419,349	1,473	1,541	1,613
Hardware	99,706,000	104,337,000	109,183,000	423,848	443,534	464,133
Hardware	48,257,704	50,499,108	52,844,572	193,031	201,996	211,378
Lawn/Seed/Fertil.	1,894,414	1,982,403	2,074,477	5,572	5,831	6,101
Others	49,553,882	51,855,489	54,263,951	225,245	235,707	246,654
Vehicle Service	125,974,000	131,826,000	137,949,000	306,682	320,928	335,835
Gasoline	42,831,160	44,820,840	46,902,660	29,539	30,911	32,347
Garage, Repairs	83,142,840	87,005,160	91,046,340	277,143	290,017	303,488
Miscellaneous	82,917,000	86,768,000	90,798,000	320,252	335,124	350,689
Advert. Signs, etc.	1,326,672	1,388,288	1,452,768	4,824	5,048	5,283
Barber/Beauty shop	5,057,937	5,292,848	5,538,678	25,290	26,464	27,693
Book Stores	3,814,182	3,991,328	4,176,708	10,309	10,787	11,288
Bowling	1,907,091	1,995,664	2,088,354	19,071	19,957	20,884
Cig./Tobacco Dealer	580,419	607,376	635,586	1,161	1,215	1,271
Dent./Physician Lab	3,316,680	3,470,720	3,631,920	10,205	10,679	11,175
Florist/Nurseries	6,218,775	6,507,600	6,809,850	14,632	15,312	16,023
Laundry, Dry Clean	2,819,178	2,950,112	3,087,132	9,397	9,834	10,290
Optical Goods/Opt.	1,990,008	2,082,432	2,179,152	5,686	5,950	6,226
Photo Sup./Photog.	5,721,273	5,986,992	6,265,062	16,346	17,106	17,900
Printing	6,716,277	7,028,208	7,354,638	24,423	25,557	26,744
Paper/Paper Prod.	3,565,431	3,731,024	3,904,314	17,827	18,655	19,522
Gifts/Cards/Novel.	11,857,131	12,407,824	12,984,114	39,524	41,359	43,280
Newsstands	663,336	694,144	726,384	1,327	1,388	1,453
Others	16,583,400	17,353,600	18,159,600	66,334	69,414	72,638
TOTAL	\$1,142,106,000	\$1,195,154,000	\$1,250,667,000	3,109,948	3,254,392	3,405,555

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

The following tables provide a breakdown of the retail goods and related services supportable square footage of space for each of the zip codes or subareas of Adams County. Each is based on the population, households and incomes that reside in the zip codes or subareas.

## Zip Code 17304

*Table 81 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category for Zip Code 17304\**

Category	2013 Sales	2023 Sales	2033 Sales	2013 Space	2023 Space	2033 Space
Food	9,010,000	9,428,000	9,866,000	16,826	17,607	18,425
Eat/Drink	3,359,000	3,515,000	3,678,000	8,398	8,788	9,195
General Merchandise	1,772,000	1,854,000	1,940,000	5,781	6,048	6,328
Furniture	532,000	556,000	582,000	1,638	1,713	1,793
Transportation	8,146,000	8,525,000	8,920,000	23,705	24,806	25,956
Drugstore	2,351,000	2,460,000	2,575,000	4,702	4,920	5,150
Apparel	1,768,000	1,850,000	1,936,000	5,502	5,758	6,024
Hardware	3,222,000	3,372,000	3,529,000	13,697	14,334	15,001
Vehicle Service	4,071,000	4,260,000	4,458,000	9,911	10,371	10,853
Miscellaneous	2,680,000	2,804,000	2,934,000	10,350	10,831	11,333
<b>TOTAL</b>	<b>\$36,911,000</b>	<b>\$38,624,000</b>	<b>\$40,418,000</b>	<b>100,510</b>	<b>105,176</b>	<b>110,058</b>

\*Developed by The Chesapeake Group, Inc., 2013.

## Zip Code 17307

*Table 82 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category for Zip Code 17307\**

Category	2013 Sales	2023 Sales	2033 Sales	2013 Space	2023 Space	2033 Space
Food	\$19,193,000	\$20,084,000	\$21,017,000	35,844	37,508	39,249
Eat/Drink	7,155,000	7,487,000	7,835,000	17,888	18,718	19,588
General Merchandise	3,774,000	3,949,000	4,133,000	12,310	12,882	13,483
Furniture	1,132,000	1,185,000	1,240,000	3,486	3,650	3,820
Transportation	17,353,000	18,159,000	19,002,000	50,495	52,840	55,294
Drugstore	5,009,000	5,241,000	5,485,000	10,018	10,482	10,970
Apparel	3,766,000	3,941,000	4,124,000	11,718	12,264	12,833
Hardware	6,864,000	7,183,000	7,517,000	29,179	30,534	31,955
Vehicle Service	8,673,000	9,075,000	9,497,000	21,115	22,093	23,120
Miscellaneous	5,708,000	5,973,000	6,251,000	22,045	23,071	24,144
<b>TOTAL</b>	<b>\$78,627,000</b>	<b>\$82,277,000</b>	<b>\$86,101,000</b>	<b>214,098</b>	<b>224,042</b>	<b>234,456</b>

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

## Zip Code 17316

*Table 83 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category for Zip Code 17316\**

Category	2013 Sales	2023 Sales	2033 Sales	2013 Space	2023 Sapce	2033 Space
Food	\$25,984,000	\$27,191,000	\$28,454,000	48,526	50,780	53,141
Eat/Drink	9,687,000	10,137,000	10,608,000	24,218	25,343	26,520
General Merchandise	5,110,000	5,347,000	5,595,000	16,670	17,442	18,251
Furniture	1,533,000	1,604,000	1,679,000	4,722	4,940	5,172
Transportation	23,493,000	24,584,000	25,726,000	68,361	71,535	74,859
Drugstore	6,781,000	7,096,000	7,425,000	13,562	14,192	14,850
Apparel	5,099,000	5,336,000	5,584,000	15,866	16,605	17,377
Hardware	9,293,000	9,725,000	10,176,000	39,504	41,341	43,259
Vehicle Service	11,741,000	12,287,000	12,857,000	28,583	29,912	31,300
Miscellaneous	7,728,000	8,087,000	8,463,000	29,849	31,236	32,684
<b>TOTAL</b>	<b>\$106,449,000</b>	<b>\$111,394,000</b>	<b>\$116,567,000</b>	<b>289,861</b>	<b>303,326</b>	<b>317,413</b>

\*Developed by The Chesapeake Group, Inc., 2013.

## Zip Code 17320

*Table 84 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category for Zip Code 17320\**

Category	2013 Sales	2023 Sales	2033 Sales	2013 Space	2023 Space	2033 Space
Food	\$25,508,000	\$26,693,000	\$27,933,000	47,638	49,850	52,166
Eat/Drink	9,509,000	9,951,000	10,413,000	23,773	24,878	26,033
General Merchandise	5,016,000	5,249,000	5,493,000	16,361	17,122	17,917
Furniture	1,505,000	1,575,000	1,648,000	4,636	4,852	5,076
Transportation	23,063,000	24,134,000	25,255,000	67,111	70,226	73,489
Drugstore	6,657,000	6,966,000	7,289,000	13,314	13,932	14,578
Apparel	5,006,000	5,238,000	5,481,000	15,578	16,299	17,056
Hardware	9,123,000	9,547,000	9,990,000	38,782	40,585	42,467
Vehicle Service	11,526,000	12,062,000	12,622,000	28,060	29,364	30,728
Miscellaneous	7,587,000	7,939,000	8,308,000	29,303	30,661	32,088
<b>TOTAL</b>	<b>\$104,500,000</b>	<b>\$109,354,000</b>	<b>\$114,432,000</b>	<b>284,556</b>	<b>297,769</b>	<b>311,598</b>

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

## Zip Code 17325

*Table 85 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category for Zip Code 17325\**

Category	2013 Sales	2023 Sales	2033 Sales	2013 Space	2023 Space	2033 Space
Food	\$86,920,000	\$90,957,000	\$95,182,000	162,328	169,867	177,757
Eat/Drink	32,404,000	33,909,000	35,484,000	81,010	84,773	88,710
General Merchandise	17,092,000	17,886,000	18,717,000	55,753	58,343	61,053
Furniture	5,128,000	5,366,000	5,615,000	15,796	16,529	17,295
Transportation	78,588,000	82,238,000	86,058,000	228,680	239,301	250,417
Drugstore	22,682,000	23,736,000	24,839,000	45,364	47,472	49,678
Apparel	17,056,000	17,849,000	18,678,000	53,073	55,541	58,120
Hardware	31,086,000	32,530,000	34,041,000	132,145	138,284	144,707
Vehicle Service	39,276,000	41,100,000	43,009,000	95,617	100,057	104,705
Miscellaneous	25,852,000	27,052,000	28,309,000	99,851	104,484	109,336
<b>TOTAL</b>	<b>\$356,084,000</b>	<b>\$372,623,000</b>	<b>\$389,932,000</b>	<b>969,617</b>	<b>1,014,651</b>	<b>1,061,778</b>

\*Developed by The Chesapeake Group, Inc., 2013.

## Zip Code 17340

*Table 86 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category for Zip Code 17340\**

Category	2013 Sales	2023 Sales	2033 Sales	2013 Space	2023 Space	2033 Space
Food	\$34,926,000	\$36,548,000	\$38,246,000	65,225	68,256	71,427
Eat/Drink	13,020,000	13,625,000	14,258,000	32,550	34,063	35,645
General Merchandise	6,868,000	7,187,000	7,521,000	22,401	23,443	24,534
Furniture	2,060,000	2,156,000	2,256,000	6,345	6,640	6,949
Transportation	31,578,000	33,045,000	34,579,000	91,888	96,155	100,620
Drugstore	9,114,000	9,538,000	9,981,000	18,228	19,076	19,962
Apparel	6,854,000	7,172,000	7,505,000	21,328	22,317	23,353
Hardware	12,491,000	13,071,000	13,678,000	53,099	55,564	58,145
Vehicle Service	15,782,000	16,515,000	17,282,000	38,421	40,205	42,072
Miscellaneous	10,388,000	10,870,000	11,375,000	40,119	41,982	43,933
<b>TOTAL</b>	<b>\$143,081,000</b>	<b>\$149,727,000</b>	<b>\$156,681,000</b>	<b>389,604</b>	<b>407,701</b>	<b>426,640</b>

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

## Zip Code 17344

*Table 87 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category for Zip Code 17344\**

Category	2013 Sales	2023 Sales	2033 Sales	2013 Space	2023 Space	2033 Space
Food	\$12,954,000	\$13,556,000	\$14,185,000	24,193	25,317	26,490
Eat/Drink	4,829,000	5,054,000	5,288,000	12,073	12,635	13,220
General Merchandise	2,547,000	2,666,000	2,789,000	8,307	8,697	9,097
Furniture	764,000	800,000	837,000	2,352	2,464	2,578
Transportation	11,712,000	12,256,000	12,825,000	34,081	35,663	37,319
Drugstore	3,380,000	3,537,000	3,702,000	6,760	7,074	7,404
Apparel	2,542,000	2,660,000	2,784,000	7,911	8,277	8,664
Hardware	4,633,000	4,848,000	5,073,000	19,694	20,609	21,564
Vehicle Service	5,853,000	6,125,000	6,410,000	14,249	14,911	15,605
Miscellaneous	3,853,000	4,032,000	4,219,000	14,881	15,574	16,295
<b>TOTAL</b>	<b>\$53,067,000</b>	<b>\$55,534,000</b>	<b>\$58,112,000</b>	<b>144,501</b>	<b>151,221</b>	<b>158,236</b>

\*Developed by The Chesapeake Group, Inc., 2013.

## Zip Code 17350

*Table 88 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category for Zip Code 17350\**

Category	2013 Sales	2023 Sales	2033 Sales	2013 Space	2023 Space	2033 Space
Food	\$40,749,000	\$42,641,000	\$44,622,000	76,100	79,635	83,333
Eat/Drink	15,191,000	15,897,000	16,635,000	37,978	39,743	41,588
General Merchandise	8,013,000	8,385,000	8,774,000	26,137	27,351	28,621
Furniture	2,404,000	2,515,000	2,632,000	7,405	7,748	8,107
Transportation	36,842,000	38,553,000	40,344,000	107,205	112,184	117,396
Drugstore	10,634,000	11,128,000	11,644,000	21,268	22,256	23,288
Apparel	7,996,000	8,368,000	8,756,000	24,883	26,040	27,248
Hardware	14,573,000	15,250,000	15,959,000	61,949	64,827	67,842
Vehicle Service	18,413,000	19,268,000	20,163,000	44,827	46,908	49,087
Miscellaneous	12,119,000	12,682,000	13,271,000	46,808	48,983	51,256
<b>TOTAL</b>	<b>\$166,934,000</b>	<b>\$174,687,000</b>	<b>\$182,800,000</b>	<b>454,560</b>	<b>475,675</b>	<b>497,766</b>

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

## Zip Code 17353

*Table 89 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category for Zip Code 17353\**

Category	2013 Sales	2023 Sales	2033 Sales	2013 Space	2023 Space	2033 Space
Food	\$10,786,000	\$11,287,000	\$11,812,000	20,143	21,079	22,059
Eat/Drink	4,021,000	4,208,000	4,403,000	10,053	10,520	11,008
General Merchandise	2,121,000	2,220,000	2,323,000	6,918	7,242	7,578
Furniture	636,000	666,000	697,000	1,960	2,051	2,147
Transportation	9,752,000	10,205,000	10,679,000	28,377	29,695	31,074
Drugstore	2,815,000	2,946,000	3,082,000	5,630	5,892	6,164
Apparel	2,117,000	2,215,000	2,318,000	6,588	6,893	7,213
Hardware	3,858,000	4,037,000	4,224,000	16,401	17,162	17,956
Vehicle Service	4,874,000	5,100,000	5,337,000	11,866	12,416	12,992
Miscellaneous	3,208,000	3,357,000	3,513,000	12,390	12,965	13,567
<b>TOTAL</b>	<b>\$44,188,000</b>	<b>\$46,241,000</b>	<b>\$48,388,000</b>	<b>120,326</b>	<b>125,915</b>	<b>131,758</b>

\*Developed by The Chesapeake Group, Inc., 2013.

## Zip Code 17372

*Table 90 - Aggregate Residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013, 2023 and 2033 by Category for Zip Code 17372\**

Category	2013 Sales	2023 Sales	2033 Sales	2013 Space	2023 Space	2033 Space
Food	\$12,758,000	\$13,351,000	\$13,999,000	23,828	24,933	26,145
Eat/Drink	4,756,000	4,977,000	5,219,000	11,890	12,443	13,048
General Merchandise	2,509,000	2,625,000	2,753,000	8,185	8,563	8,980
Furniture	753,000	788,000	826,000	2,320	2,427	2,544
Transportation	11,535,000	12,071,000	12,657,000	33,564	35,124	36,830
Drugstore	3,329,000	3,484,000	3,653,000	6,658	6,968	7,306
Apparel	2,504,000	2,620,000	2,747,000	7,790	8,153	8,549
Hardware	4,563,000	4,775,000	5,007,000	19,397	20,298	21,285
Vehicle Service	5,765,000	6,033,000	6,326,000	14,035	14,688	15,400
Miscellaneous	3,795,000	3,971,000	4,164,000	14,658	15,339	16,083
<b>TOTAL</b>	<b>\$52,267,000</b>	<b>\$54,695,000</b>	<b>\$57,351,000</b>	<b>142,325</b>	<b>148,936</b>	<b>156,170</b>

\*Developed by The Chesapeake Group, Inc., 2013.

## Entertainment Spending

Spending on entertainment activity that is beyond the spending associated with retail goods and services categories is substantial. Essentially, there is little local outlet at the current time so the overwhelming number of dollars are exported. As found in Table 89, spending by local residents on entertainment is estimated to be roughly \$170 million in 2013. This will increase by almost \$7 million by 2033.

*Table 91 – Estimated Additional Spending by Adams County on Entertainment Activity\**

Year	Total Spending Irrespective of Location
2013	\$169,975,000
2023	\$172,354,000
2033	\$176,632,000

\*Developed by The Chesapeake Group, Inc., 2013.

## Demand Generated By Non-County Residents

From a policy perspective, development is most often based on activity supportable by the residents of the jurisdiction. In any jurisdiction there are other markets for activity. For Adams County, the largest and most important secondary market is visitors to its historic and other attractions. While there are additional attractions that include certain activities related to agricultural production, Gettysburg College, and history of President Eisenhower; the National Park Service operated battlefields associated with Gettysburg is the largest in terms of popularity at present.

According to the Chamber of Commerce, Adams County attracts roughly 3 million visitations a year, with about one-half going to the battlefield historic sites. Research conducted by California University of Pennsylvania's Tourism Studies program for 2010 found the following.

- ✓ The average length of the visitor trip is 1.25 days.
- ✓ The percentage of international visitors is estimated to be 1.5% of the visitor trips.
- ✓ The average age of the visitor is 49 years.
- ✓ The average spent on the trip is \$336.43, or roughly \$269 per day.
- ✓ The percentage of visitors staying overnight is 56.4%.
- ✓ The percentage of repeat visitors is 56.7%.

There are 2,237 hotels and motel rooms, 284 inns and guest houses and 110 campground cabins.

The Eisenhower National Historic Site, established in 1967, is the presidential and retirement place of Dwight D. Eisenhower. The site is adjacent to Gettysburg National Military Park. A tour of the Eisenhower home, the farm walking tour, and education programs are available. However, entry to the site is by shuttle bus only, departing from the Gettysburg National Military Park Visitor Center. The lack of direct private vehicle access has hindered visitations.

# Market Assessment & Economic Development Opportunities

National Park Service data indicates that the number of visitations to the Eisenhower National Historic Site has declined.

*Table 92 – Annual Visitations to the Eisenhower National Historic Site*

Year	Visitations
1980	164,443
1981	182,387
1982	148,800
1983	145,351
1984	138,095
1985	136,935
1986	131,634
1987	118,346
1988	118,231
1989	113,847
1990	116,936
1991	109,262
1992	108,113
1993	96,039
1994	112,829
1995	96,481
1996	84,465
1997	74,395
1998	76,825
1999	73,347
2000	76,921
2001	74,826
2002	76,518
2003	69,017
2004	72,272
2005	67,669
2006	70,243
2007	69,747
2008	70,757
2009	64,212
2010	61,210
2011	58,022
2012	53,286

The following is the monthly synopsis of visitations to the historic site dating back to 1985.

# Market Assessment & Economic Development Opportunities

Table 93 – Annual Visitations to the Eisenhower National Historic Site by Month and Year

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2013	297	572	2,448	5,992								
2012	333	762	2,277	5,960	6,424	8,307	6,695	5,755	7,605	5,635	1,837	1,696
2011	379	655	2,014	5,312	6,608	8,608	7,790	7,036	8,088	7,168	2,385	1,979
2010	296	362	2,800	6,328	5,875	9,710	8,265	6,211	10,246	6,847	2,633	1,637
2009	497	1,017	3,026	9,268	6,506	8,506	7,986	6,818	9,814	6,962	2,419	1,393
2008	338	672	6,030	7,841	8,127	8,083	7,512	7,570	10,548	9,701	2,764	1,571
2007	372	400	4,483	10,021	7,498	8,177	8,410	6,205	10,922	9,672	2,291	1,296
2006	404	667	4,108	10,310	7,398	8,792	8,846	6,585	9,481	9,424	2,475	1,753
2005	235	495	4,165	7,616	8,372	8,238	8,668	7,477	9,190	9,040	2,685	1,488
2004	324	776	3,299	7,732	8,587	9,341	9,734	8,219	9,582	10,242	2,787	1,649
2003	328	206	2,434	6,875	7,941	8,721	10,460	8,773	8,132	10,801	3,204	1,142
2002	0	849	2,749	7,728	9,448	11,453	10,405	8,823	10,785	10,252	2,735	1,291
2001	192	765	1,922	7,413	8,281	10,130	11,616	9,288	11,103	9,602	2,976	1,538
2000	64	232	1,589	7,737	9,803	10,813	10,505	10,130	11,015	11,118	2,741	1,174
1999	176	888	1,804	8,111	10,145	9,921	10,014	9,364	9,633	10,936	2,061	294
1998	93	727	1,827	7,438	8,751	9,648	9,718	10,042	12,258	12,171	3,302	850
1997	79	751	1,976	7,800	8,640	9,897	10,469	9,816	10,194	11,811	1,917	1,045
1996	33	498	2,096	8,440	10,797	11,792	11,965	11,522	11,138	12,161	3,152	871
1995	32	601	2,472	10,921	13,118	11,858	14,273	13,026	12,515	14,504	2,457	704
1994	107	427	1,771	9,781	13,839	15,910	16,358	16,425	14,792	17,663	4,243	1,513
1993	313	489	1,450	9,027	12,182	12,174	14,396	14,646	11,737	15,500	3,015	1,110
1992	272	971	2,249	9,557	15,229	13,503	16,617	16,126	13,542	16,029	3,007	1,011
1991	174	783	3,080	10,041	13,309	14,233	16,252	15,852	14,174	15,882	3,726	1,756
1990	145	1,173	3,067	10,263	12,737	16,314	17,728	17,298	15,372	17,449	4,129	1,261
1989	0	941	2,898	10,538	12,948	15,225	17,963	17,381	14,344	17,482	3,111	1,016
1988	141	807	2,375	10,924	13,005	15,679	19,286	16,892	15,336	18,309	3,682	1,795
1987	116	942	2,835	10,648	13,089	14,580	19,857	18,658	14,408	18,712	3,053	1,448
1986	155	539	3,460	10,728	14,123	17,548	22,673	22,811	15,265	18,966	3,606	1,760
1985	150	986	3,104	11,737	15,273	18,395	24,462	20,921	15,926	19,795	4,215	1,971

The Gettysburg NMP draws substantially larger numbers of both visitations and likely unique visitors. While the number of visitations to the Gettysburg NMP has declined since 2002; the numbers have increased continually but slightly since 2009.

# Market Assessment & Economic Development Opportunities

*Table 94 – Annual Visitations to the Gettysburg National Military Park by Year*

Year	Visitations
1990	1,243,642
1991	1,415,840
1992	1,299,203
1993	1,411,453
1994	1,674,532
1995	1,642,982
1996	1,632,720
1997	1,727,070
1998	1,701,660
1999	1,641,838
2000	1,542,184
2001	1,792,380
2002	1,833,033
2003	1,769,688
2004	1,724,420
2005	1,705,601
2006	1,666,365
2007	1,647,745
2008	1,455,951
2009	1,013,002
2010	1,031,554
2011	1,124,659
2012	1,126,577

In April of 2013, the park had 123,374 visitors, a number 6.7% higher than April of last year's number of 115,603. Table 95 contains the estimates of monthly visitations to the Gettysburg National Military Park from 1985 through the first quarter of 2013.

# Market Assessment & Economic Development Opportunities

Table 95 – Annual Visitations to the Gettysburg National Military Park by Month and Year

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2013	18,550	19,723	65,688	123,374								
2012	18,044	25,236	105,836	115,603	160,222	156,021	153,421	114,857	100,914	109,304	48,422	18,697
2011	12,083	17,258	48,012	117,034	161,856	163,247	171,260	126,524	94,824	118,897	54,793	38,871
2010	13,944	11,510	52,605	106,505	145,359	143,320	163,562	135,574	90,398	108,538	44,790	15,449
2009	16,536	22,727	51,699	112,298	151,891	134,576	146,210	120,671	90,959	106,960	44,416	14,059
2008	27,040	29,791	92,570	146,111	217,249	185,355	198,074	173,833	120,347	163,924	77,059	24,598
2007	29,614	25,219	79,163	170,144	245,631	215,439	258,706	180,868	155,723	178,087	82,132	27,019
2006	28,963	33,301	82,039	192,023	246,551	216,288	246,909	183,967	139,536	177,361	85,181	34,246
2005	26,499	34,888	93,630	191,164	232,966	244,829	271,009	193,665	140,625	162,064	83,371	30,891
2004	31,361	39,848	82,783	184,949	244,649	240,455	261,830	208,318	143,035	173,140	82,633	31,419
2003	24,804	23,794	76,899	179,420	237,953	243,078	288,519	238,625	137,373	184,498	105,178	29,547
2002	30,445	47,223	94,934	187,855	245,128	264,814	269,468	230,940	159,279	184,235	89,855	28,857
2001	24,129	40,406	73,575	198,652	237,066	239,223	297,748	220,903	160,970	174,143	89,312	36,253
2000	9,882	36,063	77,896	174,568	210,475	187,856	203,148	206,095	149,263	173,637	83,932	29,369
1999	11,487	41,174	75,529	199,320	215,575	203,012	235,538	224,031	137,728	172,971	99,443	26,030
1998	14,679	44,510	70,268	186,752	212,667	196,995	259,630	243,873	152,922	181,410	107,217	30,737
1997	12,570	37,016	81,776	192,067	239,675	193,303	268,621	245,381	147,114	185,460	97,418	26,669
1996	8,045	32,032	73,978	177,249	220,024	196,849	243,029	225,903	148,719	174,346	103,986	28,560
1995	25,940	26,799	78,438	133,883	250,926	218,401	282,564	203,026	148,084	177,398	84,419	13,104
1994	12,424	21,519	69,008	121,693	233,165	280,478	285,524	195,174	126,573	209,438	83,764	35,772
1993	25,378	18,757	50,060	101,995	210,582	227,796	221,095	159,579	96,912	193,772	77,076	28,451
1992	20,323	29,915	55,390	113,302	179,432	171,083	169,759	163,383	153,349	166,744	54,974	21,549
1991	22,758	29,085	77,021	137,720	183,861	176,739	205,394	186,520	128,162	168,283	74,624	25,673
1990	26,492	31,605	59,736	128,244	155,358	143,797	185,094	157,758	116,250	147,938	70,209	21,161
1989	24,167	27,323	59,781	139,365	171,265	183,156	210,289	185,697	126,463	152,354	55,717	17,151
1988	20,213	25,846	55,156	142,637	177,535	203,271	276,296	188,455	133,049	162,663	56,208	23,215
1987	18,251	23,453	57,586	156,982	168,931	170,852	203,729	186,994	116,473	150,395	59,093	22,508
1986	31,453	14,889	66,440	130,852	200,603	180,398	208,450	198,630	114,673	140,965	54,387	21,421
1985	16,756	26,104	54,112	107,507	165,222	158,645	203,121	179,418	130,263	155,810	104,871	19,301

In addition to the historic sites and activity, Adams County is home to several large events and festivals including but not limited to those that follow.

**National Apple Harvest Festival** - The Annual National Apple Harvest Festival runs during the first two full weekends in October. It was started in 1965 and is sponsored by the Upper Adams Jaycees. It takes place at the South Mountain Fairgrounds on Route 234 near Arendtsville, ten miles northwest of Gettysburg. Attendance in good weather is estimated to be 20,000 to 25,000 people per day, or between 80,000 and 100,000 for the four days (two weekends) of the event. Most of the patrons come from south central Pennsylvania, northern Maryland, Baltimore, and Washington areas.

**Gettysburg Festival** - The festival is held in June and is a “city wide” event with music, performing arts, and other activities. The average attendance is 23,000 people from 30 states and the District of Columbia. It is described as being “a moveable feast” with art in the street, at farms, gallery events and, with the cooperation of Gettysburg College and the Lutheran Theological Seminary, on their campuses.

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**Gettysburg Wine & Music Festival** – The festival is held in September at the Gateway Gettysburg Complex. It is hosted by the Gettysburg Adams Chamber of Commerce.

**Others of Note** - There is also The Gettysburg Bluegrass Festival, Adams County Irish Festival, an annual Gettysburg 19th Century Baseball Festival, various reenactments, Annual East Berlin Colonial Day, the Historic East Berlin Antique Show, the Town and Country Christmas House Tour, a Strawberry Festival, etc.

Adams County is unique in having such an asset as the Gettysburg NMP. The name Gettysburg is recognized nationally and internationally. That recognition does not appear to be waning. However, it is seasonal in nature and visitations may fall over time.

The following are the estimates of sales and supportable square footage of space for retail goods and related services generated by the visitor market. It is noted that without an increase in visitations, the 2013 figures are not likely to increase. Furthermore, transient accommodation room nights may rise marginally in the foreseeable future, but the increase is likely to be absorbable by existing operations.

*Table 96 - Aggregate Non-residentially Generated Demand (Retail Goods and Related Services Supportable Square Footage of Space) for 2013\**

Category	2013 Sales	2013 Space
Food	\$3,990,000	7,452
Eat/Drink	35,910,000	89,775
General Merchandise	7,980,000	26,029
Drugstore	1,596,000	3,192
Apparel	5,586,000	17,380
Vehicle Service	7,980,000	19,427
Miscellaneous	16,758,000	64,724
<b>TOTAL</b>	<b>\$79,800,000</b>	<b>227,979</b>

\*Developed by The Chesapeake Group, Inc., 2013.

While the battlefield and related activity is likely to remain the dominant force in attracting non-residents to Adams County; probably the greatest opportunity for growth rests in expansion of agri-tourism, agri-tainment and agri-education. Agriculture tourism and related areas is one of the fastest growing components of tourism in the United States. From dairy farms employing cutting edge technology, to the fruit belt, to those smaller operations now participating in the agri-tourism industry and to the still evolving winery activity; there is significant growth potential through increased coordination. In addition, this activity could well be coupled with expanded ag-based research and development activity previously identified.

## Traditional Office Space Demand

Estimates of office space are premised upon that which follows.

- ✓ Opportunities to provide a growth in employment within Adams County for current and future residents.

# Market Assessment & Economic Development Opportunities

- ✓ The potential to diminish commuting to and from Adams County because of the provision of space for economic activity within Adams County.
- ✓ Changing demographics which will create growing demand for medical and other select services.
- ✓ Declining average gross square footage per employee.
- ✓ Continued growth in home studios and other work-office activity.

Two scenarios are provided. The first is premised upon capture of a share of future growth based on the household growth and changing population dynamics. The second is based on an aggressive economic development program to reverse commuting patterns from Adams County.

As found in Table 97, assuming the capture of growth generated by the expansion of households in Adams County, an addition of 215,000 square feet of office space is absorbable between 2013 and 2033.

*Table 97 – Scenario 1 Absorbable Square Footage of Office Space in Adams County for 2013 to 2023, 2023 to 2033 and 2013 to 2033\**

Year	Square Footage of Space	Direct Employment
2013 to 2023	107,000	535
2023 to 2033	109,000	545
Total 2013 to 2033	215,000	1,080

\*Developed by The Chesapeake Group, Inc., 2013.

Some of the types of operations that could be associated with such space include those that follow as were defined as being under-represented in Adams County.

- Offices of dentists
- Offices of chiropractors
- Offices of optometrists
- Offices of mental health practitioners (except physicians)
- Offices of physical, occupational and speech therapists, and audiologists
- Outpatient mental health and substance abuse centers
- Kidney dialysis centers
- Freestanding ambulatory surgical and emergency centers
- Medical laboratories
- Diagnostic imaging centers
- Home health care services
- Ambulance services
- General medical and surgical hospitals
- Nursing care facilities
- Residential mental retardation facilities

In the second scenario, opportunities to capture space are more substantial over the next ten year horizon, increasing by 672,000 square feet between 2013 and 2003 as found in Table 98.

# Market Assessment & Economic Development Opportunities

Table 98 – Scenario 2 Absorbable Square Footage of Office Space in Adams County for 2013 to 2023, 2023 to 2033 and 2013 to 2033\*

Year	Square Footage of Space	Direct Employment
2013 to 2023	563,000	2,815
2023 to 2033	109,000	545
Total 2013 to 2033	672,000	3,360

\*Developed by The Chesapeake Group, Inc., 2013.

## Traditional Industrial Space Demand

As previously defined, there are opportunities in the industrial arena. Furthermore, there are changes in industrial activity also previously defined that increase its compatibility with the assets of Adams County as identified in the survey. GE's CEO Immelt challenges communities to discard outdated thinking:

"The geographic nature of manufacturing has changed. The notion that one or two countries will manufacture for the rest of the world is old thinking. Many places can compete. We must be aware of the fact that manufacturing competitiveness has become the key source of country competitiveness.

We must always challenge old-fashioned thinking. I find that our leaders can have a very old view of manufacturing. Today, there is more innovation in our plants than anywhere in our company."

As with traditional office space demand estimates, two scenarios are provided. The first is premised upon capture of a share of future growth based on the growth in households. The second is based on an aggressive economic development program to reverse commuting patterns from Adams County.

As found in Table 99, assuming the capture of growth generated by the expansion of households in Adams County, an addition of 215,000 square feet of office space is absorbable between 2013 and 2033.

Table 99 – Scenario 1 Absorbable Square Footage of Traditional Industrial Space in Adams County for 2013 to 2023, 2023 to 2033 and 2013 to 2033\*

Year	Square Footage of Space	Direct Employment
2013 to 2023	150,000	300
2023 to 2033	175,000	350
Total 2013 to 2033	325,000	650

\*Developed by The Chesapeake Group, Inc., 2013.

As found in Table 100 and with an aggressive effort, 1.123 million square feet could be added.

Table 100 – Scenario 2 Absorbable Square Footage of Traditional Industrial Space in Adams County for 2013 to 2023, 2023 to 2033 and 2013 to 2033\*

Year	Square Footage of Space	Direct Employment
2013 to 2023	948,000	1,900
2023 to 2033	175,000	350
Total 2013 to 2033	1,123,000	2,250

\*Developed by The Chesapeake Group, Inc., 2013.

# Market Assessment & Economic Development Opportunities

Some of the types of operations that could be associated with such space include those that follow that were defined as being under-represented in Adams County.

- Pharmaceutical preparation manufacturing
- All other plastics product manufacturing
- Ready-mix concrete manufacturing
- Machine shops
- Precision turned product manufacturing
- Dental laboratories
- Sporting and athletic goods manufacturing
- Sign manufacturing

Others would include those related to additive manufacturing, drone development, etc. identified in the “Select Manufacturing Opportunities Review.”

## Non-traditional Industrial Space Demand

There are significant research and development opportunities as well which can generate light industrial, flex and office space development. As previously defined, the potentials include but are not limited to research and development for either identified needs within an industry or further exploration for current Adams County agricultural and manufacturing businesses.

Pursuit of research and development activity could generate 100,000 square feet of additional space by 2023 and an additional 250,000 to 300,000 square feet between 2023 and 2033. This could create roughly 350 additional jobs by 2023, and between 800 and 1,000 additional jobs between 2023 and 2033. Some of the associated space would likely occur on the farms themselves.

## Synopsis of Development Opportunities

The total non-residential opportunities for Adams County are substantial. Table 101 contains the synopsis of potential generated space from 2013 to 2033.

Table 101 – Total Potential Supportable Square Footage of Space for Adams County for 2023 and 2033\*

Space	2023	2033
Residential Generated Retail Goods and Services	3,254,392	3,405,555
Traditional Office Scenario 1	107,000	109,000
Traditional Industrial Scenario 1	150,000	175,000
<b>Subtotal for Scenario 1 (Rounded)</b>	<b>3,511,000</b>	<b>3,690,000</b>
Traditional Office Scenario 2	563,000	109,000
Traditional Industrial Scenario 2	948,000	175,000
<b>Subtotal for Scenario 2 (Rounded)</b>	<b>4,765,000</b>	<b>3,974,000</b>
Non-traditional R & D Space	100,000	250,000 to 300,000
<b>TOTAL for Scenario 1 (Rounded)</b>	<b>3,611,000</b>	<b>3,940,000 to 3,990,000</b>
<b>TOTAL for Scenario 2 (Rounded)</b>	<b>4,875,000</b>	<b>4,224,000 to 4,274,000</b>

\*Developed by The Chesapeake Group, Inc., 2013.