Choose Chester!
For Business. For Life.
Chester County Economic Development

Economic Development Strategic Plan
Target Industry Analysis
Marketing Plan

Sponsored by

CHESTER DEVELOPMENT ASSOCIATION,
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and
THE SOUTH CAROLINA POWER TEAM

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July 2008

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Developed by

The Sanford Holshouser Business Development Group

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Executive Summary

The mission of the Chester County Department of Economic Development (CCED) is "to create an environment that supports existing industry expansion, encourages new industry investments, fosters entrepreneurialism, and welcomes visitation by others—all of which support the provision of public services and otherwise improves each citizen's prosperity and overall quality of life." This strategic plan was designed to enhance the core elements of the CCED economic development program cited in the mission statement, existing business retention and expansion and business recruitment, and identify new strategies in other elements of economic development such as small business and entrepreneur development, workforce development, and community development. Led by Chester County leaders, this strategic plan is a guide for the County's economic future.

The Sanford Holshouser Business Development Group (Sanford Holshouser) was engaged by Chester County to create an economic development strategic plan. Parallel to the strategic planning process, Applied Marketing Sciences was engaged to analyze target industry sectors best suited to be recruited to the County. Market Force was a key part of the consulting team leading the development of the marketing plan. This report summarizes the research, analysis, and recommendations of the firms' consulting work.

The Chester County planning project was funded through a grant from the South Carolina Power Team (Palmetto Economic Development Corporation and Santee Cooper) and the grant match was provided by Chester Development Association and Chester County. Each organization is commended for its role in providing a roadmap for the County's economic development program.

This study includes a SWOT (strengths, weaknesses, opportunities, and threats) analysis, economic and demographic profile, target industry review and analysis, marketing plan, and recommendations for the economic development program. The SWOT information was gathered from local leaders through interviews and focus groups and from economic development allies outside the County. The SWOT reports that the County's greatest assets are location, Carolinas I-77 Mega-site, quality of life, the economic development organization, and pro-business climate. Challenges cited include infrastructure needs, image, lack of amenities, slow growing tax base, and educational attainment. Chester County has created many opportunities in economic development. Local leaders would like to capitalize on industrial sites, tourism, downtown development, the strong network of existing businesses, and new residential developments. Several of the threats identified are common to most rural counties, such as unfunded mandates, globalization, loss of young professionals, and anti-growth organizations.

The target industry analysis identified key industry sectors on which to focus CCED's business recruitment program. These targets do not preclude CCED from recruiting other businesses; rather, the targets are meant as a guide on how to focus limited recruitment resources. The recommended targets for recruitment include automotive manufacturing, fabricated metal products and machinery manufacturing, plastics and rubber manufacturing, pharmaceuticals and medial devices, and value-added food manufacturing.

Sanford Holshouser conducted a peer community review of five counties in South Carolina that are either similar to Chester County in economics and demographics or are regular competitors for new and expanding businesses. The findings of the review were factored into the recommendations, especially information discovered on funding, staffing, and program activities.

The consulting team collaborated on recommendations to enhance the economic development organization and program. The recommendations are founded on input from local leaders, quantitative and qualitative research, best practices in economic development, and the consulting team's experience in economic development. Sanford Holshouser suggests an in depth review of the recommendations section to fully understand the scope and context of the bulleted listing.

- **Product Development**
  - Distinguish sites by developing business parks.
  - Raise development standards in some parks through restrictive covenants.
  - Gain firmer control over land through public ownership or public-private partnerships.
  - Certify sites.
  - Create a stronger advantage through shell or virtual shell buildings.
  - Continue focused promotion of the Carolinas I-77 Mega-site.
- **Workforce Development**
  - Investigate creating a guaranteed worker program.
  - Work with York Tech to determine if the REWARDS programs can be adopted locally.
  - Investigate an education endowment program which would fund a technical school education for every high school graduate.
- **Economic Development Organization and Funding**
  - Maintain current three staff positions.
  - Focus on core program components: business recruitment, marketing, business retention and expansion, and product development.
  - New funds to implement this strategic plan will be needed.
  - Develop a policy that allows for ongoing funding for economic development initiatives.
- **Existing Business Retention and Expansion (BRE)**
  - Regular visitation and assessment.
  - Develop a confidentiality policy on handling company information.
  - Expand business and industry appreciation events.
  - Create a BRE brochure.
  - Develop a business resource guide of programs supporting local businesses.
  - Turn existing business leaders into ambassadors of Chester County.
  - Network cluster industries.
  - Develop an early warning system that identifies companies at risk for downsizing.
  - Help local companies take advantage of financing and incentive programs.
  - Set a course for professional development and training in BRE.
- **Downtown Development**
  - Review examples of downtown redevelopment incentive programs.

  - Consider active storefront ordinances.
  - Explore examples of retail incubators.
  - Review building codes to ensure codes encourage redevelopment.
  - Maintain a public commitment to downtown by retaining public services in downtown.
- **Local Leadership Development**
  - Create local leadership/youth leadership development programs.
  - Investigate a local government academy to prepare citizens for public service.
  - Reach out to partners for regular economic development education programs.
- **Small Business Development**
  - Research feasibility of small business incubator with York Tech.
  - Continue referrals to small business support agencies.
  - Determine if a business plan competition will bolster new business start-ups.
  - Expand access to financing programs for small businesses.
- **Gateways**
  - Implement, over time, the Highway 9/I-77 Corridor master plan.
  - Improve municipal gateways.
- **Residential Development and Housing**
  - Review land use changes made by neighboring York and Lancaster Counties to guide residential growth.
  - Review the Chester County land use plan for sustainable growth practices.
  - Develop a financing plan to ensure infrastructure is not out-paced by residential growth.
  - Develop forums for local elected leaders to learn from neighboring public officials dealing with urban growth.
- **Marketing Plan**
  - New marketing materials for consistent imaging and recruitment.
  - Ongoing public relations strategies for internal and external communication.
  - Update the website with consistent image.
  - Media and advertising to support communications and recruitment.

The Chester County Economic Development Strategic Plan, Target Industry Analysis, and Marketing Plan are designed to be implemented over a three to five year period. The leadership team identified items in **product development, workforce development, economic development organization and funding, and existing business retention and expansion as the top four priority items** for the coming year. CCED will need new resources both funding and leadership support to accomplish most, if not all, of the recommendations in this study. Given the positive attitude, passion, and commitment evident in Chester County, we believe this study will not gather dust.

SWOT ANALYSIS

SWOT Analysis

A strengths, weaknesses, opportunities, and threats (SWOT) analysis provides the consulting team with valuable input from Chester County leadership. Through interviews and focus groups, local opinion leaders shared the assets they believe Chester County possesses in economic development, challenges that need to be overcome, opportunities ready for capture, and threats to be avoided. Sanford Holshouser uses an asset-based strategy in economic development, and this SWOT analysis is an important part of the foundation upon which the Chester County economic development strategy is built.

The SWOT report provides input from community leaders and external allies. It does not include comments or observations from the consulting team. Professional guidance comes in the recommendations section of this report.

Success - One of the questions asked of interview participants was: To what does Chester County owe its success over the last five years? The community has recruited top-notch companies, retained key employers, and expanded the public-private economic development partnership. Responses included labor force stability; pro-business approach of leadership; aggressive but cooperative economic development team; public-private partnership between County and Chester Development Association (CDA); connections between schools and businesses; outstanding rail service; and glowing comments about the Chester County Economic Development (CCED) staff, specifically Director Karlisa Parker.

Strengths

- **Location & Access** - Chester County's mid-Atlantic seaboard location; proximity to Charlotte, Columbia, and the Greenville-Spartanburg area; access to I-77 and three railroads; and Charlotte Douglas International Airport are not only strengths for recruiting business but also for recruiting people. All of the urban amenities of Charlotte and world-class financial institutions are just a few minutes drive north.

- **Mega-Site** - Local leaders know the importance of the Chester County mega-site. Having received regional, state, and national attention, the mega-site is well-known to site selection consultants and economic development allies as one of the best mega-sites in the U.S. Local leaders know a major location project will not only provide jobs and tax base but also spin-off developments.

- **Quality of Life** – There is a negative perception of South Carolina schools but Chester is trying to change the image locally with advanced learning programs. Local health care options have been expanding to provide better service although the lack of obstetrician specialty is a concern. Outdoor recreational

opportunities exist on the Catawba and Broad Rivers, state parks, and planned greenway trails that could form a base for tourism development. One interview participant commented on how easy it is to meet new people and become involved in the community.

- **Infrastructure** - Catawba and Broad Rivers provide Chester County with a good water supply. Overall utility rates are reportedly low. Utility service is also reliable, important to all businesses. The Chester Catawba County Airport serves local private aircraft.

- **Economic Development Organization** - Local leaders had high praise for Karlisa Parker, CCED staff, and leadership of the CDA. There was strong support for the newly instituted existing industry program. There is recognition of the financial commitment from the County to economic development.

- **Labor** – Despite the negatives in the labor force noted below in "Weaknesses" the silver lining in the dark cloud of manufacturing layoffs is labor availability. In addition to workers counted as unemployed are a significant number of underemployed. South Carolina's status as a right-to-work state is a plus. Adjectives used to describe the local labor force include productive, loyal, and skilled.

- **Land Availability** - Local leaders are not exaggerating when they discuss industrial land availability in Chester County. There are thousands of acres zoned for industrial use along SC 9 near the I-77 interchange.

- **Education & Training** - The Chester County campus of York Technical College is under construction. The campus will outreach York Tech's services across Chester County. In addition, developing a business incubator on campus is under consideration. Workforce training programs now include apprentice programs in partnership with local industry.

- **Business Climate -** Local officials are business friendly and supportive. Chester County's incentives were described as competitive. Chester County is in an attainment area, an air quality designation that allows for industrial development. The cost of living, taxes, and cost of doing business was reported as very favorable. Companies in Chester County can make a true economic and social impact whereas in large markets, the company may be a smaller fish in a larger pond.

- **Economic Development Partners -** Chester County's economic development efforts are supported by utility allies, transportation partners, and regional and state economic development organizations.

Weaknesses

- **Infrastructure Needs** - There were many positive comments under the heading of infrastructure, but there is a need to extend sewer service into more industrial areas and increase treatment capacity.

- **Lack of Amenities** - Proximity to the urban center of Charlotte means that shopping, cultural programs, affordable professional housing, and entertainment are a short drive. However, locals would like to see more options closer to home. One deterrent to more retail development is stagnant population growth.

- **Slow Growing Tax Base** - Industry closures have been a drain on County coffers in spite of recent new business developments. The drain makes investments for Chester County's future harder.

- **Education** - Strides have been made locally to overcome the state's negative image in education; however, educational attainment scores remain low, drop-out rates remain high, and SAT scores are not meeting state and national averages. Another hurdle to improving the local school system is recruiting teachers and encouraging more teachers and administrators to live in the local community. Given Chester County's limited housing and amenities opportunities, many educators choose to live in York County. When recruiting professional positions, employers have a hard time convincing top management to live in Chester County because neighboring York County schools have higher test scores.

- **Labor Force** - The local labor force is seen as an asset in economic development, but there were comments on labor challenges. Not all eligible workers take advantage of retraining opportunities; highly skilled workers are exiting the county for work opportunities; soft skills, such as arriving at work on time, are needed; and because not all employers, employees and unemployed take advantage of advanced manufacturing training, many workers remain unskilled. One employer stated that people come in every day looking for a job but do not have the right skills. A mismatching of skills was a common theme among employers. Available labor is important when recruiting new business, but local officials are concerned about the exceptionally high unemployment rate.

- **Image** - Local opinion leaders cited blighted areas and buildings, vacant lots, and the general perception of an "old textile town" as negative images associated with the County. Downtowns have seen some redevelopment but more renovations are needed. Some outsiders also perceive the County as having an untrained workforce and high taxes.

- **Media Relations** - Local media relations have improved recently, but more work can be done to strengthen the partnership with local media outlets. It is important because companies and people read/listen to local press when making relocation decisions.

- **Rail Crossings** - As much as the rail is a significant asset in economic development, locals do raise concerns about traffic delays due to the numerous rail crossings.

- **Health Care** - As mentioned in the strengths section, health care options are growing but needs, such as local obstetrics care and other specialties, remain.

- **Workforce Training** - Local employers cite a need for more funding and effort to be placed on incumbent worker training programs. They also have a need for advanced manufacturing training in areas such as lean and six sigma. Specific skills needed in Chester County include electrical, maintenance and mechanical skills.

- **Housing** - Housing options are limited in Chester County. Many professional and mid-management people choose to live outside Chester County due to the lack of amenities described above as well as limited executive housing options. Professional apartment housing is also limited. The lack of transitional housing encourages newcomers, such as teachers, to reside outside the County. The residential market will completely change with the Montrose and other proposed mixed-use developments.

- **Site Search** - Some observers commented that the SC DOC tends to ignore Chester County when there are companies searching for sites in the state because Chester gets so many prospects from the Charlotte Regional Partnership. DOC representatives deny that Chester's relationship with Charlotte influences their protocol.

Opportunities

- **Strategic Action** - Local leaders see this strategic planning project as an opportunity to build support for economic development, focus efforts and investment, and guide strategic actions.

- **Product Development** - Chester County leaders tout the amount of industrially zoned land. At the same time, they recognize there are opportunities to improve product, such as a spec building program including a virtual building, public-private partnerships, certified sites that are more appealing in appearance, diversified product, extended infrastructure, secure property, park covenants, and restrictions for higher end development. There are several vacant industrial buildings in Chester County, some of which could provide opportunities; however, most are not suitable for modern manufacturing processes.

- **Mega-Site** - According to several economic development consulting firms, Chester County is home to one of the top mega-sites in the Southeast. The opportunities that come with that site are several: jobs, spin-off development, infrastructure extensions, residential and commercial development, etc.

- **Tourism** - Tourism development has been growing in parts of Chester County. The Carolina Thread Trail is designed to come through Chester and link to the state park. There is also an initiative underway to work with Duke Energy to create white water recreational opportunities on the Catawba River in the Great Falls area. Most of Chester County lacks tourism

Destinations, and communities have not focused on tourism development, but there are opportunities.

- **Retirees** - Tourism also helps build the retirement industry; tourists are often attracted to the area after a visit and choose to move to the county. In general they are active retirees, are relatively wealthy with higher tax-base homes, require little in the way of services, become civic leaders, support education and some work from home, contributing to the which benefits all citizens.

- **Regional Partnership** - The Charlotte Regional Partnership offers many avenues for marketing, advertising, promotion, lead generation, and technical support for the existing industry program. Chester County, along with three other South Carolina counties, benefits from its economic development alliance with Charlotte.

- **Existing Business Networking** - Local employers would like more opportunities to meet and share ideas, network, and learn from each other.

- **Downtown Development** - Downtown development is predominantly a municipal or chamber function. Chester County's downtowns have attacked redevelopment on varying levels. Local leaders would like to see more redevelopment, tighter ordinances, and a renewed focus on municipalities' business hubs.

- **Recruit Service Businesses** - CCED has been understandably focused on manufacturing and large employers. Massive layoffs have forced an aggressive recruitment program. The new Business Retention and Expansion Program offers an opportunity to focus on smaller companies and service businesses. Locals would like to see the recruitment program expand into recruiting large service companies as well. There is a gap in the recruiting of retail and smaller service businesses.

- **Maximize New Residential Developments** - Changing the housing perception would bring more management and professional workers home to Chester County. Proposed developments, such as Montrose, are helping to change the image. Improving the image of public schools and recreational opportunities are part of the housing equation.

- **York Technical College - Chester Campus** - Bringing York Tech closer will not only benefit local students, workers in retraining, and businesses, it will bolster the image of Chester County. In addition, local leaders are energized about the prospects of an incubator facility located on the York Tech campus. The incubator could fill an acknowledged gap in entrepreneur training and support.

- **Workforce Development** - Chester County is striving to meet the workforce challenge through innovative programs in secondary schools, localizing York Tech, and through state and federal agencies such as One-Stop.

Threats

- **Unfunded Mandates** - Most localities are faced with unfunded federal and state mandates. Communities with a diverse and growing business base are better equipped to deal with the financial obligations to mandates. Communities such as Chester County that have seen shrinking industrial base and are struggling just to maintain revenue are hardest hit by unfunded mandates.

- **Interbasin Transfer** – Discussion involving the transfer of water from the Catawba River in North Carolina is a looming threat to Chester County's water supply. Potential access to the Broad River is one advantage Chester County has over others in the Catawba River Basin.

- **Globalization** - The term globalization is a reality for communities such as Chester County. Thousands of jobs lost, workers with skills unmatched to emerging industries, and local governments with revenue shortfalls are the main themes of the book, "The World is Flat."

- **Environmental Regulations** - An ongoing threat to economic development is the changing environmental regulatory attitude in Columbia and Washington.

- **Brain Drain / Aging Population** - Chester County is like most rural communities in that the young working age groups often leave for brighter job opportunities. In addition to young people migrating for work, Chester County is also losing young professionals from its population base as workers move outside the County. Residential developments will draw back some commuters, but the draw for existing youth is jobs.

- **Anti-Growth Groups** - Chester County has been found by anti-growth organizations opposed to business recruitment, industrial development, and the zoning of industrial land. The CCED and Chester Development Association have done a good job working to provide information on developments and supporting land use planning. This study comments on internal communication and on ways to openly communicate with all Chester citizens in the recommendations section.

- **National Economy** – If the economy continues to deteriorate, it will have an effect on Chester County in slowdowns of production and shutdowns of existing local industries; this will come on the heels of the county's losses in textile apparel companies and other jobs. Nationally, companies are holding off on constructing new facilities, so Chester County's opportunities become more limited.

Economic Development Priorities

Focus group and interview participants were asked to rank economic development priorities. The leading priority of "marketing for business recruitment" shows the desire to be more aggressive in recruiting business and getting out the message externally. Existing industry/business support (BRE) is the second priority. These two core programs are the foundations of the CCED activities. Workforce development, park and site development, and community development all

were ranked closely in the next tier. Workforce development is critical to economic development, and its ranking below shows that local leaders understand it is a prerequisite. There was considerable drop off in scoring with small business and entrepreneur, retail, and tourism development.

1. Marketing for Business Recruiting
2. Existing Industry/Business Support
3. Workforce Development
4. Park/Site Development
5. Community Development
6. Small Business Development and Entrepreneurship
7. Retail Development
8. Tourism Development

Economic Development Support

Economic development is not an individual sport. Success comes from several factors: top-notch education and training programs; creating a desirable community with recreation, arts, and cultural programs; nurturing small businesses; and quality transportation systems, to name a few influencing factors. The consulting team asked Chester County leaders to rate the following economic development-related support programs as A (excellent), B (good), or C (poor).

- **Rated: A**
  - York Technical College
  - Transportation System
  - Infrastructure System
- **Rated: B**
  - Tied - Workforce Development
  - Tied - Parks and Recreation
  - Downtown Development
  - Small Business and Entrepreneur Support
  - Arts and Cultural Programs
  - Public Education System
  - Tourism Development
- **Rated: C**
  - Retail Development

REVIEW OF ECONOMIC DEVELOPMENT ORGANIZATIONS

Review of Economic Development Organizations

Chester County selected five counties for the consulting team to review as part of the strategic planning process. The goal of the review is to benchmark Chester County's economic development organization and learn best practices. Some counties were selected because of their proximity to Chester and because Chester regularly competes for projects with their neighbors. Other counties were selected because Chester County regularly competes with them even though they are not adjacent. Some counties were considered primarily because of their mega-sites or proximity to mega-sites. The counties reviewed are: Lancaster County, York County, Union County, Charleston County, and Aiken County. The consulting team's review included economic development organizational structure, budget, staffing, leadership, program activities, and best practices.

Economic Development Organization

Sanford Holshouser asked each county to describe the type of economic development organization it uses to carry out the primary functions of economic development. Three of the groups operate as county public entities like CCED: Union, York, and Charleston Counties. Aiken and Lancaster Counties operate with a public-private partnership. The public entities operate as county departments. The public-private partnerships are economic development nonprofit organizations. Aiken County's program includes the smaller county of Sedgefield. The consulting team reviewed organizational structure because there has been a favorable trend toward organizing economic development programs in public-private partnerships or operating as a county department with a sister non-profit organization. Chester County falls into the latter group with the CCED being a county department and the Chester Development Association being a sister organization driven by the private sector. Bringing together the public and private sectors for economic development can build a strong leadership base and increase overall funding.

Funding

Today, most economic development organizations have a mix of public and private dollars funding operations and programs. Incentives and product development are still usually funded through public dollars separately. The three public entities reviewed in this study rely on county appropriated funds for operations. Aiken County's budget is a mix of public (two-thirds) and private dollars (one-third). Lancaster County's budget is about 25% private funding. Chester County's budget for economic development is $223,396 and the CDA's annual budget is about $60,000.

Charleston County	$1 million
Aiken County	$400,000
York County	$450,000
Lancaster County	$265,000
Chester County	$223,396
Union County	$144,000

Staffing and Programs

Staffing of the comparison economic development organizations ranges from two to four people, and one organization regularly uses two former developers part-time. Union County operates with two staff positions, a director and administrative assistant. Lancaster and Charleston Counties have three full-time positions: a director that focuses on recruitment; an assistant director that focuses on existing business; and an administrative assistant. This staffing structure is similar to CCED. York and Aiken Counties operate with four full-time staff. All organizations carry out business recruitment, marketing, and existing business retention and expansion. Only Union County's program activities include tourism. None of the organizations have the primary responsibility for small business and entrepreneurship development.

Board Leadership

Typically, public economic development agencies have boards consisting of members appointed by the county council. Public-private partnerships, such as in Lancaster County, have a mix of public and private members on the board. Aiken County's board includes elected directors from a private sector membership, and the county and city make appointments of non-elected citizens to serve on the board. CCED is overseen by the county council, and the CDA board is elected from its private membership group.

Successes and Challenges

Sanford Holshouser asked communities about their best practices, unique assets, obstacles and challenges. The communities cited some similarities in that most have workforce development challenges. They also see a need for additional product development. There are, however, some points that stand out among the communities.

Best Practices and Assets:

- The smaller counties see an advantage in partnership with regional and state agencies. These partnerships allow resources to be leveraged to maximize their limited budgets.
- Communities with advanced BRE programs cite this as a key advantage to their success.
- One county reported its best practice is the relationship developed between county government and the economic development organization and staff. This relationship allows for quick decision making and approval of key investments.

Challenges:

- Product development remains difficult in communities with limited resources and in communities where land for industrial development is limited or cost-prohibitive.
- For fast growing communities like York, growth presents the greatest challenge. Meeting demand for infrastructure, transportation and schools is placing exceedingly more pressure on local government.
- More funding was cited as a need by most organizations. Specifically, funding for product development, marketing, and additional staff.

TARGET INDUSTRY ANALYSIS

Target Industry Analysis

The purpose of the target industry analysis is to review, verify and recommend industry target sectors for company relocation and expansion. This target industry analysis is intended to provide Chester County with a framework to focus its resources on those areas that will hold the most return on time and marketing dollars invested in expansion and attraction efforts. It does not mean that Chester County will not actively pursue companies outside of these sectors.

The key to recommending industry targets is to match feasibility (strengths and assets) with desirability. The team's recommendations are based on a tour of the community, community interviews, SWOT Analysis, and the team's collective experience. All of these elements were used to determine the feasibility of industry targets for Chester County. Equally important to the process is determining what is desired by the community. Some of what we heard through our interviews with business leaders and community stakeholders was the desire for more manufacturing-related companies, specifically plastics-related and automotive-related.

Based on our observations and experience, we recommend the following five industry targets:

- Automotive Manufacturing
- Fabricated Metals Products and Machinery Manufacturing
- Plastics and Rubber Manufacturing
- Pharmaceuticals and Medical Device Manufacturing
- Value-Added Food Products Manufacturing

Methodology

The project began with community interviews and a community tour in January 2008. The team met with key community stakeholders and business leaders through focus groups and one-on-one interviews-in person. The purpose of these meetings and interviews was to determine the companies, industries and economic development objectives desired by the community. The tour helped the team understand firsthand the assets and challenges of the area. This step also included an inventory of available buildings and sites in the county. These elements were necessary to compile the SWOT Analysis delivered elsewhere.

The next step in the process was to look at the economic base of Chester County and as compared to South Carolina and the U.S. We analyzed the employment base and employment trends for Chester County and compared it to South Carolina and the U.S.

The information and knowledge from Chester County was then combined with the research on active and growing industries to determine the target industries that represented the greatest opportunities for the areas. Our recommendations for target industries will be the industries that are most feasible and desirable based upon our analysis, research and input from the team.

Industry Overviews are included later in this report for each recommended target industry, including a brief industry description, an industry definition, current industry trends, and any specific emerging segments of emphasis within the industry.

Overall Industry Outlook

When recommending industries, it also important to consider future growth potential and risk of decline. Manufacturing, in general, should be of concern for all of the United States. Some manufacturing industries such as defense-related, food, medical equipment, and pharmaceuticals will need to stay within the borders. However the more a product becomes a commodity status, the more likely it will have to be made in the lowest cost location. These are the manufacturing industries that are in jeopardy.

Industries that are projected to grow include:

- Computer Systems Design and Software
- Healthcare Services
- Amusement and Recreation
- Educational Services
- Internet and Information Services

Chester County should be aware of the industries that are contracting or projected to contract in the future. These industries will be feeling cost and delivery pressures as they compete in an increasingly global market. With this information in hand, Chester County can support their local companies in these industries and minimize the losses to the company and community. Also, knowing which industries are projected to decline provides information on those industries that might be less likely to be stable in the long term when evaluating possible new companies to attract to the region. Chester County should take note of the following national industries projected to decline.

- Apparel and Textiles
- Tobacco
- Metal Ore Mining
- Miscellaneous Chemical Products
- Iron and Steel Mills
- Computer and Peripheral Equipment
- Pulp and Paper Mills
- Synthetic Rubber, Resins and Fibers

Recommended Industry Targets

The decision to focus on a select few target industry groups or functions does not preclude improvement and possibilities in other areas. Rather, the priority targets are, or have the potential to become, drivers that take capital from outside the region and initiate activity that produces income and value for Chester County and the surrounding region.

"Destiny is no matter of chance. It is a matter of choice."
--William Jennings Bryan

Setting target priorities is important to drive strategic action. Conscious choices can proactively shape the future of the region. However, the prioritization below does not suggest that these targets are the only sectors that add value to the regional economy. For example, pharmaceutical distribution may develop as a viable candidate as a result of targeting pharmaceutical manufacturers. Over time, other important, unforeseen target areas may emerge from the market.

Many of the industry targets are based on Chester's strengths, which will appeal to companies looking to expand to the region. Some of these strengths include:

- Geographic location. Chester County is within close proximity to Charlotte and Columbia and is located on the mid-Atlantic seaboard. This provides businesses access to several major markets as well as several major transportation corridors. The County also offers access to 3 different railroads, including Lancaster & Chester Railway (L&C), which connects to both CSX and Norfolk Southern. This is important not only because it provides businesses requiring rail a choice, but also because L& C has excellent rates and a reputation for aggressively negotiating rates with both CSX and Norfolk Southern.

- Available Workforce. One of the few positive results of recent manufacturing layoffs within the County is the availability of labor. In addition, the workforce was described as productive and loyal. This is extremely important for manufacturers in the U.S. since one of the best ways for businesses to compete in a global economy is to have a highly productive workforce.

- Available Land. Businesses looking for available land to expand into Chester County are in luck due to thousands of acres of zoned industrial land along SC 9 near the I-77 interchange.

- Mega Site. Chester County boasts one of the best mega-sites in the U.S. There are relatively few similar sites in the Southeast, let alone the U.S. that can accommodate a major project such as an automotive assembly plant.

- Education & Training. The Chester County campus of York Technical College is currently under construction. Once it opens, it will be able to provide businesses with specialized training programs. This will be very appealing for expanding businesses that are considering expansion to the County but require labor skills that are not already present.

- Infrastructure. Chester County is fortunate to offer an abundant water supply for businesses looking to expand into the County. Availability of water is very important to several industries, including food products and pharmaceuticals. Also, overall utility rates are reportedly low and reliable, which is important for all manufacturing businesses.

Automotive Manufacturing

Automotive Manufacturing is an excellent fit for the workforce within the County and Charlotte Region. According to site selectors, the mega-site along I-77 is arguably one of the best sites in the country for an automotive assembly plant. The new campus of York Technical College will be able to provide customized training programs to automotive-related businesses looking to recruit area workers that require additional skills. Chester County's proximity to Charlotte and I-77 is also attractive as expanding automotive suppliers can supply any of the 250 automotive companies within the Charlotte Region, including the Freightliner and BMW assembly plants. Although the U.S. continues to see a decline in manufacturing due to off shoring, there are still opportunities for manufacturing in the U.S., especially among businesses that have high-tech and automated processes. In fact, the strong work ethic of Chester County's workforce will be very attractive to businesses needing to achieve high productivity levels, thus making them even more competitive in a global economy.

Fabricated Metal Products and Machinery Manufacturing

Fabricated Metal Products and Machinery Manufacturing is also an excellent fit for the workforce currently within the County. There are plenty of industrial sites available within the County. In addition, the new campus of York Technical College is an important asset as it can train workers in the skills required for any new businesses locating in the County. Due to Chester County's proximity to the Charlotte region and I-77 and access to three railroads, expanding businesses will be able to supply businesses in the Charlotte Region as well as the entire mid-Atlantic Seaboard. Manufacturing businesses locating within Chester County will be able to take advantage of its attainment status, competitive business incentives, low cost, and reliable power. As with all manufacturing targets, the strong work ethic of Chester County's workforce will be very attractive to businesses needing to achieve high productivity levels, thus helping businesses compete.

Plastics and Rubber Manufacturing

As with Fabricated Metal Products and Machinery Manufacturing, businesses operating within the Plastics and Rubber Manufacturing industry will likely find Chester County an attractive place to do business. Assets that will be attractive to this industry include low cost and reliable electricity since these businesses require a tremendous amount of power. There are plenty of available sites for businesses that are looking to build a new facility, including several that have access to I-77 and rail. There is plenty of available labor within the County. With the new Chester County York Technical College Campus about to open, there are opportunities for businesses to be able to train the local workforce for skills that may be lacking.

Pharmaceuticals and Medical Devices

Pharmaceuticals and medical devices is a very attractive industry target. Companies usually bring high-quality, high-wage jobs, the growth potential is enormous and manufacturing can bring significant capital investment. As baby-boomers continue to age, the demand for pharmaceuticals and medical devices will continue to skyrocket.

Pharmaceutical manufacturing operations require a high amount of water in their processes. Chester County's abundant water supply will thus be very attractive to pharmaceutical manufacturers. Chester County's available industrial land with rail access may be very attractive to expanding pharmaceutical manufacturers. Chester County's location is also very appealing in that pharmaceutical manufacturers would be able to recruit workers from around the region while also having access to several markets along the Mid-Atlantic.

For many of the same reasons outlined elsewhere, medical device companies will find a location in Chester County to be quite advantageous. It's a good fit for the workforce currently in the Region. The strong work ethic of the local workforce sets the Region apart from many other regions in the U.S. and the new Chester County York Technical College is an attractive asset for employers needing to provide additional training.

Value-Added Food Manufacturing

Value-added food products are food products that increase in value due to the processing of raw ingredients. It's a diverse category that includes everything from microwave foods to snack foods to specialty foods, such as tortillas and frozen foods. The food products industry in general is a very attractive industry to recruit to a community as it is a stable industry and unlikely to move offshore. A value-added food products operation requires easy access to transportation assets such as interstates and rail. Value-added food products companies also require a large amount of water. Chester County is able to offer all of these.

Based on current and projected trends within the food industry, we recommend that Chester County focus on specialty food companies making ethnic food products for Asian, Mexican, and Italian foods. These foods include, but are not limited to, specialty spices, cheeses, marinades, tortillas, pastas, salsas, etc. Another strong area to consider is prepared and microwave meals. As most families now have two wage earners, there is less time to prepare meals than in the past. Prepared foods covers all categories, including preseasoned chicken and pork, single serving dairy products, frozen foods, grain products, refrigerated and frozen dough, and savory snacks.

ECONOMIC DEVELOPMENT STRATEGIES

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Chester County's economic development program has made remarkable advances over the last few years. The efforts of staff and public and private leadership can be seen in the number of available industrial sites, client response materials, a new BRE program, website redevelopment, and most importantly, a change in the perception of Chester County's economic development program. The consulting team heard comments like: Chester County has its act together; You can tell Chester County is working hard for economic development; and I have no reservation taking clients to Chester County. **The first recommendation from our consulting team is to keep doing what you are doing!**

Product Development

When touring Chester County, the consulting team was very impressed with the amount of acreage zoned for industrial and business use. There are currently 37 sites listed as available on the SC Department of Commerce website. The Highway 9 corridor has good access to I-77, infrastructure, mostly flat topography, and is close to the new York Tech campus, along with many other advantages. CCED has worked with landowners to gather information on the sites and can deliver a comprehensive presentation on the available properties. The consulting team recommends that Chester County:

- **Distinguish sites by developing business parks.**
- **Raise development standards in some parks through restrictive covenants.**
- **Gain firmer control over some land through public ownership or public-private partnerships.**
- **Certify sites.**
- **Create a stronger advantage through shell or virtual shell buildings.**
- **Continue focused promotion of the Carolinas I-77 Mega-site.**

Developing Business Parks - Currently, the majority of industrial land promoted to companies is greenfield, or unimproved. Most companies prefer a business park setting to a stand-alone site. The business park setting makes re-sell of a business property easier, helps maintain value because adjacent uses are business, and is a more secure environment. Chester County can create business parks in cooperation with private landowners by grouping sites, providing infrastructure and paved access, marketing the group of sites as a business park, and installing signage and an entrance road to show the sites as one group.

Raising Development Standards – The consulting team recommends that Chester County utilize development restrictions to create business parks that will attract a range of companies. Some parks should be more restricted, requiring masonry construction, wider setbacks, landscaping, limited outside storage, etc. Other business parks could allow metal buildings, more outside storage, noisy businesses, etc. It is recommended that CCED work with landowners to find covenants that meet the development needs of the owner and the County.

Controlling Property - Most, if not all, of the property in the Highway 9 industrial corridor is in private ownership. It is recommended that the County identify property for long-term control. This may be needed to create the types of business park settings and enact more development restrictions that can be done in partnership with private landowners.

Certified Sites - Several of Chester County's premier sites have had development research conducted. In the case of the Carolinas I-77 Mega-site, thorough research has been conducted to determine developability and costs. The next step is to certify the site through the Department of Commerce. Certified, or so called qualified sites in some states, are becoming well known by site location consultants and are being requested. Chester County can further distinguish its product by having the certified seal. Palmetto Economic Development Corporation has a grant program available to help communities certify sites.

Shell and Virtual Shell Buildings - About 80% of all expanding and relocating companies are searching for an existing building. Communities lacking an inventory of quality, modern industrial buildings are at a disadvantage. Currently, there are 10 buildings listed as available in Chester County on the SC Department of Commerce website.

Building	Sq. Ft.
Crenshaw Spec Building	32,400
Fuel Systems	65, 740
Eagle Family Foods	77,845
AF Industries (Republic 2)	227,328
Springs Industries - Frances Plant	228,784
Springs Industries - Elliott Plant	235,078
Springs Close Plant	236,210
F. Schumacher	526,573
Springs Katherine Plant	627,241
Raunch (Converse)	806,316

Springs Katherine Plant

Most of these buildings have an acceptable ceiling height, which is the typical downfall of many vacant industrial buildings. The one gap identified in the Chester building market is in buildings with less than 200,000 square feet. **It recommended that Chester County develop a speculative shell or virtual shell building as a way of addressing the gap in building sizes available.**

Shell buildings are an economic development tool designed to attract prospective companies to the community. Communities report significant increase in clients while a shell building is being

marketed. As background information, shell buildings are typically four walls, no floor, no finishing. The building is left as flexible as possible in order to attract a range of users. Shell buildings save companies time, usually a few months, in the development timeline.

The first step to building a shell building is finding the right site. Most spec building debacles have occurred when the wrong sized building was built in the wrong location to satisfy political or other local interests. An **independent site assessment process** should be undertaken to determine where the shell should be constructed.

Following site selection, **Chester County should begin discussion with private developers to determine the viability of a public-private partnership.** Communities have partnered with developers by providing land at no cost until the building sells, extending infrastructure, providing low financing, grading the site, and other incentives.

A virtual shell is the recommended fist step in constructing a shell building. This marketing tool can be developed while the shell construction program is being structured. A virtual building is just as it sounds, all of the planning, marketing, and graphics without construction. Firms will develop a virtual building with construction cost estimates, architect drawings, pre-permitting, lease scenarios, marketing materials, and a computer generated "virtual" walk-though of the building and site. All of the planning for a virtual building can be used when construction begins on the bricks-and-mortar spec building. Virtual buildings are used as a marketing advantage for prepared sites.

Carolinas I-77 Mega-site - The consulting team's product development notes would not be complete without mentioning the tremendous opportunity of the **Carolinas I-77 Mega-site**. It is the only mega-site in the Charlotte Region; the premier mega-site in South Carolina; and one of the top-rated mega-sites in the Southeast. Distinguishing factors include single ownership, two interstate exits, rail service choice, utilities, connected supplier sites, significant prepared acreage, and other factors. CCED has a strong partnership with L & C Railroad and Duke Energy and the team has been very proactive in marketing and promoting the site. To date, marketing materials, a website, and a recruiting strategy have been developed and are in various stages of implementation. The consulting team's recommendation is to keep up the good work!

Workforce Development

Chester County has available workers. People are eager for new employment opportunities following significant plant closings. Local leaders cite workforce availability as one of the key strengths to attract new companies. The fact that the workforce skill level is higher than in most textile communities is another strength. The skill level is higher because of technological advances implemented by textile and other local companies prior to being crushed by foreign competition. In some cases, these facts are overridden by misperceptions of low-skilled textile workers.

Sanford Holshouser believes in **guaranteed worker programs** as a means to overcome negative misperceptions of workforce skill level. There are different forms and names for guaranteed worker programs. The concept is that if a new or expanding company hires someone from Chester County that does not meet a basic skills standard, that person will be trained at the technical college at no cost to the employer. The training is focused to raise the skill level to a defined basic level. Most Chester County workers meet basic standards. The County's investment in training will be a significant boost to human capital, the most important investment in economic development.

Chesterfield County, through Northestern Technical College, markets the **REWARDS Program**. It is a nine-week training program offered at no cost to participants. The program includes instruction in basic employability, workplace etiquette, mathematics and critical reading skills, industry specific safety practices and communication. At the end of the course, the students are given a free WorkKeys assessment, which is used to match their skill set with employer needs. Students also tour a local plant and have a job fair with local industry participating. It is recommended that Chester County work with York Tech to ensure the REWARDS program will be offered at the new campus and explore how it can be the base for a guaranteed worker program.

Burke County, NC is developing a unique model, the **Burke County Education Endowment**, to raise workforce competitiveness. The community is building an endowment that will allow every Burke County high school graduate to attend two years at Western Piedmont Community College, located in Morganton, for free. Some high school graduates can pay community college tuition, and others receive scholarships. However, there are a large percentage of high school graduates that cannot afford community college tuition. The endowment will allow that group to attend the college for free if they maintain a specific grade point average. This program is intended to encourage more students to finish high school and raise the overall education level of the workforce. **It also has tremendous marketing potential to new and existing businesses.**

A valued added service from CCED Existing Business Retention and Expansion Program is coordinating the several workforce development programs available to existing businesses. Often companies find the maze of workforce development assistance overwhelming and stop seeking assistance. The local economic development office can help companies find a way through the maze for real benefit and economic impact.

Economic Development Organization and Funding

Chester County's economic development program is supported by county government and the private sector. County council has provided stable funding for the

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Chester County Economic Development

organization and shows confidence in the leadership and expertise of staff. Chester Development Association (CDA) provides supplemental funding to CCED and also expressed strong support for economic development staff citing their capabilities and professionalism.

Staff - CCED's staff size of three is in the mid-range of the comparable communities. With the recent addition of the Existing Business Coordinator, the consulting team believes the staff size is appropriate to carry out the current work plan and implement this strategic plan. A research coordinator with superior information technology skills could be very useful in researching data, developing and maintaining the CCED's data base, producing locally developed marketing materials, etc.

Program Components - CCED's core program activities include business recruitment, marketing, existing business retention and expansion, and product development. Below recommendations for small business development, tourism, workforce development, and other strategies are mentioned. We do not recommend that CCED become the primary leader in these areas; however, the organization should be a strong partner, and in some cases, initiator, of these other important economic development activities.

Budget - The 2007-08 appropriation for CCED is $223,396 (fiscal year 2008-09 budget is $227,183) which places it next to last within the group of counties reviewed for this study. However, when calculating budget per capita, Chester County leads the group. This is due to the small population size of the county. The same effect can be seen in the Union County figures.

County	Budget	Budget Per Capita	Staff
Charleston County	$1 million	2.89	3
York County	$450,000	2.21	4
Aiken County	$400,000	2.21	4 + 2 part-time
Lancaster County	$265,000	4.16	3
Chester County	$223,396	6.79	3
Union County	$144,000	4.94	2

In addition to County funding, CCED receives some funds each year from the Chester Development Association. These private funds are typically used in marketing and for special projects such as this study.

Even though funding may appear to be at a high level, CCED will need additional funding to implement this strategic plan. If Chester County wants CCED to continually improve and launch innovative programs, funding must reflect it. CCED should identify items from this plan to implement each year and request appropriate funding for implementation.

Overall Economic Development Funding - As mentioned above there are two key economic development funding goals for a community. First is the economic development program budget. Second, but just as important, is overall county investments in economic development. The one reason stated by local leadership as to why Chester County has not had more economic growth is "lack of funding."

Every recommendation in this report takes resources. A very few may take staff time, but the majority will take significant investments by Chester County. The consulting team does not want to see this report gather dust on a shelf because of lack of funding. We recommend the County develop a policy that will dedicate ongoing funds to economic development. An economic stimulus fund could be established, and over time, provide funding for site development, controlling property, infrastructure extensions to economic development areas or additional incentives.

One way to create the fund would be to link it to CCED activities. A dedicated percentage of new tax revenue or fees generated from each CCED project could be placed in the fund. For example, if a local company expanded with CCED assistance and the expansion brings $50,000 in new annual tax revenue, the County could place $5,000 each year in an economic stimulus fund in the name of that project. If a newly recruited company brought $200,000 in new fees to the County, 10% could be set aside in an economic development fund. By relating the economic stimulus fund to the performance of CCED, the fund grows as the organization is more successful.

Existing Business Retention and Expansion (BRE)

Chester County Economic Development recently expanded its economic development program to include existing business retention and expansion. As part of this strategic planning process, Chester County requested that Sanford Holshouser provide a comprehensive BRE program. The consulting team utilized existing business interviews conducted for the strategic plan, interviews and discussions with CCED staff, interviews with regional and state economic development partners, and best practices in BRE to develop the program. Below are **excerpts from the BRE Report which can be found in full as Appendix A**.

BRE is important to communities because research has shown that existing businesses represent 70% - 80% of new investment and job creation in a community. A strong BRE program returns investment to the community. BRE programs are less costly than recruitment programs, decision-makers are local and are partners in economic growth, and a strong BRE program supports business recruitment through peer-to-peer marketing. In return, the economic development organization receives better funding support from the local business community which sees BRE as a return on investment.

Most BRE programs focus on industry, large employers and manufacturers in general. Chester County has a solid industrial base; however, the BRE program should branch outside the large industry/manufacturing box and reach the “gazelles”, or smaller growth companies. Sanford Holshouser uses the broader term of business to include industry. The guidelines established in this program are meant to cover the range of industry sectors and business sizes. The BRE program designed for Chester County contains several elements including visiting local companies regularly, expanding the business appreciation program, bringing outside resources to local companies, and developing an early warning system for at-risk companies. Here is a bulleted summary of the program recommendations reported in detail in Appendix A.

- **Business Visitation and Surveying** - There are several purposes in a BRE visitation program. First, assessing the health of each company acts as an early warning system to alert CCED to plans for expansion, technology changes, downsizing, relocation or other major changes in the company. Second, information gathered during regular visits is compiled to identify local business and workforce trends. Third, regularly visiting with local businesses shows the company that the community is a partner in business and appreciates the company's contribution to the economy. Fourth, industry executives become interested in local economic development efforts and often become leaders in the CDA. Finally, building relationships with existing businesses is not only important to the success of the BRE program, it is important to the success of Chester County's recruitment program through local companies becoming ambassadors to their vendors, suppliers and associates.

  Action Steps:

  - Develop a **BRE Team** made up of existing business service providers
  - Develop a list of companies targeted for the BRE effort
  - Introduce the BRE Program
  - Establish a **goal of visiting 4 - 6 companies per week**.
  - Organize BRE Information
  - Develop a **follow up strategy**
  - Follow up with partners to make sure that items passed on to ally agencies receive timely follow up
  - Make retention and expansion visits to the corporate headquarters of local companies; **it pays dividends**

- **Confidentiality** - Just as in business recruitment, BRE programs access confidential company information. Existing businesses must initially be reassured and must trust that CCED will hold information gathered during visits and surveys in confidence, only sharing information with other service providers when required and with permission.

  Action Steps:

  - Develop a confidentiality policy for the BRE program.
  - Reporting limited information on the BRE program to the County, CDA and other groups
  - When engaging another service provider, gain clearance from the company

- **Business and Industry Appreciation** - Most BRE programs have a component that recognizes the contribution of business in the community. Appreciation and recognition events range from an annual golf tournament, as sponsored by the CDA, to week-long celebrations spotlighting businesses and publicly acknowledging their contributions to the economy and community.

  Action Steps:

  - Expand the Current Industry Day - several recommendations in the full report

- Publicize the good things that local companies do throughout the year

- **BRE Brochure** - CCED has marketing materials for business recruitment and is re-vamping its website for marketing. The newly developed BRE program will benefit from a marketing brochure of its own and prominent placement on the website. The brochure can be mailed in advance of calling for appointments, left behind following calls as a reminder of services, and distributed at local events to generate interest in the program. The brochure can be done in-house when getting started and then, enhanced with professional marketing services.

- **Business Resource Directory** - The CCED staff must become an expert on all of the assistance programs that are available to help retain and grow businesses and share that knowledge. When conducting a visit with a local business, there are many resources (service providers) to discuss: technical college training programs, university outreach, SBA financing, expansion assistance programs, environmental regulation support, Small Business and Technology Development Center, etc. Companies often find the volume of information overwhelming. A BRE resource directory can be a valuable service for local businesses.

- **Existing Businesses as Ambassadors and Recruiters** - Existing businesses are the best recruiters in a community. Peer-to-peer contact has proven to be the most effective means of marketing in economic development. Chester County already has some industry ambassadors and should continue to turn existing business leaders into an army of recruiters.

  Action Steps:

  - During existing business visits, ask for the names of customers and suppliers that could have an interest in expanding into Chester County
  - Ask companies to take CCED marketing materials to industry trade shows and share information packets with customers or suppliers that visit the County
  - CCED staff can work out of an existing company booth at trade shows
  - During site visits, ferret out those companies that would be good spokespersons for the County, and use them for prospective company interviews.

- **Cluster Networking** - Chester County has Human Resources and Plant Managers meetings sponsored by the chamber of commerce. Some industry managers interviewed did not know about the meetings. These are important forums to network business and industry leaders. As the BRE program progresses, CCED should consider networking meetings based on clusters.

- **Early Warning System** - One of the benefits of creating a BRE program is the development of an early warning system. As most counties have learned in recent years, plant closings can devastate a community.

  Action Steps:

  - Develop a profile of an at-risk firm.
  - Increase contacts with at-risk companies.
  - Identify the specific factors that are leading to the possibility of a downsizing or closure.

- Make contingency plans.

- **Incentives -** Competing communities offer your existing businesses promises of a good quality of life, a loyal workforce, easy transportation access, and lots and lots of incentives. Chester County has provided incentives through fee-in-lieu of property taxes and offered other local incentives for recruitment projects. Sanford Holshouser recommends that Chester County research existing business incentives offered by other states and localities to determine if any are applicable. Many states have changed incentive policies in recent years to favor existing business growth. Chester County could lead the way in SC to recognizing the investments by home grown companies.

- **Professional Development for BRE Staff** - Sanford Holshouser recommends that the Existing Business Coordinator review current materials published through professional associations and regularly participate in training courses focused on business retention and expansion. The field is changing quickly, and regular updates are important to remain abreast of new and innovative approaches.

Downtown Development

Downtowns are the heart and soul of a community. The appearance and level of business activity are often indicative of the overall economic health of a community. Chester County's municipalities have placed varying degrees of effort on downtown revitalization. The CDA has financially supported redevelopment planning. Downtown is important because more and more companies choose to expand where they want to live, and a large part of where people live depends upon the amenities and aesthetics of the community.

- Communities are turning to **incentives for downtown development**. The City of Gastonia, NC, has an incentive policy to encourage downtown redevelopment. The municipality offers an incentive grant based on the improved value of a redeveloped property located in the downtown development district.

- **Active storefront ordinances** are being enacted to prohibit downtown buildings being used as warehouse space or for businesses not actively engaged in bringing people downtown.

- The City of Morganton, NC, is exploring the concept of a **retail incubator** in downtown to strengthen the retail business base and lower downtown business turnover.

- Cities are examining **building codes** to better accommodate rehabilitation of older buildings. The City of Albemarle, NC, has been researching rehabilitation building codes to make renovations more feasible on older downtown properties.

- Local governments are playing a role in downtown development by **making commitments** to keep public facilities in downtown, renovating buildings for public offices, and making investments in landscaping, signage, and grants for façade renovation.

Local Leadership Development

The 2002 Chester County strategic plan update recommended several avenues for local leadership development. Those recommendations included a stronger role for the Chester Leadership Forum, education on economic development to local leaders, and more active citizen involvement. At this time, the Chester Leadership Forum is no longer in operation. **Chester County must commit resources to future leader development.** Most rural communities face leadership challenges. Aging population, turnover in local executives, loss of young professionals, and other demographic shifts lead to a shrinking of the future leadership pool. The consulting team places an emphasis on leadership because …

…the key to success is leadership.

Leadership Chester County - Over the last two decades, local leadership programs have been developed in most communities. The programs focus on generating a pool of informed citizens for leadership roles in civic clubs, public office, chamber of commerce, nonprofits, and other community agencies. The Palmetto Leadership Program is highly regarded; however, due to the strict attendance policy, many Chester County leaders are reluctant to participate. Chester County could revive the Chester Leadership Forum, birth a new leadership program, or work with Palmetto Leadership to make it more feasible to local leaders. Comprehensive leadership programs include information on education, public health and safety, economic development, local government, transportation, housing, utilities, history, and tourism. A good model is one in which the leadership group meets one day a month for 8 months with each day focused on a different aspect of the community. Upon completion of the program, the class takes on a community development project as a final requirement.

Chester County can also take the leadership model and apply it to high school students with a **Youth Leadership Chester County** initiative.

Local Government Academy - The leadership program above prepares citizens for general leadership roles. A local government academy is similar but prepares citizens specifically for leadership roles in local government. Future council, board, and committee members benefit from learning more about local government. One such program requires participants to spend one evening a week for four weeks. Police, fire, planning, finance, information technology, tax, recreation, and other government departments make presentations on their role in government.

Education on Economic Development - The SC Department of Commerce, Division of Community and Rural Planning & Development, has provided informational sessions on economic development to Chester County in the past. Since elected and staff leaders turn over regularly, it is recommended that this resource be used to continue to help local leaders better understand the economic development process.

Small Business Development

Over the last five years, communities have taken a renewed interest in small business and entrepreneur development. This renewed focus has been driven by laid off workers creating new businesses, a push for economic diversification, and the growth of venture capital. Communities also realize that in a locally owned business, all of the wealth generated remains in the community whereas the wealth generated at a division of a company is sent to wherever the company is headquartered. Sanford Holshouser recommends that CCED continue to be a supporter of small business and entrepreneurs. Below are some items the agency can do to support small business and some items CCED should discuss with partner agencies.

- **CCED and York Tech should continue to explore the feasibility of a small business incubator** co-located with the new campus under construction in Chester. York Tech has set aside land for a future incubator. Incubators have had mixed success over the past 20 years. We have seen highly successful incubators focused on mentoring, outreaching technology from a university or tech school, and graduating companies into the community. We have also seen failed incubators with broad missions, low graduation rates, and subsidized rent and services only. The key to success is approaching the incubator as an economic development tool, not a for profit venture. From Sanford Holshouser's incubator feasibility studies, we have found that researching local demand, forming partnerships with service providers, identifying an incubator manager with the expertise and passion, and maintaining a long-term vision for the incubator are all important.

  Sanford Holshouser's recommendation in the 2006 York County Strategic Economic Development Plan was the exploration of an incubator with Winthrop University's Small Business Development Center. Chester County should watch this development closely as a partnership may form. Some communities have turned to **virtual incubators** instead of the brick and mortar buildings with shared spaces, services and office equipment. Virtual incubators allow for mentoring and shared support services but lack the shared space, networking, and synergies created by housing entrepreneurs together. While the York Tech incubator is being explored, this may be an option for Chester.

- Continue **referrals** to small business support agencies, such as the Small Business Development Center at Winthrop University, York Tech, and others. Winthrop University is part of the SC Small Business Development Center network. The Center offers counseling, training, and information on starting a business.

- **Business plan competitions** are a good way to raise the awareness of entrepreneurship in a community. Communities often put together packages of services for competition winners.

Awards could include free consultations with local accountants and attorneys, website design, and other services needed by small businesses.

- Expand **financing programs** because one of the major obstacles in new business start-ups is financing. Become familiar with area micro-loan programs.

Improving Chester County's Gateway

The gateway into Chester County is the Highway 9 corridor from I-77. The miles from the interstate to the City of Chester do not make a lasting favorable impression on the traveler. In fact, site consultants and project managers referenced the lack of curb appeal of this stretch of road. The consulting team reviewed the recommendations in the Regenbogen Associates and Kubilins Transportation Group comprehensive long range master plan for the Chester County Highway 9 and I-77 Corridor. The group's recommendations of gateway elements including landscaping, reducing or eliminating overhead utilities, constructing sidewalks, and using uniform signage will all improve the appearance of Chester's gateway. Our recommendation to create business parks with signage and entrances off Highway 9 could be integrated into the master plan for the corridor.

It is recognized that the corridor study recommendations would take funding well beyond the resources of the County to implement. Over time and in sections, Chester County can implement the most needed elements of the corridor plan.

In addition to the Highway 9 entrance to Chester County, the County and municipalities should work to improve all gateways. Ordinances to clean up vacant industrial properties, junk cars, and dilapidated housing may not be popular with a few but could mean the world of difference to economic growth.

Residential Development and Housing

The Montrose Development and other large-scale planned housing developments will change the landscape of Chester County drastically. Developments such as these bring commercial and retail businesses, recreational venues, arts and cultural events, and amenities that make up a thriving, diverse residential community. Currently, Chester County is lacking in residential options. The consulting team heard from local leaders that executives, teachers, and young professionals are choosing to live in York County and commute into Chester County for work. The driving force is lack of housing options and lack of amenities.

Currently, planned developments do not address the need for multi-family housing. Apartments, condominiums, and townhouses are sought after by young, working professionals. In order to recruit teachers, and others, to live in the community, Chester County must encourage multi-family housing as part of the mix of uses in future planned developments.

As much as Montrose and other developments will bring much needed housing diversity and commercial and retail development, it will also change the growth curve. The current rate of population growth is flat. As the national economy rebounds, the trend will change dramatically. Chester County must be ahead of the shifting growth curve.

One area of need in future planning is wastewater. There are struggles now to meet the demands of planned residential communities. The squeeze will become tighter as more housing is developed. Communities such as Rock Hill and Fort Mill find themselves playing catch up with infrastructure, schools, and other government services.

Another concern on the horizon of residential development is becoming a bedroom community. Ring cities to Charlotte are seeing property taxes escalate to cover the cost of public services because residential development is choking business and industrial development.

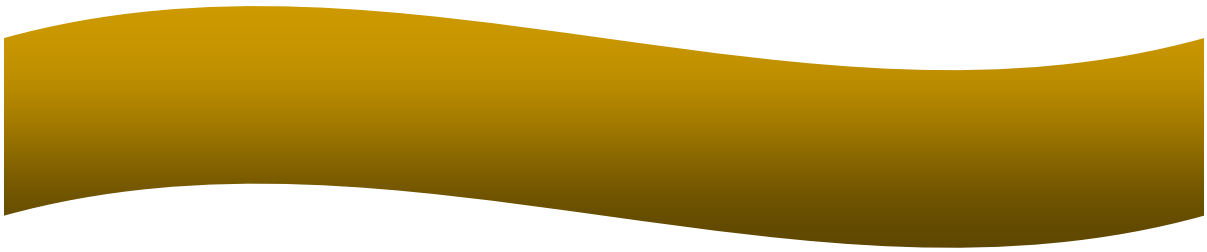
- Review the **land use planning changes neighbors such as Lancaster and York** have recently made to control growth.

- **Review the current Chester County land use plan** and see if it includes best practices in sustainable growth. Density, green space, and recreation areas are a few things that may need to be updated.

- Conduct **financial planning** for infrastructure extensions and school construction needs.

- **Learn from your neighbors**. Invite leaders from communities that have experienced fast-paced growth for presentations, workshops, and informational exchange sessions.

MARKETING PLAN



Marketing Plan and Budget Recommendations

The consulting team, led by Market Force, developed a marketing plan to take advantage of Chester County's assets and meet challenges. The marketing recommendations items below should be implemented over time and as budget allows. The recommendations are marketing initiatives the consulting team feels will benefit Chester County's internal and external marketing efforts. Market Force, or a marketing firm of CCED's choice, can assist Chester County with implementation.

Concurrent to this study, several of the marketing items recommended below have gotten underway, and some are nearing completion. The consulting team has reviewed the marketing projects underway and recommend CCED dedicate funding to complete the projects.

The purpose of this document is to help Chester County guide its economic development marketing efforts toward greater success in attracting new and expanding industry and gain greater support and enthusiasm from the Chester County Area. We believe the plan laid out here will achieve those goals. Budgets for various projects are included at the end of this plan.

A good marketing plan is targeted in its approach. This is important in the case of local economic development organizations, which often have small marketing budgets. Our marketing team associates, Sanford Holshouser and Applied Marketing Sciences have developed a SWOT Assessment, Target Industry Analysis, and economic development program recommendations for Chester County. This analysis, plus extensive input from County leadership, will be a guide for the County's marketing plan, which includes both external and internal marketing strategies. External strategies are those marketing initiatives aimed at recruiting business to the county and projecting the county's image outside of the locality. The internal strategies recommended here are targeted to existing business, local governments and other stakeholders. Internal strategies are those marketing initiatives aimed at retaining and growing local business, maintaining positive relations with funding groups and generally raising the awareness, and thereby support, of economic development advantages.

Understanding the Market and Competition

A profitable market consists of people who have unmet wants, so much so that they will be strongly attracted to your solution. We should ask the following questions:

- What industries are the best targets of our marketing outreach? This has been answered by our marketing team.

- What companies presently have branches or headquarters in the county that fit our target profiles? And how can we leverage them?

- Are surrounding counties aggressively courting the same targets we have selected? Are they being successful? What are the weaknesses in our competitions' offerings that we can capitalize on?

- What advantages does Chester County offer that enhances our market position?

Ongoing research is necessary to make sure that we are on top of issues that will affect our competitive position.

Understanding the Customer

Until we understand who our customers are, what they want and what motivates them to become customers of ours, we can't prepare an effective marketing plan.

To really understand our target market, we need to know the following:

- How do our potential customers normally decide on a new or expanded location?

- Who is the primary decision maker or influence in the decision process?

- What kind of habits do our customers have? For instance, where do they get their information (i.e. internet, consumer magazines, trade magazines, trade shows, consultants, industry peers, etc.)?

- What are our target customers' primary motivations for site selection?

We recommend the ED organization do regular interviews with existing companies, new companies and prospect companies to create an accurate profile of the Chester County corporate decision maker. This type of information is essential in deciding where to spend our marketing budget. We want to be as targeted and efficient as possible. Gathering this type information should be an ongoing quest.

Choosing Niches

As you are well aware, if we say that our target customer is "everybody," then nobody will be our customer. The marketplace is jam packed with competition. We must carve out niches that play to our strengths. To be successful in the new economy, communities must take a multi-pronged approach to economic development and not wait for one large industrial recruitment project to land. In developing the Chester County Marketing Program, Market Force reviewed research conducted by Sanford Holshouser and Applied Marketing. This research identifies the following industries as the most appropriate targets for recruitment:

- Automotive Manufacturing
- Fabricated Metals Products and Machinery Manufacturing
- Plastics and Rubber Manufacturing
- Pharmaceuticals and Medical Device Manufacturing
- Value-Added Food Products Manufacturing

We recommend that marketing efforts be directed primarily at the above industry categories. If you have staff time constraints, you may want to consider contracting with an outside company to do regular new company prospecting, qualification and follow-up via phone calling. It is often hard for busy staff to be proactive in recruiting.

Crafting the Marketing Messages

Based on the research performed in the county, the consulting team analyzed Chester County's assets and liabilities and how the county wants to position itself for the future. The information gathered will form the basis of future communications and help us position the County in its best light. In a nutshell, we found the following:

Assets:
Chester County has a number of strengths to tout in the area of economic development including: (1) Location/Transportation – proximity to Charlotte and airport, SC metro areas and I-77. (2) Mega-site – one of the best in the US. (3) Infrastructure – abundant water, affordable utility rates and local airport. (4) Economic Development Organization – proactive leadership in the community and outstanding ED staff. (5) And multiple other advantages, such as labor, quality of life, land availability, education and training (York Tech).

Liabilities:
Weaknesses that present hurdles for economic development are: lack of sewer capacity, slow growing tax base, poor educational attainment, untrained labor, blighted areas and buildings, lack of support of media, rail causing traffic delays, need for better healthcare, and need for better housing.

Desired image goals for the future:
Shell buildings, certified sites, good schools, a desired tourist destination, a good place for retirees, better downtown development, more service businesses, good residential developments, excellent workers trained through the new Chester York Tech.

Logo

Market Force recommended recreating the existing Chester ED logo so that it has a more professional look and is in a form that can easily be used by printers, CCED and anyone who desires to use the logo. Presently, it is very rough and not convertible to multiple applications. A re-designed logo will help strengthen your brand and give the organization a more sophisticated look. This project is now underway.

Lead Generation and Target Marketing

Most state and regional economic development organizations, and a growing number of county organizations, conduct lead generation programs to target marketing efforts. Specialized research firms, such as Applied Marketing Sciences, data mine industry reports, company financial information, and market trends to identify companies that are predicted to expand within two to three years. Economic development agencies purchase the qualified company contacts, or leads.

Chester County will be ready to launch a lead generation program when it can commit to a regular external marketing budget. Lead generation is a long-term commitment. The results will most likely not be companies locating in Chester County immediately; rather, the result will be a database of companies interested in expanding to South Carolina to which Chester can market over time.

Following the purchase of leads, Chester County should have targeted industry mailers, a contact strategy, and a follow up system in place.

The most effective method of marketing is from one person to another. The goal is to ensure that communicating the benefits of Chester County travels in as direct a route as possible to identified key relocation influencers, both on the consultant side and on the corporate side. We want these audiences to remember the message, be motivated to explore the advantages of locating and expanding in the County, and to pass the word along to their business associates in support companies. The key to success with marketing directly to companies is starting with good leads, presenting a compelling case, being consistent in the marketing message and following up.

Target industry handouts: As a first step, an industry-specific marketing handout should be developed for each targeted industry. A list of Chester County advantages for each target industry needs to be developed for use in recruitment calls, mailings and visits. These target industry sheets would be produced professionally, such as those developed by Market Force. Size would be 8.5" x 11" front and back.

Because of Chester's extensive rail access (the most in the CRP region), we recommend developing a rail-oriented handout to include with your other marketing materials showing all the industrial sites available with rail, including the Mega-site. We can modify the Mega-site supplier site map to include just Chester sites. Encourage CRP to send out this "Rail" info to their prospects.

Target industry mailings: We recommend doing a series of mailings to prospects in each of your target areas. In addition to the above handouts, we recommend sending letters, emails, and/or postcards over time to reinforce your message.

Target industry follow-up: As we mentioned in the overview, the weakest link in economic development marketing programs is follow-up. Everyone gets busy with the work at hand and finds it difficult to work the prospect list. And, as we all know in this business, sometimes years go by before a prospect makes a decision to move.

Local outreach team: Assemble a local team of business and civic leaders to visit companies that, through the direct marketing campaign, have shown an interest in expanding or relocating to the Chester County area. The same team would be hosts when prospects visit Chester County. Remember: *Meeting with corporate executives represents your number one most effective marketing tool.* The entire community needs to be educated on how to welcome visitors and what messages to impart. We recommend training for the economic development team. Training includes interacting with prospects, making marketing presentations, confidentiality, and professionalism. Many executives state that the deciding factor in their relocation decision was the local welcome and expressed desire to have them be a part of the community.

Marketing to Consultants

Like marketing to industrial target sectors, marketing to site selection consultants is critical. They are instrumental in the location of many companies. Mailing lists of these key players are available. Certain major consulting firms should be periodically met with in person if possible. When interviewing consultants, our research has determined that these individuals appreciate being kept informed of new buildings, sites and other opportunities available in a community – on a regular basis. They do NOT want volumes of information. The communication must be timely and meaningful. They want the information in brief, informative form. Postcards, letters and emails are all appropriate. Examples are an email making a consultant aware of a newly available building, newly laid off workers with specialized skills or a new certified site.

Development of General Marketing Materials

The development of these materials will be prioritized according to your needs and budget requirements. These materials may include advertisements, brochures, direct mail, folders and templates for customizing data in-house, newsletters, etc. We will work with you to develop reasonable budgets.

Covers/Folders: Market Force recommends designing coordinating proposal covers and pocket folders that give the county a professional, progressive look. CCED has this item underway.

Data Template: We also recommend designing a digital template for in-house use, for profiles, demographic information, site plans, etc. The template, coordinated with above covers and pocket folders, is also a current project.

Comprehensive Economic Development Brochure: A marketing-focused brochure will promote the advantages of doing business in Chester County. This brochure would be designed to appeal to prospects/executives, not consultants. The recommended brochure would be 16 pages including a cover and an overview of the county, location and proximity to Charlotte, transportation, labor availability, worker training, quality of life, etc. The marketing agency working on new materials is designing such a brochure.

Chester Information Handout: It was proposed that an 8.5” x 11” front and back highlight

handout be produced. The project is currently underway. It will be suitable for fulfillment packages, handouts at trade shows and general information purposes. This would be similar to the target industry handouts but suitable to give to any prospect.

Industrial Training Student Recruitment Brochure & Program: Based on our research in Chester, important concerns are (1) keeping young people employed in the county, (2) reducing the high unemployment rate of existing workers and (3) providing industries located in Chester County with the trained workers they need. To further these ends, if York Tech does not have an aggressive student recruitment program, developing a brochure to assist the county in increasing the numbers of students in training and re-training programs would be important.

Economic Development Newsletter: Market Force can design an email template that allows ED news to be sent easily and inexpensively to any size database. The newsletter will contain updated information on the county, company locations/expansions, new training programs, sites, and other information important in company relocation/expansion. The newsletter should be distributed quarterly. The ED office can create its own artwork for each issue, or Market Force can write and design the newsletter for you.

Original Photography: We recommend having a photographer spend two days in the County taking photos for use in collateral materials, presentations and on the website. Subject matter should consist of quality of life, inside and outside of important local industries, executive housing, recreation, education and training, etc. We understand a local photographer has been contracted to conduct this work.

Promotional Items: The County needs attractive and memorable giveaways for various uses. Market Force can make recommendations for items that can enhance your image. CCED already has a few promotional items in process.

Industrial Sites and Buildings Marketing: At the present time, we believe that the PPEDA materials for the Mega-site and Supplier Sites, in conjunction with your own flyers on each building and site, are adequate for your needs.

PowerPoint Presentation: The County may wish to have a promotional PowerPoint presentation for use with various audiences. Presentations can educate members of the local economic development outreach team, and can be shown to civic groups, governmental groups and schools to help garner local understanding and support. This can go a long way to ensuring that citizens do not make negative comments about the county to visiting prospects. Most citizens are not aware of the complexities and length of time it takes to do industrial recruitment. Many students and adults can also benefit from learning about available vocational training opportunities that go hand-in-hand with attracting new industry. You may want to form a speaker's bureau from local volunteers to help get the message out. Market Force can guide and/or develop such a presentation.

Phone Message: Market Force has created on-hold messages for other communities that help promote the county when callers are placed on hold.

Public Relations Strategies

Chester County leaders have expressed a need to have a strong public relations program. Good PR will get the attention of prospects and educate the local population on what "Smart Growth" means and how economic development can lower taxes, thus increasing support. It can help garner support for future development projects when opposition arises.

Press Releases and Articles: Public Relations is one of the most underutilized – and most effective – forms of marketing. It is also relatively inexpensive when compared to traditional advertising. Any prospective new company will read the local newspapers, watch the local news and talk to existing businesses before making a location decision. In addition to letting the outside world know your advantages, it is important to remember that frequent local publicity (internal marketing) is critical to gaining local support. Citizens must appreciate that the ED organization is earning its keep. Stories on the successes of local business or ads congratulating them on growth help with business retention. Likewise, when the local press sees regular good news, they are more likely to create their own positive stories and call the ED staff for comments on a variety of issues. Don't forget that when staffs are busy, it is all too easy to put P.R. on the back burner. P.R. needs to be incorporated into the regular mix of work. Public relations includes the following tactics:

- Press releases distributed to local, regional and national publications and media. The consulting team recommends sending out a press release (one typed page or less) at least every 6 weeks to local, regional and state media. This content would include any economic development-related information that helps advance the image of Chester County. Topics could include relocation and expansion announcements, downtown development news, tourism news, new CCED employees, new city initiatives relating to helping local business, etc. Some may be for local education and consumption only. Market Force can help develop a topic list. These releases should be written to have news value, not as an advertisement. A press release database should be developed. Market Force can help with this on an as-needed basis. Distribution cost depends on whether we utilize Newswire or custom email database.

- In addition to traditional media, other ways to get local messages out are bill inserts, cable TV, and employee paycheck stuffers.

- The county may benefit from the development of a fact sheet in support of economic development to post on various websites and handout at local events.

- If opposition becomes strong, setting up a special website (such as "Jobs for Chester") can promote the advantages of supporting economic development to the everyday citizen.

Internal Marketing and Communication: Internal marketing and communication is often overlooked because the emphasis in economic development is on recruitment, which is supported by external marketing. We argue that internal marketing is more important than external marketing because 80% of all new investment comes from existing businesses who receive the internal message.

- Make **quarterly presentations to the County Council** on economic development activities and progress on implementation of this strategic plan. Make **annual presentations to municipal boards** on economic development activities and progress on implementation of this strategic plan.

- Regularly **meet with local media** to build a strong relationship and set communication/press release protocols. This builds a foundation for getting out the good word and dealing with negative news.

- Publish an **annual economic development report**. The report can be distributed locally, online, and to allies and state agencies.

Ally, Partnership and In-State Marketing:

Leveraging The Charlotte Regional Partnership (CRP): CRP schedules various mission trips and trade shows throughout the year. A representative of Chester County benefits from participating in these events. With the new Existing Business Coordinator on staff, this will free some of the Director's time to participate in regional marketing initiatives. The trips are supported by CRP and offer an opportunity to leverage Chester County's dollars. Additional site selection calls or visits to industry suspects and prospects should be scheduled to piggy-back on the CRP planned event. A high level of collaboration is needed.

Leveraging The SC Department of Commerce: Similar to strategies leveraging CRP, Chester County should leverage activities of the SC Department of Commerce. The County should analyze how it can capitalize on every marketing initiative sponsored by Commerce.

- Participate in state-sponsored trade shows.

- Make additional company calls before/after state trade shows.

- Review invitee lists for Commerce events to ensure Chester prospects are invited, and schedule meetings or events with those prospects.

- Target state-sponsored international missions that are aligned with Chester targets.

Leverage Allies - South Carolina utilities are very generous in their support of economic development. Duke Energy has supported many economic development initiatives associated with the Mega-site. Palmetto EDC supported this planning initiative and offers many other support programs. It is recommended that the CCED meet regularly with its ally agencies to keep them updated on the County's product and economic development successes.

Existing Businesses as Recruiters - Utilizing existing businesses in external marketing is mentioned in the BRE report in Appendix B and summarized under BRE in the recommendations section. Here are a few notes for the marketing plan.

- Ask the company if it would be willing to take CCED marketing materials to industry trade shows and share information packets with customers or suppliers that visit the County.

- If the company participates in a trade show in one of Chester County's target industry sectors, ask if CCED staff can work out of the company booth. This will reduce CCED's cost to participate in the trade show, create more recruitment opportunities, and show the partnership between CCED and business.

- During site visits, ferret out those companies that would be good spokespersons for the County. Almost always during a recruitment project, the company being recruited wants to interview local companies about the workforce and business climate. If CCED has identified those local company executives who are positive spokespersons, it can confidently use them for prospective company interviews and testimonials for marketing materials.

Development of Website

CCED is already creating a new website, which will strengthen your image and efforts at communicating Chester County's advantages. Below are some things we like to see in an economic development website.

- In general, we like a bar across the top or side with pop-up menus for major information headings, such as buildings and sites, data, community information, cost of doing business, interactive maps, etc.

- Site and building information should be only a click or two away. We like printable site data sheets (or "email a pdf site sheet to me" button), location map featuring view of sites and buildings, and a virtual building tour on line.

- Existing business testimonials are a key sales feature: remember the most effective marketing tool is peer-to-peer contact.

- Links to the Charlotte Regional Partnership, Piedmont Palmetto regional group, SC DOC, and other allies are important.

- Data and information should be kept updated. Data layout should be easy to navigate with the user being able to select specific data points. We also like the option of having a data report emailed to the user.

Media Advertising

CCED may or may not wish to run advertisements in the media. In special instances, it may be economically feasible. Market Force can do media research and ad design if it is within your

budget and goals. This is the most expensive form of marketing, and you may want to rely on CRP advertising efforts, which will benefit the County.

Potential Marketing Projects and Pricing for Chester County
Provided by Market Force

The marketing project price estimates below are for Chester County's budgeting purposes. Often, economic development organizations receive recommendations to launch new marketing initiatives without any budget figures associated with the recommendations. Here, the consulting team has provided CCED with general information that will guide its marketing budget.

Logo Re-Design

Design, one revision, mechanical art based on present logo	$1,900
Pricing includes design and layout of new stationery materials in printer-ready format. Printing not included.	

Target Marketing

Target Industry Handouts:	
Design, copywriting, layout, one revision for first handout	$4,425
Since format and main information would be established, subsequent designs	$2,500
Size would be 8.5" x 11" front and back.	
Printing 1,000 in full color	$1,500
Target Industry Mailings:	
Future letters, emails, and/or postcards over time to reinforce your message	Cost TBD

Marketing to Consultants

Postcards, letters and emails are all appropriate	Cost TBD

Development of General Marketing Materials

Covers/Folders:	
Coordinating proposal covers and pocket folders	
Design, two revisions, mechanical art	$2,000
Printing 1,000 folders in full color	$1,950
Printing 1,000 sets of covers in full color	$1,750
Data Template:	
Design digital template for in-house use for data	$750

Comprehensive Economic Development Brochure:
Design, copywriting, layout, three revisions, mechanical art for print

$20,000
16 pages including cover, glossy, full color with many photos
Printing 3,000 $6,800

Chester Information Handout:
Design, copywriting, layout, one revision for handout $4,425
If modeled on Target Industry Handout that has already been created $2,500
8.5" x 11" front and back with general data on County
Printing 1,000 in full color $1,500

Industrial Training Student Recruitment Brochure & Program:
If needed Cost TBD

Business Retention Brochure:
Design, copywriting, layout, one revision $2,500
8.5" x 11" folded to fit in #10 envelope
Printing 1,000 in full color $1,500

Economic Development Newsletter:
Initial format and design, two revisions $2,250
We will provide template of design for in-house production by ED personnel
Or Market Force can write and layout each newsletter for you Cost TBD

Original Photography:
Planning and two days location photography in the County $4,500

Promotional Items:
Market Force can make recommendations and order items Cost TBD

Phone Message:
Market Force can write and produce an on-hold message to help promote
the county when callers are placed on hold. Multiple messages rotate $2,700

Note**:** Photography is not included in design pricing on above projects.

Public Relations

Press Releases and Articles:

Writing 350 – 500 word press releases $500

Writing full article with research and phone interviews
750 – 1500 words $1,000 – $2,500

Distribution cost depends on whether we utilize Newswire or custom email database.

PowerPoint Presentation:
Develop PowerPoint presentation $3,970 – $5,970

Price can vary depending on length.

Media Advertising

Design and placement of media	Cost TBD

Above pricing is an estimate only and not a firm bid. Prices are based on production of similar projects produced by Market Force. Shipping and travel expenses are additional and billed at net cost.

IMPLEMENTATION NOTES

Implementation Notes

Long-term consistency is the key to successful economic development strategies. Often an organization will launch a program initiative for one year, declare it a failure, and give up on what could have been a changed the course of economic growth. The Chester County Strategic Economic Development Plan is designed to be implemented over a **three to five year period**. This time period will provide the consistency needed to determine the effect of program changes. Many of the goals and action steps will take longer to accomplish, especially in the area of product development. Short term successes will be found in the recommended policy changes.

In a planning session of the Chester County leadership team, the top four priority recommendations were identified. The consulting team acknowledges that **each goal is important.** Just because one goal is not rated a top priority, it does not mean it should be pushed to the side. All goals are intertwined and interdependent. For example, developing certified sites is directly related to business recruitment. It is often hard to prioritize a list where each item depends upon other items in the list; however, economic development leaders must be given some direction on where to start and how to focus time and resources.

The leadership team's top prioritized goals are:

- Product Development
- Workforce Development
- Funding for Economic Development
- Existing Business Retention and Expansion Program

The **consulting team agrees that the top implementation item should be product development**. Without distinguishing Chester County's sites, certifying them ready for development, and ensuring long-term control the business recruitment efforts will be at a disadvantage. The product development recommendations in this report will require more resources money. This led to the priority placement of **funding for economic development**. Creating a policy whereby regular investments are made for economic development will support the top priority of product development. Product development is by far the most costly area of economic development and by far the most critical. The **workforce development** priority recognizes the need for continual improvement in skills, educational attainment, and specialized training. The recommendations in this report of a guaranteed worker program or education endowment may seem out of reach; however, just keeping up with the regional standard will not create the advantage Chester is looking for. Rather, leapfrogging the regional standard to be the leader will create an advantage. The newly created **business retention and expansion program** is the other top priority item. Local leaders are keenly interested in seeing this program expand to its fullest potential.

Staying on Track

CCED should develop an annual work each year based on the goals and action steps laid out here. Working on a few of the items each year, over the course of three to five years, will lead to

goals accomplished and action steps implemented. The first year's work plan is outlined above with the four priority items selected by the leadership team.

It has been Sanford Holshouser's experience that annual planning meetings are opportune times to review the strategic plan, determine which goals will be worked on in that year, and to chart precise action steps to meet the goal. Sanford Holshouser has assisted communities with the implementation process through an annual review that includes reviewing progress and setting new goals for the next year. Whatever process CCED uses, measuring success, tracking progress toward accomplishing the overall plan, and regularly tackling new action steps is important.

METHODOLOGY

Methodology

The Sanford Holshouser Business Development Group developed the methodology for the firm's comprehensive strategic planning process using firsthand experience, best practices in strategic planning, and a focus on implementation. The methodology gathers input from local opinion leaders as well as outside economic development allies. Economic and demographic data are used to review trends and projections. Recommendations are developed and reviewed by all of Sanford Holshouser's Managing Partners and discussed in detail with the local leadership team prior to plan finalization. Applied Marketing Sciences uses data mining of industry information, industry sector trend analysis, site location factors, and other research techniques to determine the recommended targets for a community. Market Force utilizes market research, focus groups, and its experience crafting external messages for communities in its marketing plan formation. The combination of local, ally, research, best practices, and consulting expertise create a well-rounded, comprehensive plan for Chester County.

SWOT Assessment

The consulting team used three approaches to gain local leadership input into the Chester County Economic Development Plan. Input from these groups was important to the consulting team in its assessment of the strengths, weaknesses, opportunities and threats for economic growth.

1. Local Leadership Team: A small, core group of staff and elected leaders directly concerned with economic development has helped guide the project and review Sanford Holshouser's draft report. The Leadership team has shared information on Chester County's economic development program, infrastructure, labor force, transportation connections, public works services, etc. as well as quality of life, education, small business development, and diversity of community involvement.

2. Interview Group: Sanford Holshouser and Applied Marketing conducted 15 one-on-one discussions with governmental, civic, educational and industry/business leaders.

3. Focus Groups: Sanford Holshouser and Market Force conducted two focus groups in Chester County as part of this project. Total participation in the focus groups was about 30 people from various occupational or interest fields, such as large employers, real estate, service providers, local government officials, small businesses, and other interested citizens, which the Leadership team believed should be represented.

In addition to gaining input from local leaders, Sanford Holshouser interviewed "outsiders" as well. Interviews were conducted with consultants and economic development allies, such as the Charlotte Regional Partnership and South Carolina Department of Commerce. The total number of "outsiders" interviewed was six.

Throughout the entire planning process, Sanford Holshouser reached almost 70 people for input into the Chester County planning process.

Economic Development Organization Review

Chester County requested that the study include a component to benchmark the County against other communities in South Carolina. Chester County staff and the consulting team selected counties in close proximity as well as counties with which Chester most often competes. Sanford Holshouser contracted with ESRI to provide benchmarking data on Chester, Lancaster, Union, York, Aiken, and Charleston Counties. ESRI uses national data sources like the US Census and makes projections. Organizational information was obtained through interviews with the economic development director.

Economic and Demographic Profile

Sanford Holshouser used the latest available public data and ESRI reports to conduct the analysis. All sources are cited in this report. It is not accurate to compare data from two different sources (example: US Census Bureau and South Carolina Office of Research and Statistics) as they may have been gathered at different points during the same year and/or use different data gathering methods.

Recommendations

There are occasional points of deviation between the conclusions drawn by participants and the consulting team's own conclusions based on research, experience and familiarity with nationwide economic development best practices. In each case, the consulting firms take full responsibility for the findings, conclusions, and recommendations made in this report.

APPENDIX A

Chester County, South Carolina

Chester County Economic Development Strategic Plan

Existing Business
Retention and Expansion Program

Sponsored by

CHESTER COUNTY,
CHESTER DEVELOPMENT ASSOCIATION,
and
THE SOUTH CAROLINA POWER TEAM

February 2008

Table of Contents

Summary

Chester County engaged The Sanford Holshouser Business Development Group (Sanford Holshouser) to develop a strategic economic development plan. The project is jointly sponsored by The South Carolina Power Team and Chester Development Association in partnership with Chester County. The strategic planning process includes a Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis, Economic and Demographic Profile, Target Industry Analysis, Marketing Plan, and Economic Development Strategy Recommendations. The Existing Business Retention and Expansion Program (BRE) is an interim report of the Chester County Strategic Economic Development Plan.

Chester County Economic Development (CCED) has recently expanded its economic development program to include existing business retention and expansion. The strategic planning process offered an ideal opportunity to focus on developing a detailed BRE program. Sanford Holshouser utilized existing business interviews conducted for the strategic plan, interviews and discussions with CCED staff, interviews with regional and state economic development partners, and best practices in BRE to develop a program for Chester County.

BRE is important to communities because research has shown that existing businesses represent 70% - 80% of new investment and job creation in a community. A strong BRE program returns investment to the community. BRE programs are less costly than recruitment programs; decision-makers are local and are partners in economic growth; and a strong BRE program supports business recruitment through peer-to-peer marketing. In return, the economic development organization receives better funding support from the local business community, which sees BRE as a return on investment. Business retention and expansion are the foundations of a comprehensive economic development program upon which other strategies are built.

Most BRE programs focus on industry, large employers and manufacturers in general. Chester County has a solid industrial base; however, the BRE program should branch outside the large industry/manufacturing box and reach the “gazelles” smaller growth companies. Sanford Holshouser uses the broader term of business to include industry. The guidelines established here are meant to cover the range of industry sectors and business sizes. The BRE program designed for Chester County contains several elements including visiting local companies regularly, expanding the business appreciation program, bringing outside resources to local companies, and developing an early warning system for at-risk companies.

Starting a new BRE program can seem overwhelming, especially when economic development agencies are already overextended. The CCED has a small staff that also is responsible for an active business recruitment program and product development. Sanford Holshouser created a 90-Day Action Plan to focus BRE efforts for early results. Other BRE program components can be implemented over time. With a strong BRE program, Chester County will bolster economic growth while forming long-term partnerships with business and industry.

Chester County
Existing Business Retention and Expansion Program

In developing guidelines for the Chester County BRE program, Sanford Holshouser used information gathered from local companies interviewed in the strategic planning process, a best practices review, an interview with CCED staff, and the consulting team's own experiences in creating and implementing existing business programs. As stated in the summary, these guidelines are meant to apply to the variety of business types that make up the Chester County economic base. While some recommendations might be more applicable to large companies or manufacturers, most can be used to retain and expand the diverse business base of Chester County.

The action steps recommended for the BRE program are designed to be implemented over the course of one year. The visitation program is a priority, and the foundation of the BRE program and can begin immediately. Other action steps, such as a resource directory, can be developed over the first few months of implementation. A 90-Day Action Plan for the CCED BRE Program is presented later in this report.

Business Visitation and Surveying

There are several purposes in a BRE visitation program. First, assessing the health of each company acts as an early warning system to alert CCED to plans for expansion, technology changes, downsizing, relocation or other major changes in the company. Second, information gathered during regular visits is compiled to identify local business and workforce trends. Third, regularly visiting with local businesses shows the company that the community is a partner in business and appreciates the company's contribution to the economy. Fourth, the BRE program involves local company executives who can use their expertise and contacts to strengthen the economic development program overall. Finally, building relationships with existing businesses is not only important to the success of the BRE program, it is important to the success of Chester County's recruitment program. These meetings help develop relationships with management who may be called upon to be the recruiters/ambassadors for the County. There is no substitute for meeting face-to-face and openly discussing how the community and business can work in partnership for mutual success.

During BRE visits a survey instrument is used to gather baseline data in the beginning and to identify business trends later on. Existing business surveys can be conducted in a variety of ways. A staff person can regularly visit with local businesses to conduct the survey. CCED can enlist volunteers to visit local businesses or a survey can be mailed to gather information from a mass of businesses at a specific point in time.

Volunteers can be helpful in conducting a one-time shot of gathering information from many businesses, but volunteers do not provide long-term consistency, which is critical in building relationships. Moreover, volunteers must be trained in order to conduct site visits. In a volunteer-driven effort, all follow-up is turned over to the economic development agency,

potentially swamping staff with immediate response needs. Because of the disadvantages of a volunteer-drive effort, Sanford Holshouser recommends that CCED utilize trained volunteers when appropriate but that staff lead the visitation program.

Mail surveys typically have a very low response rate. Given Chester County's business base, a mail survey is unlikely to gather useful data and mail surveys do not provide for the personal interaction necessary to build relationships.

It has been Sanford Holshouser's experience that, in most communities, especially rural communities like Chester County, the most effective means of gathering survey information is through personal visits by BRE staff. This was underscored during local meetings with company officials where it was clear a local, personal contact is important.

Communities set the guidelines for visitation and surveying based on the size of the existing business base and the resources, both human and fiscal, available for the BRE program. Based on Sanford Holshouser's knowledge of the Chester County business base and CCED resources devoted to BRE, we recommend the following action steps for the visitation program.

Action Steps:

- **Develop a BRE Team -** Meet with and establish a relationship with existing business service providers. Supporting agencies usually include local governments, state economic development representatives, employment agencies, training directors from technical colleges, etc. During these introductory meetings, review the confidentiality policy and goals of the BRE program. Discuss how CCED will involve BRE team members in site visits, and make referrals to the agency based on the needs of existing business. It is recommended that team members participate in visits when the company has a known issue related to the agency's services and to show community support.

  CCED may want to sponsor a luncheon and invite all team members to share information on their existing business services. When meeting with an existing business or a prospective new company, it is important for the team to look like and act like a team.

- **BRE Database** - Develop a list of companies targeted for the BRE effort. It is recommended that all manufacturers (of any size) and other companies employing more than 25 people (no matter which business sector) be targeted for BRE services. In addition, gazelles, smaller companies with growth potential, should be visited. See the list below for guidelines on establishing the BRE database. The database of companies should include the company name, contact information and a primary and secondary contact for the BRE program. It is important to establish contact with the highest decision maker possible.

  When developing the database, review:
  - Manufacturers
  - Large employers

- Small businesses with growth potential
- Entrepreneurs getting businesses off the ground
- At-risk companies
- Businesses in Chester County's target clusters

- **Prioritize Visits** - Prioritize the target company list so that companies with the anticipated greatest need are visited first. The priority companies should include those that are expected to either expand or downsize or that have a pressing barrier to maintaining or growing operations. The top 10 largest employers should also be a top priority.

- **Introduce the BRE Program** - Send a letter from the CCED director, CDA chair, or County Supervisor to each company in the BRE database. The letter should introduce and describe the BRE program and ask for their support and participation. A sample letter is in Appendix A.

  In addition to the direct letter, distribute a press release to area local papers announcing the BRE Program.

- **Visitation Goals** - Sanford Holshouser recommends establishing a goal of visiting 4 - 6 companies per week. The less than average recommendation for number of visits is in recognition of the other duties performed by BRE staff. Such a schedule will allow for manufacturers (above 50 employees) to be visited twice annually and small manufacturers and service companies at least once annually.

  - Visit each large employer (employing more than 50 people) twice each year.
  - Visit all other manufacturers annually.
  - Visit large service employers annually.
  - Visit smaller service companies that exhibit growth potential.

- **Post Visit Follow Up** - Send a follow up note/email after visits thanking the company for its participation, and list actions to be taken on matters raised during the site visit, as well as a response timeline.

- **Organize BRE Information** - There are computer programs that track existing business visits and the information gathered therein. Some communities use ACT!, a contacts database used in sales fields, to organize the BRE program. The Charlotte Regional Partnership has made the ExecutivePulse (E-Pulse) System available to its communities. Sanford Holshouser recommends CCED utilize the E-Pulse System and determine if ACT!, Excel, or simple file folders are needed for additional information tracking. The important question to ask when determining how to organize information is: Can CCED staff readily access information on each company in the BRE database and determine the following.

  - What has been the schedule of visits to this company?
  - When was the last company visit made?

- What information was discussed during the visit?
- What action steps were developed?
- What is the timeline to respond back to the company?
- What referrals to each partner agency were made and when?

With sufficient information in the database, Chester County can identify clusters of companies that utilize common types of suppliers and vendors. This information can be used by CCED to target the suppliers and vendors as potential clients and encourage them to establish facilities in the County.

- **Follow Up Strategy -** The easiest way to sink a new BRE program is not following up on concerns and issues identified during a site visit. If a company tells CCED it needs help, but months pass before anything is done, it will soon lose interest in participating in the BRE program. Most BRE programs use a triage method of following up. Issues are divided into those that need immediate action from the CCED, those that must be passed on to an ally agency, and those that the CCED can work on at a later date.

- **Following Up With Partners** - Make sure that items passed on to ally agencies receive timely follow up. CCED is the face of the BRE program, and if a referral for training assistance is made and the technical college does not follow up, the company will see that the breakdown was at the CCED.

- **Visits to Corporate Headquarters** - Retention and expansion visits to the corporate headquarters of local companies pay dividends. Often divisions within a company compete for new product lines and expansions. Visits to headquarters' facilities are as much about recruiting as retention and expansion. When traveling to trade shows, conferences, site consultant sales trips, and other business travel, review the BRE database to see if any headquarters' operations are located in your travel cities. Go through local representatives to set appointments. The visit should be focused on showing appreciation for the local operation, soft marketing of why any expansion should come to Chester County, and building a relationship.

Confidentiality

Just as in business recruitment, BRE programs access confidential company information. Existing businesses must initially be reassured and must trust that CCED will hold information gathered during visits and surveys in confidence, sharing information only with other service providers when required. Some veterans of BRE programs would say that the program has truly "arrived" when companies will share their secrets in order to gain much needed assistance.

Action Steps:

- Develop a confidentiality policy for the BRE program. Sanford Holshouser recommends:

  - Develop a Non-Disclosure Agreement to be signed by CCED staff, the company, and any agency receiving confidential information. The Non-Disclosure is especially important when working on expansions. An example is in Appendix B.
  - Keep all information gathered during visits confidential, sharing critical information with other service providers only after approval by the existing business.
  - The confidentiality statement should be in print and agreed to by others who may have to share the company's information in order to provide assistance.
  - During visits, state CCED's confidentiality policy to companies.

- Reporting on the BRE program to the County, CDA and other groups should only include the names of companies visited each reporting period and an overview of common issues that face many companies. Reporting should not allow for any one company's issue or problem to be singled out or identified by inference.

- When the need for confidentiality has ended, and when the company agrees, publicize the work of the BRE program. Gaining public support for the economic development initiatives requires that the public be informed.

- When engaging another service provider, such as York Tech, to make a joint visit or to provide follow up services, gain clearance from the company for the service provider's participation.

Business and Industry Appreciation

Chester County's existing businesses regularly receive recruitment packages from economic development agencies from other communities. Some Chester County companies are most likely visited by economic developers trying to recruit them away. If a Chester County company is seeing developers from other communities more than they are seeing their own local economic developers, something is wrong with the picture. The visitation program will go a long way to forming firm relationships. Letting companies know the community appreciates them may seem insignificant, but it goes a long way toward building a firm relationship.

Most BRE programs have a component that recognizes the contribution of business in the community. Appreciation and recognition events range from an annual golf tournament, as sponsored by the CDA, to week-long celebrations spotlighting businesses and publicly acknowledging their contributions to the economy and community.

Action Steps:

- **Expand the Current Industry Day** - Expand the current golf tournament/skeet shoot to include a plant tour in the morning and presentation by the CCED at lunch. The event can be done in conjunction with the Chamber of Commerce, Human Resources'

Roundtable and Plant Managers' Roundtable. Many communities organize a week of industry appreciation events. CCED could host plant tours, breakfasts, or other special events throughout a celebration week.

- A plant tour or business visit for community leaders, Department of Commerce officials, teachers, existing industry and business, and the media will raise awareness. Publicity for local companies aids in employee recruitment, raises the image of industries, and expands citizen support of business. Specifically invite local, regional and state elected leaders, business and civic leaders and press and invite the community at large through a first-come first-served reservation system.

- Have local governments issue a proclamation of business appreciation. This act aids in publicity and media coverage of Business and Industry Appreciation Day.

- During industry appreciation week, the CDA board and county council could hand deliver small gifts of appreciation to every industry/business in the BRE program. A small gift and proclamation of support is a way to "touch" each business and a way for community leaders to participate hands-on.

- Develop and place positive stories in the local paper about the business being visited on the plant or facility tour.

- Take out an ad in the paper listing and thanking Chester County companies.

- CDA has sponsored a barbecue event as part of the golf tournament and business appreciation events. Continue this event making it a luncheon to bridge the morning plant tour and afternoon golf/skeet.

- At the luncheon, CCED should give a short presentation on the strengths of the existing business base. Cite safety awards, technology advancements, expansions, and other accomplishments of local business. Keep the sales pitch low and the recognition of business and industry high.

- CCED has assisted companies with state business recognition awards. Creating a local Business and Industry Leaders of the Year Awards is another way to bring positive press to existing businesses. Nominations would be solicited from the BRE database and selected by the CDA Board. This is another way to create positive press and recognize the accomplishments of local businesses.

- **BRE Public Relations** - Beyond an annual day of events, publicize the good things that local companies do throughout the year. One of the hurdles many manufacturers face is image. The number of high school graduates considering a career in

manufacturing has been declining because of the low-skill and declining job image of old-line manufacturers. One service of the BRE program is public relations.

- During regular visitations, ask to be notified of safety, environmental, professional associations, and industry awards received by local businesses. Sometimes you can be placed on the local or corporate media distribution list. Work with the company to make sure the information is released to local media outlets.

- Nominate local companies for regional and statewide business recognition awards such as those given by business associations. Such recognition will not only be good for the company but also good public relations for the community.

BRE Brochure

CCED has marketing materials for business recruitment and is re-vamping its website for marketing. The newly developed BRE program will benefit from a marketing brochure of its own and prominent placement on the website. The brochure can be mailed in advance of calling for appointments, left behind following calls as a reminder of services, and distributed at local events to generate interest in the program. The brochure can be done in-house when getting started and then enhanced with professional marketing services. Information developed for the brochure can be the base of information for the website. Sanford Holshouser included general brochure information in Appendix D for reference.

Business Resource Directory

The CCED staff must become an expert on all of the assistance programs that are available to help retain and expand businesses and share that knowledge. When conducting a visit with a local business, there are many resources (service providers) to discuss: technical college training programs, university outreach, SBA financing, expansion assistance programs, environmental regulation support, Small Business and Technology Development Center, etc. Companies often find the volume of information overwhelming. A BRE resource directory can be a valuable service for local businesses.

The directory is a listing of the many resources that businesses can access for assistance. It is usually organized into sections, such as workforce development, financing, environmental resources, transportation, utilities and other areas of operations. For example, under the workforce development section, entries would include high school shadowing and internships, Workforce Development Board, One-Stop, etc. Each entry lists the organization providing the service with a brief description followed by a contact name, address, phone number, website and email. One way to assemble the information is to ask each service provider to write a short paragraph summarizing its services. It is time consuming to compile the information, but once assembled, it is relatively easy to maintain.

The directory may be published on CD to make updating easier and to reduce printing costs. Sanford Holshouser has seen a good resource listing on a flash drive. It was used as a marketing and promotional item by an EDO. The flash drive contained contacts at the local, regional, and state levels and was packaged with the marketing logo of the EDO.

It is good to have a resource guide when the visitation program begins. It is an excellent leave-behind piece of material. However, the resource directory is a work in progress that will be updated often, and the visitation program must begin quickly.

Existing Businesses as Ambassadors and Recruiters

Existing businesses are the best recruiters in a community. Peer-to-peer contact has proven to be the most effective means of marketing in economic development. Chester County already has some industry ambassadors and should continue to turn existing business leaders into an army of recruiters.

Action Steps:

- During existing business visits, ask for the names of customers and suppliers that could have an interest in expanding into Chester County. This provides good leads for the business recruitment program. It may be mutually beneficial for the existing business and customer/supplier.

- Ask the company if it would be willing to take CCED marketing materials to industry trade shows and share information packets with customers or suppliers that visit the County.

- If the company participates in a trade show in one of Chester County's target industry sectors, ask if CCED staff can work out of the company booth. This will reduce CCED's cost to participate in the trade show, create more recruitment opportunities, and highlight the partnership between CCED and business.

- During site visits, ferret out those companies that would be good spokespersons for the County. Almost always during a recruitment project, the company being recruited wants to interview local companies about the workforce and business climate. Often, the economic developer sits outside the office sweating bullets and wondering if the local company is divulging all the community's dirty laundry to the prospect. If CCED has identified those local company executives who are positive spokespersons, it can confidently use them for prospective company interviews.

Cluster Networking

Chester County has Human Resources and Plant Managers meetings sponsored by the chamber of commerce. These are important forums to network business and industry leaders. As the BRE program progresses, CCED should consider networking meetings based on clusters. Some examples are: invite chemical companies to a luncheon to learn about new regulatory changes; gather all rail-served companies for a presentation by the railroad on new transportation trends; invite all companies using a specific workforce skill to learn about new York Tech training programs. Cluster based meetings need not be regularly scheduled meetings; rather, they should be driven by topic and sharing new information. It might become important for a large cluster to meet regularly in order to share information on their industry, and CCED could be the catalyst.

Early Warning System

One of the benefits of creating a BRE program is the development of an early warning system. As most counties have learned in recent years, plant closings can devastate a community. Often, local leaders find themselves asking, "Was there anything we should have/could have done to prevent the closing/layoff?" In most cases, the answer is no. International business trends cannot be reversed by local policy. However, the answer in a small number of cases is yes. Chester County experienced such a case not long ago, and quick action by Karlisa Parker held on to a company that otherwise would have moved from Chester County. For example, when a company has to choose between closing one of two similar facilities in different cities, it likely will choose to stay in the most supportive city. Generally, however, the reason for moving may be lack of facility space, infrastructure capacity, or workforce skills. Identifying at-risk businesses is an integral part of BRE programs.

Action Steps:

- Develop a profile of an at-risk firm. As CCED works with local businesses, it will gain a better understanding of general indicators of risk. Some trends to watch for are declining sales, declining employment, expansion potential with no more building or land for growth, negative trend for product or service, changes in ownership, contentious labor-management relations, changes in regulations that create barriers to expansion, and others.

- Increase contacts with at-risk firms to assess assistance needed. Instead of visiting the company annually, increase visits to quarterly or check in by phone regularly.

- With the company as a partner, identify the specific factors that are leading to the possibility of a downsizing or closure. Marshall ally agencies at regional and state levels to help CCED retain the company.

- Make contingency plans for what would happen if the company laid-off workers or closed. Assess the marketability of the facility. Inventory skill sets of the employees. Determine the impact on local tax and utility revenues.

Incentives

Competing communities offer your existing businesses promises of a good quality of life, a loyal workforce, easy transportation access, and lots and lots of incentives. Chester County has provided incentives through fee-in-lieu of property taxes and offered other local incentives for recruitment projects. Sanford Holshouser recommends Chester County develop an incentive policy, or incentive guidelines, that address incentives for business retention and expansion. It is important to ensure that local companies are supported as much as or more than new companies.

Professional Development for BRE Staff

The International Economic Development Council publishes the *Business Retention and Expansion Manual* that can be purchased from its website, www.ideconline.org. This provides a good overall background in BRE. There is also specific professional development courses in BRE offered through the International Economic Development Council: these are valuable to both the BRE novice and veteran.

Business Retention and Expansion International (www.brei.org) is an international professional association of BRE professionals. It offers specific professional certification in BRE called the Business Retention and Expansion Professional.

The Charlotte Regional Partnership has established an informal network organization for BRE coordinators. Peer exchange of ideas and experiences can be valuable for Chester County's BRE Coordinator.

Sanford Holshouser recommends that the Existing Business Coordinator review current materials published through professional associations and regularly participate in training courses focused on business retention and expansion. The field is changing quickly and regular updates are important to remain abreast of new and innovative approaches.

Chester County's BRE 90-Day Action Plan

The Chester County BRE program is newly developed and would benefit from a 90-day action plan to chart an aggressive course. After reviewing the BRE program components above, one could ask, "Where do I get started?"

First 30 Days

- Develop the database of companies to be visited. Companies can be added to the database as the BRE program develops.
- Meet with ally agencies and service providers face-to-face or via conference call to introduce the CCED staff leading the BRE effort. Share your goals and that you will be making referrals for services. For those unable to meet quickly, conduct an online review of the agency.
- Send program introductory letters to all companies in the database.
- Develop a data management system through training in ExecutivePulse, ACT!, or other database tool.
- Finalize the survey instrument using the one in this report.
- Develop the confidentiality policy and nondisclosure document.
- Schedule the first round of 7 - 10 company visits in one week. Select priority companies, such as large employers and at-risk companies, for the first visits.

Second 30 Days

- Continue meeting the goal of 7 - 10 company visits each week. Begin to diversify the call list to include small companies and diverse industry sectors. This will provide CCED with a well-rounded view of the business base.
- Refine the survey instrument, tailoring to Chester County's businesses.
- Invite all ally agencies and partners to a work session in Chester County. During the session, review in detail the BRE program, their role as allies, confidentiality requirements, how follow up with the agency will be conducted, etc.
- Attend HR and Plant Managers meetings to network.
- Develop an in-house BRE brochure, and make plans for a professional marketing brochure.
- At the end of this period, begin reviewing data for workforce trends, common transportation needs, training program needs, and other common barriers to expansion. These issues will form the platform for advocacy.

Third 30 Days

- Continue meeting the goal of 7 - 10 company visits each week.
- Create a BRE professional development plan identifying courses or training that will support CCED's program.
- Plan for an expanded industry appreciation event.

- Begin the public relations program by working with companies to publicize their accomplishments. If the opportunity arises, publicize an early success in the BRE program (For example: CCED helps *XYZ* company resolve infrastructure issue).
- Schedule a round of presentations on the BRE Program at the HR and Plant Managers meetings, Chamber of Commerce, County Council, and to other groups that can help get the word out about the program.

Existing Industry and Business Survey Instrument

The cornerstone of a proactive existing business program is regularly assessing the status of local companies during site visits utilizing a survey instrument. Sanford Holshouser reviewed the survey currently being used by CCED and has some suggestions for expanding the survey to capture more information. It appears the current survey form is for phone contacts. Sanford Holshouser prefers and recommends regular face-to-face business visits. The survey items below are intended for in-person site visits.

During the first visit, a broad base of information on the company should be gathered. On subsequent visits, the survey questions can be reduced to monitor the company's specific issues. Information gathered here should be maintained in the company file, electronic database and/or ExecutivePulse. After a majority of local businesses have been visited and surveyed, review all surveys for common trends and issues.

Additional Information to Gather During BRE Site Visits - The information below is in addition to the baseline information gathered with the existing CCED survey.

Company Information - In addition to the company information on the existing form, add line for: company website

Personnel/Contacts Information - complete

Capital Investment and Expansion
- Contraction/closure potential

Company Ownership – complete including division headquarters (for example, the local XYZ company may be owned by Mega Holding Company in London with the division headquarters for XYZ's group in New York. CCED should be on good terms with XYZ and the headquarter bosses).

Production Information - add the following:
- Product/Service at other locations
- New product lines being developed
- Who are primary customers/suppliers and where are they located?
- Import/Export products/services
  - Where are international customers?

Facility - add a new section
- Building square feet (office/production/warehouse)
- Percentage occupied
- Year(s) of construction
- Acreage
- Own or lease
- Is there excess production space?

Is there adjacent land available for expansion?

Workforce - break out workforce into its own section
- Total number of employees
- Total number of full-time, part-time and seasonal employees at CCED location
- Description of types of positions (operators, clerical, engineers)
- Compared to one year ago, is employment up/down? (trends from last five years)
- Average age of workforce, percent male/female
- Unionized or union activity, name of union
- Annual turnover rate
- What methods are used for workforce recruitment?

Training - add a new section
- What types of training are conducted?
- By whom? In-house/vendor/community college
- In what areas does the workforce need additional training?

Transportation - add a new section
- Condition of local access roads
- Condition of major transportation routes
- Safety concerns with transportation routes
- Average daily truck traffic

Utilities (adequacy now and in the future) - add a new section
- Water
- Sewer
- Electric
- Natural Gas
- Telecommunications

Regulatory Issues - add a new section
- Environmental concerns
  - Air permits
  - Storm water permits
  - Waste disposal
- Department of Revenue, tax regulation
- General concerns with regulatory climate

Financing - add a new section
- Issues in securing financial capital

Appendix A

Program Introduction Letter

Date

Contact
Company
Address
Address

Dear _____,

Chester County has launched an Existing Business Retention and Expansion (BRE) effort aimed at providing assistance to our local companies. We recognize the important role that business and industry play in our economy and quality of life. We want to help you grow your business here.

Existing businesses are the cornerstone of the Chester County economy. Through payroll, civic contribution, local taxes and community leadership, your company supports the services and amenities that offer our citizens an outstanding quality of life. In recent years, our community has lost many of its major employers. Chester County and the Chester Development Association are working in partnership to retain our business base and encourage that base to grow.

Through the Existing Business Retention and Expansion Program, Chester County Economic Development staff will be regularly visiting local companies to: 1) ask what we can do as a community to help you retain and grow your business; 2) understand and help solve growth obstacles; and 3) foster a partnership between business and the community.

Over the next few months and on a continuing basis, Chester County Economic Development will visit our local companies. Please look for Hal Stone, Director, Business Retention and Expansion Program, to contact you to be involved in this most important economic development initiative.

Sincerely,

Appendix B

Example Confidentiality Agreement

Below is a sample confidentiality agreement for the BRE program that can be used during site visits. Sanford Holshouser recommends using a similar form between the CCED and ally agencies to guarantee the ally will keep BRE information confidential.

Any and all information provided to _____ by _____ will be held in the utmost of confidence. _____ nor any of its agents will make information gathered during a business visit, survey, expansion/downsizing project assistance available to anyone outside the organization. The information provided will only be used to assist _____ to enhance its capabilities and improve its business capacity in _____ County. Further, ally organizations do also hereby agree to abide by the same confidentiality covenants.

_____

(EDO)

By:_____

Authorized Agent

_____

(Company)

By: _____

Ally Organizations: (when participating in visits and expansion/downsizing projects)

_____

_____

_____

_____

Date:_____

Appendix C

BRE Service Providers

Core Service Providers

- York Technical College
  - Basic Skills
  - Training Programs
  - CATS
  - Small Business Support
- SC Department of Commerce
  - Business Services Department
- SC Employment Security Commission
- One Stop - Chester Workforce Center
- Utilities - electric, natural gas, telecommunications
- County and Municipalities

Other Service Providers

- US Department of Agriculture
- US Small Business Administration
- Regional Colleges and Universities
- Regional venture capital, angel networks
- Regional entrepreneur networks
- State Dislocated Worker Unit
- State Workforce Investment Board

Appendix D

This is an example of an in-house BRE brochure and the information it supplies. Something similar would be sufficient until CCED can develop a marketing brochure in conjunction with a marketing firm.

How can the Chester County Business Retention and Expansion Program help my business?

- Business planning
- Accessing financing
- Advocating for transportation improvements
- Export assistance
- Accessing training programs
- Employee recruitment
- Accessing state support programs
- Advocating for utility expansions and improvements
- Assisting with local and state regulatory issues
- Identifying sites and buildings for expansions

Chester County Business Retention and Expansion Program

Helping Local Businesses Grow

For more information contact:

Hal Stone, CEcD
Existing Industry Coordinator
Chester County Economic Development
121 Main Street
PO Box 771
Chester, SC 29706

Phone: 803-337-1216
Fax: 803-377-2102
Email: hstone@choosechester.com
Web: www.choosechester.com

Chester County

CCED Logo

Existing Business Retention and Expansion Program

Helping Local Businesses Grow

The Business Retention and Expansion Program provides information and resources to local businesses to help them grow and expand in Chester County.

Why a Business Retention and Expansion Program is important to local businesses:

- Connects local businesses to resources that can help them overcome barriers to growth.
- Provides a one-stop-shop for business information needs.
- Advocates for local business needs at the local, regional and state levels.

Why a Business Retention and Expansion Program is important to the community:

- Existing businesses are the cornerstone of the economy.
- Shows support for business.
- Maintains local employment.
- Adds to the local tax base.
- Diversifies the economy.

Insert company quote about CCED existing business efforts. ***name, title, company.***

Business Retention and Expansion Services:

- Connect business to resources for financing, business planning, workforce development, exporting, training, employee recruiting, and other services.
- Conduct regular site visits with local businesses to provide useful information and CCED support.
- Advocate on issues important to local businesses in the areas of transportation, regulations and policy matters.
- Develop a business resource directory listing the many resources available to help all businesses, from small, entrepreneurial businesses to large industry.
- Identify sites and buildings available for expanding businesses.

Chester County Economic Development connects businesses to helpful resources. Here are some of our partners:

- Charlotte Regional Partnership
- York Technical College
  - o Small Business Support
  - o Industrial Training
  - o New and Expanding Industry Support
- SC Department of Commerce - Business Services Division
- US Small Business Administration
- US Department of Agriculture
- SC Employment Security Commission
- One-Stop Workforce Development Services
- Utilities, banks, and other resource providers
- *CCED to list other*

APPENDIX B

Appendix B: Economic and Demographic Profile

Sanford Holshouser gathered economic and demographic information on Chester County to review current trends in the population and economy. The quantitative analysis below is part of the strategic planning process as it is used to benchmark Chester County with neighbors, competing counties, the Charlotte region, and South Carolina. Neighboring and competing counties were selected by Chester County and include Aiken, Charleston, Lancaster, Union and York Counties. The counties were selected because of their proximity to Chester, because they regularly compete with Chester, or because the county is home to a mega-site.

Chester County has made significant advances in education, home values, retail sales and wages while many rural counties have not. There are concerns about slow population growth, labor force, and disparities with competing communities, the Charlotte region, and South Carolina. In order to capitalize on growth, now is the time to focus on and overcome weaknesses.

Population

The County and all municipalities in Chester County, except the City of Chester, are experiencing declining populations. Municipal populations declined between 2000 and 2005 ranged from 2.9% to 4.5%, but Chester's gained 4.8%. Population decline in the County was about 3.6% from 2000 to 2006. The County's negative growth rate stands out compared to the positive growth rates of the Charlotte MSA (14%) and Columbia MSA (6.6%). In the comparable group, only Chester and Union Counties (-5.2%) have negative growth rates. York County is one of the fastest growing counties in the state at 20% from 2000 to 2006.

Population

	2000	2005
Chester	6,199	6,497
Fort Lawn	865	833
Great Falls	2,194	2,095
Lowrys	207	201
Richburg	333	321
Chester County	34,129	32,875 (2006)
Charlotte MSA	1,330,448,	1,521,278
Columbia MSA	647,158	689,878

US Census Bureau 2000 and SC Budget and Control Board, Office of Research & Statistics

Age Demographics

Chester County's age demographics are slightly younger than those of South Carolina as a whole. The 2007 County youth age groups are estimated to be declining while the older age

groups are estimated to be increasing, a reflection of the aging population across South Carolina. It is important to note that unlike similar SC counties, Chester is expected to maintain or grow the working age groups.

Percent of Population by Age Group

	Chester County		South Carolina
Age Groups	**2000 % of total population**	**2007 % of total population**	**2007 % of total population**
0 – 4	6.8%	6.8%	6.6%
5 - 9	7.6%	6.5%	6.3%
10 - 14	8.1%	6.8%	6.4%
15 - 19	7.3%	7%	7%
20 - 24	5.7%	6.2%	6.9%
25 - 34	13.1%	12.8%	13.4%
35 - 44	15.1%	14.1%	14.3%
45 - 54	14%	14.6%	14.5%
55 - 64	9.8%	12.4%	11.8%
65 - 74	6.9%	7.1%	7%
75 - 84	4.4%	4.2%	4.2%
85+	1.3%	1.5%	1.6%

US Census and ESRI

Population by Race & Ethnicity

Chester County is becoming more racially and ethnically diverse. While the County is still predominately white, the percentage of non-whites has increased by a total of 2.7% from 2000 to 2007. The percentage of the population that is of Hispanic Origin is the lowest of the comparable community group. The projections for 2012 show the population diversity trend continuing. The fastest growing group is projected to be "Some Other Race Alone" and "Hispanic Origin."

Chester County Population by Race & Ethnicity

Race/Ethnicity	2000	2007	2012
White Alone	59.9%	58.8%	57.9%
Black Alone	38.7%	39.5%	40.0%
American Indian Alone	0.3%	0.4%	0.4%
Asian or Pacific Islander Alone	0.3%	0.4%	0.5%
Some Other Race Alone	0.2%	0.3%	0.4%
Two or More Races	0.6%	0.7%	0.8%
Hispanic Origin	0.7%	0.9%	1.1%

Source: US Census and ESRI

Education

Chester County made significant progress in educational attainment during the 1990 – 2000 census period, the latest reliable demographic available. More citizens are graduating high school and completing some college. In 2000, about 33% of the population did not have a high school education, compared to 43% ten years previous. There were increases in associate, bachelor, and graduate degrees. However, even though there were improvements, figures show lower educational attainment scores than the peer counties reviewed for this study. Chester County had the second highest percentage of the population over the age of 25 with less than a high school degree, ranking better than Union County only. Economic development success is directly related to education. Overall low scores and low educational attainment are hurdles for Chester to overcome.

SAT scores for the County School System lag only slightly behind the state and national averages at 98% and 95% respectively. The favorable comparison to state and national average SAT scores is due to declining state and national scores as the Chester County scores have remained relatively constant. Chester County ranks in the middle of peer communities in SAT scores.

Educational Attainment

	Chester County 1990 **% of pop. Over 25**	**Chester County 2000** **% of pop. Over 25**
Less than H. S.	43.1%	32.9%
H. S. graduate	33%	36.1%
Some College No Degree	10.5%	16%
Associate Degree	4.4%	5.4%
Bachelor' Degree	5.9%	6.1%
Graduate or Professional Degree	3.1%	3.4%

US Census Bureau

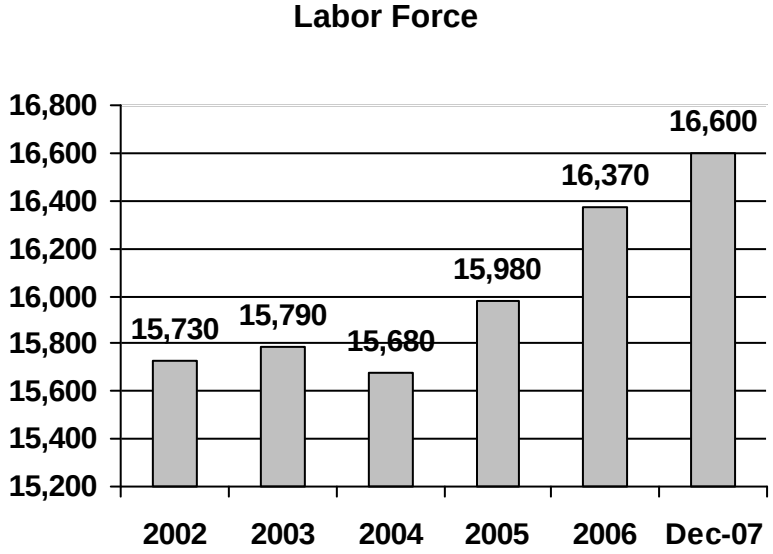
SAT Scores

	2005	**2006**	**2007**
Chester County	963	967	964
Aiken County	1013	1010	1002
Charleston County	987	973	982
Lancaster County	962	959	932
Union County	901	906	902
York County	1010	1014	1002
South Carolina	993	985	984
United States	1028	1021	1017

SC Department of Education, NC Department of Instruction

Labor Force

The Chester County labor force has moved up and down only slightly since 2002. Overall, the labor force has grown. The monthly figure for December 2007 (16,600), which includes seasonal workers, shows the labor force slightly higher than the 2006 annual average. Growth from 2002 to present was 5.5% while the state labor force grew 10.5%, and the Charlotte Region's labor force grew 9.95% in that period. Aiken, Charleston, Lancaster, and York counties showed faster growth than Chester County while Union County grew at only 0.57% over the period.



SC Employment Security Commission, NC Employment Security Commission

Largest Employers

Chester County is home to many major manufacturing companies even after losing several large employers to overseas competition. Below is a list of major employers, provided by CCED.

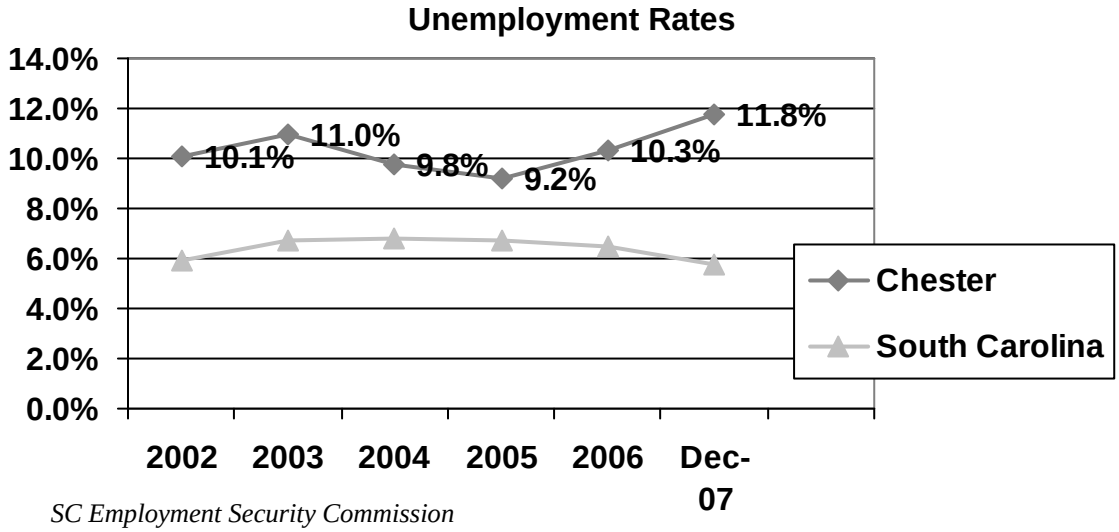
Company	Industry	Employees
Chester County School District	Education	908
Cultured Stone	MFG -Faux Stone	530
Chester Regional Medical Ctr.	Healthcare	375
Guardian Glass	MFG -Float Glass	335
Allvac	MFG – Steel Rods	310
Chester Wood Products	MFG -MDF	300
Chester County Government	Public	267
Superior Essex	MFG -Communication Wire and Cables	264

Company	Industry	Employees
Phillips Industries	MFG – Doors and Windows	165
Haddon House	Warehouse and Distribution - Food	154

Source: CCED

Unemployment

Chester County's unemployment trend has stayed well above the state average, and the current rate is currently 11.8%. The December 2007 unemployment rate is higher than the last few years' annual average. Union and Lancaster Counties have similarly high unemployment rates while Aiken, Charleston, and York County have rates that are lower than the state average.



SC Employment Security Commission

Announced Expansion and New Business Locations

To counteract the media attention gained by company closings and layoffs, the consulting team asked that CCED provide information on new business locations and expansions in the last two years. In 2006 / 2007 there were three significant housing and mixed-use developments announced.

- **Montrose** is a 6,600 acre planned development located on both sides of I-77 between exits 62 and exit 55. The developer estimates that 12,000 – 15,000 housing units will be built over a 20-year period. The development will promote a sustainable community environment under the live, work, and play principle with amenities and public infrastructure.

- **Lando Mill Redevelopment** is located in Lando, just off of SC Hwy 909. This development estimates 900 housing units built over a 10-year period.

- **Courtney on the Catawba** will be an approximately 800-acre development located on River Road in Fort Lawn. It is estimated to develop 346 housing units

In addition to the developments above, these are the business and industry announcements of new locations and expansions.

Year	Company	Industry	Employees
2004	Cultured Stone - Expansion	Manufacturer Faux Stone	350
2004	Cultured Stone - Expansion	Manufacturer Faux Stone	45
2004	Superior Essex - Expansion	Coatings for Copper Wire	40
2005	American Carbon Tech.	Manufacturer of Carbon to treat water and gas	20
2005	Synsil	Manufacturer of Synthetic Sand for paper and glass industries	20
2005	SoloStructures America, LLC	Manufacturer Light Gauge Steel Framing for housing and commercial structures	65
2006	International Piping Inc.	Piping for Mechanical and Fire Processing	80
2006	Poly America	Manufacturer of Trash Bags and Geothermal Linings	500
2006	Guardian Glass - Expansion	Manufacturer of Float Glass	0
2006	JRS Custom Fabrications	Manufacturer of Generator Housings, Underground Storage Tanks and Trailers	170

Source: CCED

Recent Closings and Layoffs

Chester County has been severely impacted by the closing of major industrial facilities and small businesses alike. The single largest impact comes from the closing of Spring facilities.

Year	Company	Industry	Employees
2004-2007	Springs – Frances, Elliott, Leroy, Katherine, HW Close Plant	Textiles	2,500
2005-2007	F. Schumacher	Home Fashions	350

Year	Company	Industry	Employees
2006	PCC Richburg	Air Craft Parts	40
2006	Chester Wood Products	Saw Mill	88
2005-2007	Chemtrade Logistics	Chemical	60
2007	Synsil	Synthetic Sand	20

Source: CCED

Workforce Commuting Data

The 2000 census data show that more people commute out of Chester County for work than commute in. Since the 2000 figures reported below, it is estimated that the out-commuting population has increased due to plant closings and fast job growth in neighboring York County. Of the total number of people working in Chester County, about 31% commute into the County. In-commuters come from Lancaster County (1,295), York County (951), and Fairfield County (439). Out-commuters, 44% of the resident workforce, drive to York County (3,064), Mecklenburg County (1,370), and Lancaster County (934).

Commuting Statistics for Chester County	1990	2000
Working here	**12,754**	**11,743**
Live & work here	9,225	8,114
Live elsewhere & work here	3,529	3,629
% workforce commuting in	28%	31%
Live here & work elsewhere	4,729	6,342
% resident workers commuting out	34%	44%

US Census Bureau

Employment and Wages

In the latest employment figures available, the largest employment sector is Manufacturing, employing 36% of the workforce. That figure is surprisingly high as most rural economies have been forced to diversify. Other large employment sectors include Local Government (13.6%), Retail Trade (8.1%), and Health Care and Social Assistance (7.3%). Manufacturing employment grew from 2004 to 2005, but plant closings have caused the industry's employment to shrink. The table below does not show the hundreds of jobs lost in 2007 from manufacturing closings. Not shown below is that over 137,000 people work in manufacturing within 50-miles of I-77 and exit 65. Also not shown is the total employment figure of over 1 million in that 50-mile radius.

The leading wage sectors in Chester County are Information, Construction, Federal Government, and Manufacturing. However, all of these sectors, except for Manufacturing, employ few

people. The largest employment sector, Manufacturing, pays well above the median wage of $32,028, but Retail and Healthcare, other large employment sectors, do not.

Of the comparable county group, Chester County's median wage is the second lowest next to Union County ($28,459). The county with the highest average wage is Aiken County.

Wages grew 6.4% from 2004 to 2006 in Chester County and 9.5% in the Charlotte Region. In the comparable county group, Charleston County wages grew the fastest at 10.1%. Aiken County grew the slowest out of the group at 5.7%.

Chester County
Insured Employment and Wages for Select Industries
for 2004, 2005, and 2006

	2004		2005		2006	
Industry	**Monthly Avg Empl**	**Avg Ann Wage Per Employee**	**Ann Avg Empl**	**Avg Ann Wage Per Employee**	**Ann Avg Empl**	**Avg Ann Wage Per Employee**
Agriculture, Forestry, Fishing & Hunting	67	$29,538	64	$32,525	65	$38,287
Construction	604	$34,837	687	$40,448	680	$43,194
Manufacturing	3,902	$36,390	4,165	$37,575	3,892	$38,892
Wholesale Trade	639	$37,713	603	$32,240	509	$37,863
Retail Trade	879	$17,046	864	$17,722	876	$17,656
Transportation & Warehousing	313	37,364	355	$37,142	367	$33,443
Information	141	$40,714	139	$44,716	148	$46,551
Finance and Insurance	194	$24,961	183	$30,121	187	$32,440
Real Estate and Rental and Leasing	46	$27,275	44	$30,403	42	$31,029
Professional and Technical Services	109	$27,425	120	$27,097	123	$25,799
Administrative and Waste Services	226	$14,565	218	$17,630	298	$17,500
Health Care and Social Assistance	554	$24,327	814	$26,295	789	$28,068
Arts, Entertainment, and Recreation	41	$12,072	46	$12,133	46	$12,818
Accommodation and Food Services	639	$10,667	625	$10,943	676	$11,162
Other Services, Ex. Public Admin	143	$19,440	152	$18,552	173	$17,861
Unclassified	40	$18,880	21	$23,571	28	$42,178
Total Federal Government	66	$41,963	65	$41,414	65	$42,666

Total State Government	293	$30,476	299	$31,054	300	$32,003
Total Local Government	1,758	$28,321	1,455	$29,577	1,465	$30,417
Total Private Industry	8,564	$30,368	9,127	$31,569	8,924	$32,215
Total All Industries	10,681	$30,105	10,946	$31,349	10,755	$32,028

SC Employment Security Commission

Gross Retail Sales

Gross retail sales figures for Chester County grew in each year reviewed. Municipal gross sales also show positive growth. Chester leads all municipalities with sales in the 2005-06 year at $103,159,218. Figures for the County do include municipal retail sales.

Gross Sales in Millions

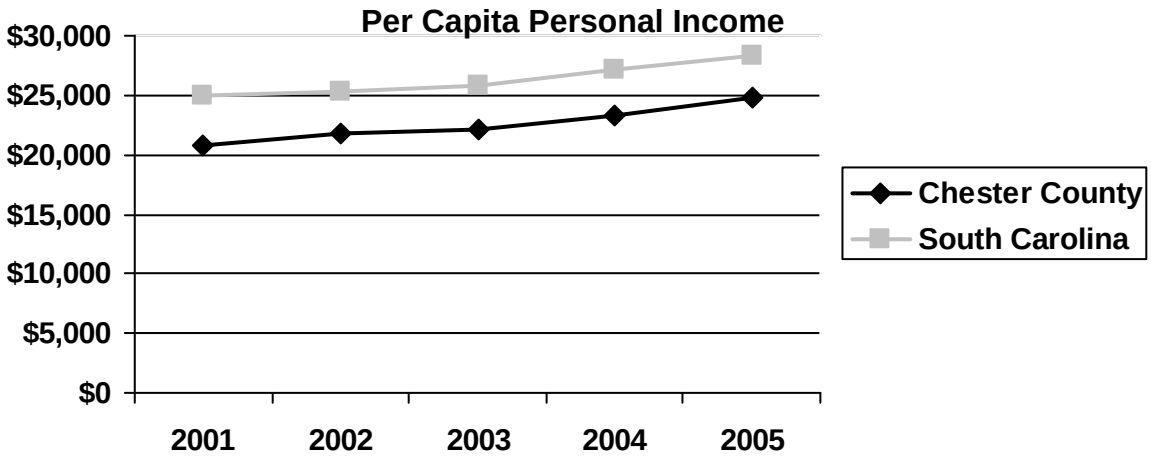
	2002-03	2003-04	2004-05	2005-06
Chester County	$507	$521	$542.6	$576.6
Chester	$75.1	$108.6	$120.7	$103.2
Fort Lawn	$2.5	$1.6	$3.1	$3.7
Great Falls	$34.7	$32.6	$44.7	$53.9
Lowrys	*	*	*	$2.8
Richburg	*	$3.9**	$0.017	$0.009

**Too few entries to report.*
***This is the figure reported by SC Department of Revenue. However, it does not trend with other Richburg reports and is suspect.*
SC Department of Revenue, Annual Reports

Per Capita Personal Income

In 2005, per capita personal income for Chester County was $24,814 and $28,285 for South Carolina. In the peer county group, income levels were: Lancaster $23,560; Union $24,396; Aiken $28,418; York $29,904; and Charleston $34,158 placing Chester County in the middle of the group.

From 2001 to 2005, Chester's per capital income grew from 83% of the state average to 87% of the state average. It is a positive economic signal that Chester's income levels are growing closer to the state average.



US Census Bureau

Housing

Median Home Values in Chester County have sky-rocketed 56% over the seven year period, 2000 to 2007, with a median home now valued at $93,601. The County surpassed Aiken, Union, and York Counties in median home value growth from 2000 to 2007. Lancaster's growth was similar at 57%. Charleston blew the others away with 77% growth in median home value. While growth has been fast, Chester County has the second lowest median home values of the group, meaning housing is still very affordable

Owner occupied homes make up about 69% of Chester County homes while renter occupied homes make up about 17.9% of homes with a vacancy rate of 13.1%.

Media Home Value by County

County	2000	2007 Estimate	2012 Projection
Chester	$60,187	$93,601	$106,577
Aiken	$76,757	$115,260	$134,573
Charleston	$117,731	$207,821	$254,259
Lancaster	$71,091	$111,443	$128,049
Union	$56,578	$87,060	$99,797
York	$104,863	$145,558	$170,996
Charlotte Region	$107,406	$141,897	$173,640
South Carolina	$83,108	$113,763	$139,094

Source: US Census Bureau, ESRI

APPENDIX C

Target Industry Overviews

Automotive Manufacturing

Definition

NAICS Codes

33611 – Car & Automobile Manufacturing
33621 – Motor Vehicle Body Manufacturing
33631 – Automobile Engine & Parts Manufacturing
33632 – Automobile Electric & Electronics Manufacturing
33633 – Automobile Steering & Suspension Components Manufacturing
33634 – Automobile Brakes Manufacturing
33635 – Automobile Transmission & Power Train Parts Manufacturing
33636 – Automobile Seating & Interior Manufacturing
33637 – Automobile Metal Stamping
33639 – AC, Exhaust, Air Bag, Wheel & Other Auto Manufacturing

Recommended Research Filters

When marketing to this industry, we recommend that Chester County target companies within the following parameters.

Sales:	$10m minimum
Employment:	100 minimum
Geographic Scope:	National
Growth:	10% in sales or employment (over two years)
Events:	Predictive events such as executive change, merger/acquisition, new markets, new products/services, new contract, and IPO.

Automotive Manufacturing Universe	
Companies within geographic scope	16,287
With 100+ employees and $10m+ sales	1,213
With growth and/or events	307

Industry Importance Factors

Most of the significant site location factors revolve around labor and workforce for the manufacturing industry. It would follow then that available education and training in disciplines, such as various engineering, precision manufacturing, and robotics, would be paramount. Worker compensation costs and unemployment insurance costs are usually of significant concern as well since much of manufacturing production work is done with complex machinery.

Other critical site location factors considered by the manufacturing industry include energy dependability, access to intermediate manufactured products, and the cost to transport goods. All are important factors are most manufacturing intensive industries. Reliable and high-quality energy is a far greater consideration than the cost of energy since disruptions are very costly in lost production time and machinery configurations. Also, easy access to production inputs become more important as the number of parts and required components grows. Many manufacturers have a high number of parts to track and assemble.

For the most part, quality of life and business incentives are not one of the main site location criteria. The quality of life consideration will become more important if top level executives are locating with the new site. Business incentives for locating a plant will only come into consideration at the end of a decision process. Also, incentives may have less of an impact on the overall decision since the capital investment required for the location of a manufacturing facility is very high. Construction costs, built space cost and availability are other site factors that deserve a mention as having importance for the manufacturing industry.

Labor Outlook

NAICS Code	Industry	1996 Jobs	2006 Jobs	2016 Jobs	1996-2006 Change	2006-2016 Change
3361	Motor Vehicle Mfg.	285,300	236,100	225,800	-17%	-4%
3362	Motor Vehicle Body Mfg.	155,100	180,200	176,100	16%	-2%
3363	Motor Vehicle Parts Mfg.	799,900	654,100	515,800	-18%	-21%

Source: U.S. Bureau of Labor Statistics, Monthly Labor Review, November 2007

33611 – Car & Automobile Manufacturing in the U.S.

This industry comprises establishments primarily engaged in (1) manufacturing complete automobiles (i.e., body and chassis or uni-body) or (2) manufacturing automobile chassis only.

The major demand determinants include:

- Determinants of demand include vehicle prices (which are determined largely by wage, material and equipment costs, manufacturers' incentives and exchange rates), incomes which determine affordability, interest rates, scrapping rates, product quality and product innovation.
- The level of import penetration is also a determinant of demand for domestically manufactured vehicles.
- Movements in fuel prices generally influence the demand for vehicles by type. During periods of high fuel prices, more fuel efficient vehicles are in demand. For instance, throughout 2006 and 2007, Japanese car makers offering more fuel efficient vehicles tended to take market share from manufacturers of large vehicles such as General Motors, Chrysler and Ford.

- The top four best selling cars in 2007 were Toyota Camry, Honda Accord, Toyota Corolla/Matrix and Honda Civic. Imported cars increased their market share in 2007 to 31.1% from 30.0% in 2006.

The life cycle stage of this industry is mature:

- Unlike previous periods, currently there is no untapped portion of the population that is about to enter the market. The baby-boomers and women have led the surge in the past. However, as these buyers are already in the buying pool, growth in the baby-boomers market will not significantly affect the total number of new vehicle sales, although it is likely to affect the types of vehicles purchased.

Industry Outlook

Industry revenue growth is expected to fluctuate between 2.2% and 1.1% per annum over the rest of the forecast period to 2012, with an annualized revenue growth rate of 1.7% and value added of 2.0%, while the US economy is expected to expand by 2.7%.

Industry profitability is expected to improve considerably from 2009 onwards as General Motors, Chrysler and Ford restructure themselves.

General Motors is to extend buyouts to a total of 46,000 hourly paid workers as it continues its restructuring plan. General Motors believes that it can negotiate with the United Auto Workers (UAW) a savings of $5 billion by 2011 and it has set a new automotive structural cost target of 23% of revenue by 2012.

Chrysler is expected to eliminate four models by the end of 2008 or early 2009, that include the Dodge Magnum, the convertible version of the Chrysler PT Cruiser, the Chrysler Pacifica crossover and the Chrysler Crossfire roadster.

The US dollar weakness is prompting some European car makers to expand their manufacturing capacity in dollar-denominated markets, creating a natural hedge against the currency fluctuations, which affects their profitability. However, the US dollar is expected to strengthen during 2009, applying some pressure on exports.

Exports have a limited potential to grow as the US product is over-equipped and expensive for the developing automobile markets of China, India, Latin America and Eastern Europe. Even without local production requirements, the low vehicle prices needed to be successful in evolving markets are incompatible with the product costs associated with US manufacturing efforts. This scenario provided the impetus for Ford Motor Company and General Motors to expand production capacity in China through their joint venture partners.

Canada is the market that is most accepting of US made vehicles. However, because of lower incomes, higher taxes and vehicle prices, and a weak Canadian dollar, the best selling models in Canada tend to be smaller and less expensive than the US best-sellers. As the Mexico market continues to expand, automakers will increase the number of models tailored for that market.

The Canadian light vehicle market in total is expected to reach only 1.95 million by 2008, with the Mexican market reaching 900,000 to 950,000 units. As a consequence, the two export markets with the greatest potential for US made products have limited growth potential and are significantly smaller than the US market.

Components that have significant steel ingredients are expected to cost less in the short-term as steel prices are expected to decline after the US International Trade Commission (ITC) revoked anti-dumping and countervailing duty orders on corrosion resistant steel from Australia, Canada, France and Japan in late 2006, but left orders in place on imports from Germany and Korea, until the next review in 2011.

More stringent environmental regulations are expected during the forecast period to 2013 and astute manufacturers have been preparing conversions to their product to comply with these forthcoming regulations.

According to industry sources, the world fuel cell market will more than triple through 2008 to $10.0 billion, and exceed $25 billion by 2012. Fuel cells are receiving extensive investigation due to their inherent nature as low-polluting, high efficiency energy sources. Three major markets are emerging: electric power generation, portable electronic devices and motor vehicles. To this extent, the Bush Administration has committed $1.2 billion towards further research into fuel cell technology. A number of initiatives by groups of manufacturers and their suppliers are looking to solve the problems associated with fuel cell technology.

A set-back to the introduction of fuel cell technology occurred when Toyota had to recall all six of its hydrogen powered vehicles following the discovery of a leak in a fuel tank on one of the cars. The leak in one of the cars was discovered when its high-pressure hydrogen tank was being refilled. The discovery of the fault meant that Toyota's plans to lease six more FCVs have had to be postponed.

Meanwhile, auto assemblers have focused on the development of petrol-electric hybrid vehicles to increase fuel economies and cut exhaust emissions. Ford and Toyota are expected to concentrate on making hybrids from existing platforms. Toyota has decided to begin production of hybrid vehicles in China. Competition in the hybrid segment is projected to intensify further in the near future. There will be as many as 65 hybrid models (28 cars and 37 light trucks) in the market by 2010, with sales expected to reach nearly 775,000 units, or just under 5% of the total US new light vehicle market.

Ford is expecting to source more $10 billion worth of parts and components from China in 2008. Ford spends about $90 billion a year on purchasing, of which about two-thirds is spent on procuring parts and components for vehicles.

Industry sources indicate that the US market for hybrid vehicles or clean diesel engines are forecast to exceed 11% of the total vehicle market by 2012. Sales of hybrid light vehicles will rise to three million by 2015, equivalent to 17.7% of the total US light vehicle market.

A Chinese company, Nanjing Automobile Group, which bought the assets of the bankrupt MG Rover Group aims to be the first Chinese car maker to open a factory in the United States, to build a newly designed MG TF Coupe in 2008.

Excerpts from ***Car & Automobile Manufacturing in the U.S.***, IBISWORLD Industry Report, February 2008

33621 – Motor Vehicle Body Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing motor vehicle bodies and cabs.

The major demand determinants include:

- Demand for the motor vehicles and car bodies segment is driven by the requirement to provide cabs for trucks, building of bus bodies and modification to cars, including the assembly of kits. Demand for bus bodies depends on the rate of utilization of public transport services compared with use of the private automobile.
- Demand for van and truck bodies depends on volume of freight available, which in general terms is determined by macroeconomic activity.
- Demand for segments such as waste collection vehicles is determined by the level of building construction activity, industrial production, movements in waste recycling rates and population growth rates.
- Demand for ambulance vehicles is determined by its services provided, which in turn are determined by population growth, changes in the geographic distribution of the population (and population density), changes in age profile of the population, trends in the delivery of health care, and by changes in the level of response that is demanded of ambulance services by both the market and regulators.
- Other segments that utilize services of this industry include Ready Mix Concrete Vehicles and Armored Cars.
- Fuel input acts as a complement to road transport. Increases in fuel costs, directly impacts on total operating costs, which if not compensated for, can lead to the withdrawal of a particular road based transport service and therefore lower demand for corresponding transport equipment.

The life cycle stage of this industry is mature:

- The industry is considered mature as demand for its products is cyclical and the industry has experienced significant mergers and acquisitions. However, from 2008 onwards, the bus body and specialized segments are expected to grow strongly due to the increase in demand for tourist related services, waste collection services and ambulance and firefighting services
- The industry has had little break-through in new products and manufacturing processes are readily available.
- Over the current period, industry value added grew faster than US GDP as the industry experienced a dismal 2002, when value added declined by 29.2%.

Industry Outlook

The performance of this industry is linked to activities in the specialized vehicle segment, which is determined by activity in specific applications; the bus body segment, which is determined by patronage of public passenger transport and the truck cabs segment, which is determined by activity in the trucking market.

The specialized segment applications include waste collection, ready-mix concrete, armored car services and ambulances.

Demand from the waste collection industry is influenced by the level of building construction activity that affects demand for collection of building and construction waste, movements in industrial production activity that affects demand for industrial waste collection and movements in recycling rates for households. Construction activity is expected to be moderate over the next five years, while household waste collection activity growth rate will increase at around 1.6% over the next five years.

The activity of ready-mix concrete trucks is dependent on the movements in downstream construction markets that include building and infrastructure projects. Demand for motor vehicle bodies generated for the next five years is expected to be moderate.

The number of ambulances that is to be required at any particular time is a function of population growth, changes in the geographic distribution of the population (and population density), changes in the age profile of the population, trends in the delivery of health care, and by changes in the level of response that is demanded of ambulance services by both the market and regulators. All these factors are expected to contribute to growth in demand for ambulance services and therefore the number of ambulances required over the outlook period.

Demand for armored cars stems from changes in economic growth, in particular retail sales, other cash transactions, growth in the number and use of ATMs, and the extent of wagering and the use of slot machines. Demand is expected to increase moderately over the forecast period to 2012.

Truckload common carriers include large national lines as well as regional carriers. The large national truckload carriers, who continue to gain market share at the expense of both regional carriers and private fleets, typically purchase trailers in large quantities with highly individualized specifications.

The US economy is expected to grow moderately in 2008 by 2.0% leading to increasing consumer confidence, higher interest rates and greater trucking activity. The truck segment is expected to perform moderately as pent-up demand by trucking companies had been met. Employment levels are expected to increase and profitability to recover in 2008. Real industry revenue is expected to increase by 3.8% and value added by 5.1%.

Sustained growth in the US economy in 2009 is expected to lead to all segments of this industry performing strongly. As such real industry revenue is expected to increase by 3.6% in 2009.

The outlook for 2010 and 2011 is also expected to be favorable, with demand mix of motor vehicle bodies growing moderately.

During the last year of the forecast period to 2012, continued increasing demand from all market segments is expected to result in industry revenue increasing by 2.0%.

Over the forecast period to 2012, employment levels are expected to grow, but not to the levels experienced during the peak in 1999. This is because the restructuring that took place during 2007 is expected to introduce new modus operandi during the expected growth period.

State and federal regulation of the size, safety features and configuration of truck trailers has led to increased demand for truck trailers meeting new regulatory requirements from time to time. However, no such changes in regulations are expected to impact on the truck trailer segment during the forecast period to 2012.

Manufacturers are expected to experience higher material costs as steel prices continue to remain relatively high in 2008. However, manufacturers can expect material related price increases from end-users.

Fuel price increases are expected to recede later in the forecast period, lifting cost constrains on smaller road freight operators who have not been able to pass the additional costs to the clients in the past.

Over the forecast period, industry revenue on average is expected to increase by 2.8% per annum and value added to increase by 2.7% per annum. Over the same period the US economy is expected to expand by 2.6% per annum.

Excerpts from ***Motor Vehicle Body Manufacturing in the U.S.***, IBISWORLD Industry Report, February 2008

33631 – Automobile Engine & Parts Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle gasoline engines, and engine parts, whether or not for vehicular use.

The major demand determinants include:

- The industry is affected by the state of the motor vehicle industry, as increased production of vehicles results in increased demand for automotive parts.
- Factors that determine demand include prices (which are determined largely by wage, material and equipment costs and exchange rates), incomes (which determine affordability for parts in the aftermarket), scrapping rates, motor vehicle usage activity, interest rates, product quality and product innovation.

The life cycle stage of this industry is mature:

- The industry is considered mature as demand for its products are well established and the industry has experienced significant mergers and acquisitions. Furthermore, new technology such as fuel cells has been developed based on a response to regulatory and statutory requirements.
- Full scale fuel technology implementation is not likely to occur in the next five years. However, hybrid technology will become the norm in the next five years.
- No new geographical locations planned for the industry.
- Ownership is predominantly private and will remain so in the future.

Industry Outlook

Motor vehicle production volumes are expected to increase from 2009 onwards and as such demand for engines is also expected to increase. However, the magnitude of increase in motor vehicle production volume is expected to remain moderate with around 12 million units being built by 2013. The forecast is underpinned by the assumption that the Big Three (General Motors, Ford and Chrysler) successfully restructure their operational cost base early in the forecast period. In addition, the medium and heavy truck segment is expected to drive strong demand for heavy duty engines over the forecast period.

Foreign competition in the US market will continue to challenge American automotive parts producers as they attempt to comply with worldwide sourcing strategies of vehicle manufacturers. Imports are expected to occupy around 35% of the domestic market over the forecast period to 2013. Exports are expected to grow at a moderate rate after the first year of the forecast period as technology developed in the US is transformed to products for applications in economies around the world, which would then contribute towards a balance of trade of this industry's products. A moderate increase in exports is forecast for 2009, followed by weaker growth in exports in 2010 and 2011. Over the forecast period, exports are expected to expand at an annualized rate of 1.5%, while imports are expected to expand at a rate of 2.3%.

During the forecast period to 2013, industry revenue is expected to return to its growth pattern with innovative engines being offered in the market driving domestic demand.

Industry profitability is expected to remain threatened as the major motor vehicle assemblers continue to demand price decreases. As a consequence, industry innovation and productivity is expected to be highlighted in all major players' plans. Some price relief from inputs such as steel is expected as the US international Trade Commission (ITC) revoked anti-dumping and countervailing duty orders on corrosion resistant steel from Australia, Canada, France and Japan.

Other Issues

Stringent regulations on the reduction of engine noise and zero emissions of vehicles built in the future are expected to change the nature of the products produced by this industry.

Several automakers have revealed vehicles utilizing hybrid technology and have announced introduction dates within this decade. In 2004, California's zero emission vehicle law was to

take effect, calling for 10% of an automaker's vehicles sold in that state to be zero-emission vehicles. However, the Bush Administration has pledged support to a group of vehicle manufacturers opposed to the Zero Emission Vehicle mandate. The mandate looked to legally oblige manufactures to increase the fuel economy of their models whilst developing clean fuel technologies, however the Justice Department has deemed the move as beyond the legislative capabilities of an individual state authority. The state of California claims that air pollution acts do not have to be federal decisions; however this is apparently not the case with regards to fuel economy legislation.

A compromise has been reached, where the Californians have adopted the Partial Zero Emission Vehicle (PZEV) standard. Tailpipe emissions are to be reduced to near zero levels, with emissions of hydrocarbons reduced by 89% compared with previous models and oxides of nitrogen reduced by 93% . Tailpipe emissions meeting the Super Low Emission Vehicle (SULEV) standard must have zero evaporative emissions from the fuel tank and fuel system and emission control equipment guaranteed for 15 years or 150,000 miles.

However, in late 2007 Congress passed a new energy legislation that provides a federal fuel economy standard that offers environmental benefits. The EPA has determined that a unified federal standard of 35 miles per gallon will deliver significant reductions in greenhouse gas emissions from cars and trucks in all 50 states, which would be more effective than a partial state-by-state approach of 33.8 miles per gallon.

According to EPA regulators, the two primary approaches for reducing greenhouse gas emissions from vehicles are increasing the fuel economy of vehicles and reducing the greenhouse gas emissions associated with their fuel. The energy bill signed in late 2007 addresses both approaches by increasing the fuel economy from vehicles to 35 miles per gallon, an increase of 40%, as well as increasing the amount of renewable fuel used to 36 billion gallons, nearly a five-fold increase.

Automakers hope that fuel cell powered vehicles will satisfy these new requirements and increasing worldwide environmental demands, but many technological and cost hurdles must be overcome before they are feasible alternatives to combustion engine vehicles. It is predicted that automotive fuel-cell use will advance rapidly after 2012 and that fuel-cell annual volumes will hit the million-unit level by around 2020. This new technology will open several opportunities for suppliers. Since fuel cells add a lot of weight, there will be increased demand for lightweight materials. Fuel-cell technology eventually may replace or eliminate many internal combustion components. Meanwhile, engine makers are expected to concentrate on developing diesel/petrol-electric hybrid engines.

According to a report by Automotive Industry Data, sales in the US of around 2 million diesel powered sport utility vehicles and pickup trucks and an increase of 50,000 cars a year is predicted. Currently, diesel powered cars and light trucks account for a negligible 0.3% of US sales, and according to the report the market share will rise to 6% for diesels in 2010. Diesel engines have been popular in Europe, where the oil refiners have introduced low polluting diesel fuel, which the US refiners are reluctant to follow without government assistance or incentives.

E-commerce development within the industry is expected to intensify. It is fast becoming a critical factor that will determine the eventual success or failure of the firms competing in this industry. Quick response strategies and the sharing of information within the supply chain are critical for success.

Car engine parts could soon be imbedded with radio frequency identification tags (RFID). The technology can track products from assembly line to end user, making recalls and restocking more efficient.

Major players would be seeking to expand their presence in the growing Chinese and Indian automotive market throughout the forecast period.

Over the forecast period, industry revenue is expected to experience an annualized expansion of 2.2%, value added by 2.1%, while the US economy is expected to expand at an annualized rate of 2.7%.

Excerpts from ***Automobile Engine & Parts Manufacturing in the U.S.***, IBISWORLD Industry Report, February 2008

33632 – Automobile Electric & Electronics Manufacturing in the U.S.

This industry comprises establishments primarily engaged in (1) manufacturing vehicular lighting and/or (2) manufacturing and/or rebuilding motor vehicle electrical and electronic equipment. The products made can be used for all types of transportation equipment (i.e., aircraft, automobiles, trains, ships). Establishments include tier one manufacturers, who source from tier two manufacturers. The ultimate users of products manufactured by this industry are vehicle assemblers.

The major demand determinants include:

- Major factors impacting on this industry are the state of motor vehicle production in the US and trading partners, and demand from the aftermarket.
- Determinants of demand for new vehicle production include vehicle prices (which are determined largely by wage, material and equipment costs and exchange rates), incomes which determine affordability, interest rates, manufacturers' incentives (such as zero-financing and cash-back), scrapping rates, product quality and product innovation.
- Determinants of demand for the aftermarket include incomes, the size and age of the vehicle fleet as well as the number of miles driven.
- Another factor influencing the demand for electric and electronic equipment content is the demand for high technological content in new motor vehicles.

The life cycle stage of this industry is mature:

- The industry is considered mature as demand for its products is cyclical and the industry has experienced significant mergers and acquisitions. Furthermore, any new technology introduced is gradual as motor vehicles can last significant length of time.

- Although China provides a bright prospect for exports, further penetration of the Chinese market is likely through joint venture and technology transfer arrangements.
- Industry competition is intense as motor vehicle assemblers seek constant price reductions from tier one suppliers.

Industry Outlook

During the 2008-2012 period, Motor Vehicle Electrical and electronic Equipment Manufacturing Industry revenue is expected to rise from $22393.2 million in 2008 to $24875.7 million in 2012. This represents an annualized increase of 2.6%, about the same as IBISWorld's average real US GDP growth rate forecast over the same period.

Due to motor vehicle assemblers exercising strong purchasing power, and the competitive pressures of parts suppliers to increase such suppliers' manufacturing capabilities, the unit price of parts will continue to decline in the future. The future profitability of the Original Equipment segment will depend upon, among other things, its ability to continue to reduce its per unit costs and maintain a cost structure, internally and with its suppliers, that will enable it to remain cost-competitive. It is likely, that some of the present activities of the OE suppliers would be transferred to countries with lower cost bases, such as in Eastern Europe and Mexico.

It is expected that the major auto assemblers will work with part suppliers in a collaborative manner to reduce unit costs and achieve efficiencies.

Foreign competition in the US market will continue to challenge American automotive parts producers as they attempt to comply with worldwide sourcing strategies of vehicle assemblers. Imports are expected to occupy 38.5% of the domestic market by 2012 as more parts are sourced from China.

Exports are expected to grow throughout the forecast period with China offering the best prospects in the longer run. The Chinese market combines a high rate of economic growth with one of the lowest vehicle density rates. With plans to substantially expand its vehicle product capacity, China has the potential to become one of the world's largest vehicle markets. US exports of automotive parts have been limited by 20 to 30% tariff rates and restrictive local content requirements. However, with China's entry into the World Trade Organization, opportunities are expected for US motor vehicle electrical and electronic parts manufacturing industry to increase exports. China has reduced tariffs on automobile parts to an average of 10% and tariffs on automobiles to 25% in 2006. China has also agreed to phase out quotas on automobile imports and to eliminate local content requirements.

A more robust US economy in 2008 and the introduction of new products required through regulations such as that covering Tire Pressure Monitoring Systems (which are required to be phased in from 2004 onwards until 2007), will increase demand for this industry's products, and as such industry domestic demand is expected to increase moderately by 2.0% in 2008. Imports are expected to also increase during this period, growing by 1.2%. Exports are expected to increase as orders from Canada, Mexico, Europe and Asia (including Japan) increase. As a consequence real industry revenue is expected to increase by 2.5% in 2008.

For the final three years of the forecast period to 2012, industry revenue is expected to increase by 3.1% as domestic demand increases by 3.0% and exports increase by 3.1% in 2009; by 2.9% in 2010 following a strong export profile; by 1.8% in 2011; and by 2.8% in 2012.

In an effort to prevent child deaths through accidental strangulation, the Federal Government through its agency, the National Highway Traffic Safety Administration, will require all automakers to install safer switches on power windows by 2008.

Delphi is expected to retain its electrical and electronic business/product lines as it comes out of bankruptcy protection sometime in 2007.

In December 2005, Denso announced plans to invest $185 million in the expansion of its manufacturing facilities in Maryville. The new facility will produce automotive electronic components and is expected to provide around 500 new jobs by 2010, and to add approximately 220,000 square feet to the company's existing 1.5 million square feet of manufacturing space. Recruitment is not expected until late 2007. Construction of the new facility is scheduled to begin in early 2007 with building completion targeted for the end of 2007. Production is expected to start in spring 2008.

Research conducted by Frost & Sullivan suggests that the European market for obstacle sensing technologies is likely to increase substantially to reach EUR194.7 million in 2015 at a compound annual growth rate of around 26.7%, albeit from a small base of EUR15 million in 2005.

Excerpts from ***Automobile Electric & Electronics Manufacturing in the U.S.***, IBISWORLD Industry Report, February 2008

33633 – Automobile Steering & Suspension Components Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle steering mechanisms and suspension components (except springs).

The major demand determinants include:

- Major factors impacting on this industry are the state of motor vehicle production in the US and demand from the aftermarket.
- Determinants of demand for new vehicle production include vehicle prices (which are determined largely by wage, material and equipment costs and exchange rates), incomes which determine affordability, interest rates, scrapping rates, product quality and product innovation.
- Determinants of demand for the aftermarket include incomes, the size and age of the vehicle fleet as well as the number of miles driven. Vehicle ownership increased in the last five years and there is every indication of continued growth in the automotive aftermarket. This is a positive indication of continued growth in the automotive parts industry.

The life cycle stage of this industry is mature:

- The industry is considered mature as demand for its products is cyclical and the industry has experienced significant mergers and acquisitions.
- Although new technology such as steer-by-wire has been developed, there has not been a surge in the use of this technology throughout the car industry owing to its present relatively high costs.
- Ownership has remained predominantly private.

Industry Outlook

Foreign competition in the US market will continue to challenge American automotive parts producers as they attempt to comply with worldwide sourcing strategies of vehicle assemblers. Imports are expected to occupy around 33% of the domestic market over the forecast period to 2012. Exports are expected to decline during the early stages of the forecast period as the US dollar strengthens.

Strong demand for motor vehicles in China is expected to drive the major players to either export or produce under joint venture agreements.

US exports to Mexico are threatened if a free-trade deal is rectified between Mexico and Japan as Japanese exporters of automotive parts to Mexico pay on the average 17% on sales to the Mexican market. In addition temporary tariff-free status for inputs used by Mexico- based Japanese manufacturers.

The electronic and technological content of vehicles' steering wheel assemblies is expected to expand, largely driven by consumer demand for greater vehicle performance, functionality and affordable convenience options as well as increasing stringent regulatory standards for automotive safety. Electronic integration, which generally refers to products which combine integrated circuits, software algorithms, sensor technologies and mechanical components within the vehicle, are expected to allow assemblers to achieve substantial reductions in weight and mechanical complexity, resulting in easier assembly and enhanced vehicle performance.

New technology such as drive-by-wire applications is expected to be introduced in the next five years. Examples include steer-by-wire systems, damping-by-wire and roll-by-wire systems.

Delphi Corporation and the Torrington automotive unit of Ingersoll-Rand's Engineered Solutions have agreed to jointly develop and market steering systems for light-duty vehicles worldwide. The annual global market for these products is estimated to be approximately $4.5 billion. Under the terms of the agreement, Torrington will design and manufacture intermediate shafts for integration with steering columns produced by Delphi's Steering Systems Division. The alliance will build on the respective strengths of Delphi and Torrington in steering product technology, geographic coverage and customer base. Each company will contribute engineering and manufacturing expertise in its specific competencies, while Delphi will be responsible for overall integration, Torrington will form a separate product group that will be dedicated to serving the needs of the alliance. In addition to combined operational efficiency and driver performance requirements. Torrington technology efforts will focus on meeting safety standards

while supporting the vehicle manufacturers' drive for continuing cost and productivity improvements at the assembly site.

Industry domestic demand is expected to grow by 2.4% in 2008, as the motor vehicle market improves leading to increased production volumes. Imports are expected to grow by 2.5%, while exports are expected to increase by 3.8% as exports to Canada, Mexico and Asia are increased following strong demand from those countries. As a consequence, industry revenue is expected to increase by 2.5%. Employment levels are expected to decline in 2008 as Delphi further restructures and recovers from bankruptcy protection.

A resurgent motor vehicle market in 2009 and 2010 is expected to lead to industry revenue increasing by 3.1 and 2.5% respectively in those years. Industry revenue is expected to continue to increase in 2011 and 2012 by 1.9% and 1.4% respectively as domestic demand increases along with exports.

Industry profitability is expected to remain threatened as the major motor vehicle assemblers continue to demand price decreases. As a consequence, industry innovation and productivity is expected to be highlighted in all the major players plans. In addition, the larger players will be looking to shed non-performing business units and acquire businesses that provide synergies to existing profitable businesses.

Another factor that may contribute to lower profitability in the short-term is the price of inputs that have significant steel content such as front control arms, rear control arms, steering knuckles, rear knuckles, steering gear housing, spindle carriers, tie rods and brackets. The cost of these products has been rising due to the accelerating price of steel and these Tier 2 suppliers will be seeking to renegotiate contracts with Tier 1 operators.

In a bid to deal with pressures from auto assemblers to reduce prices of components, the major players are increasingly adopting a strategy to manufacture low value and labor intensive components in low-cost nations such as in Eastern European countries, while keeping high-value technical operations in the West.

Supply chain management processes within the industry are expected to intensify. It is fast becoming a critical factor that will determine the eventual success or failure of the firms competing in this industry.

As the evolution of the automotive parts industry into a community of world suppliers continues in this century, the ability of Tier One suppliers to adapt to the mentioned trends will determine their fate. The reduced ranks of Tier One suppliers will shrink further. Many will go out of business, be acquired, or channel their resources into other business ventures. The survivors will be divided into three categories: very large, diversified multinational Tier One parts manufacturers with major financial resources; smaller, specialty Tier One firms with partners in strategic global markets; and lower-tier suppliers.

Over the forecast period, 2008 to 2012, industry revenue is expected to increase by 2.3% per year and value added by 2.3% per year. Over the same period the US economy is expected to expand by 2.7% per year.

Excerpts from ***Automobile Steering & Suspension Manufacturing in the U.S.***, IBISWORLD Industry Report, November 2007

33634 – Automobile Brakes Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle brake systems and related components.

The major demand determinants include:

- Significant factors affecting this industry are the state of motor vehicle production in the U.S. and demand from the aftermarket.
- Determinants of demand for new motor vehicle production include vehicle prices (which are determined largely by wage, material and equipment costs and exchange rates), incomes which determine affordability, interest rates, scrapping rates, product quality and product innovation. Vehicle production slowed dramatically late in 2005 and declined in 2006.
- Demand for Original Equipment (OE) by the automotive assemblers is directly related to the volume of vehicles produced at any given time.
- Demand from the aftermarket is in the form of replacement parts and compete with imports.
- Determinants of demand for the aftermarket include incomes, the size and age of the vehicle fleet as well as the number of miles driven. Vehicle ownership has been growing at a rate of 1.1% per year and is most likely to keep growing in the next five years.

The life cycle stage of this industry is mature:

- The industry is considered mature as demand for its products is cyclical and the industry has experienced significant mergers and acquisitions.
- In addition there have been no new geographical locations to contribute towards another growth cycle.
- Any development of new technology has been in response to competitive pressures.
- Industry revenue and value added growth rates have been low.

Industry Outlook

Foreign competition in the US market will continue to challenge American automotive parts producers as they attempt to comply with worldwide sourcing strategies of vehicle assemblers. Imports are expected to occupy around 26% of the domestic market over the forecast period to 2012. Exports are expected to grow in the first three years the forecast period as technology developed in the U.S. is transformed to products for applications in mature economies around the world.

The electronic and technological content of vehicles' brake assemblies is expected to expand, largely driven by consumer demand for greater vehicle performance, functionality and affordable convenience options as well as increasing stringent regulatory standards for automotive safety. Electronic integration, which generally refers to products which combine integrated circuits, software algorithms, sensor technologies and mechanical components within the vehicle, are expected to allow assemblers to achieve substantial reductions in weight and mechanical complexity, resulting in easier assembly and enhanced vehicle performance.

The prospects of this industry are linked to motor vehicle production in the US, demand from the aftermarket, which is determined by motor vehicle activity and real household disposable incomes. Prospects for export markets are determined by the attractiveness of the product, scope of operations, exchange rates and global motor vehicle production volumes and activity.

The US economy is expected to grow relatively moderately in 2008, leading industry domestic demand to increase by 4.0% fuelled by pent-up demand for new models. Imports are expected to increase by 4.5% as products, particularly for the aftermarket are increasingly sourced from low-cost producing countries and exports by 2.0% in the same year. The export growth is primarily linked to the expanding motor vehicle population of China in particular and Asia in general. As a consequence, real industry revenue is expected to increase by 3.5% in 2008.

Demand for Original Equipment as input to domestic motor vehicle production and increasing household disposable incomes leading to greater demand from the aftermarket will be the primary determinants for the expected increase in domestic demand in 2009. Imports are expected to grow by 5.0%, while exports are expected to increase by 3.5% as exports to Canada, Mexico and Asia increase. As a consequence, industry revenue is expected to increase by 4.5% in 2009.

Expected strong growth in the U.S. economy in 2010 and 2011 is expected to lead to strong increases in industry domestic demand and exports; therefore industry revenue is expected to increase by 2.7% and 1.5% in 2010 and 2011 respectively. In the last year of the forecast period to 2012, industry revenue is expected to increase by 1.3% as demand from the aftermarket strengthens and exports increase by 0.5%

Industry profitability is expected to remain threatened as the major motor vehicle assemblers continue to demand price decreases. As a consequence, industry innovation and productivity is expected to be highlighted in all the major players' plans. In addition, the larger players will be looking to shed non-performing business units and acquire businesses that provide synergies to existing profitable businesses.

It is most probable that true collaboration between component suppliers and auto assemblers will prevail so that available technology can be provided to auto assemblers at a fair price. It is most unlikely that price will remain the sole criteria for supplier selection.

As the evolution of the automotive parts industry into a community of world suppliers continues in this century, the ability of Tier One suppliers to adapt to the mentioned trends will determine their fate. The reduced ranks of Tier One suppliers will shrink further. Many will go out of

business, be acquired, or channel their resources into other business ventures. The survivors will be divided into three categories: very large, diversified multinational Tier One parts manufacturers with major financial resources; smaller, specialty Tier One firms with partners in strategic global markets; and lower-tier suppliers.

The ability to maintain its standing as a worldwide leader in the twenty-first century will depend not only on its ability to comply with the specific requirements of its current clients - an increased foreign presence, finely honed core competencies, and the assumption of traditional functions normally handled by vehicle manufacturers - but also on its ability to deal successfully with larger domestic and international factors.

Over the period ending 2007 to 2012, on average industry revenue is expected to expand by 2.7% per annum and value added by 2.9%, while the US economy is expected to expand by 2.7% per annum.

Excerpts from ***Automobile Brakes Manufacturing in the U.S.***, IBISWORLD Industry Report, December 2007

33635 – Automobile Transmission & Power Train Parts Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle transmission and power train parts.

The major demand determinants include:

- The state of the domestic motor vehicle manufacturing industry and demand from the aftermarket are the two key factors impacting this industry.
- Determinants of demand for new vehicle production include vehicle prices (which are determined largely by wage, material and equipment costs and exchange rates), incomes that determine affordability, interest rates, scrapping rates, product quality and product innovation.
- Determinants of demand for the aftermarket include incomes, the size and age of the vehicle fleet as well as the number of miles driven.

The life cycle stage of this industry is mature:

- The industry is considered mature as demand for its products is cyclical and the industry has experienced significant mergers and acquisitions. Furthermore, new products have been developed based on a response to regulatory and statutory requirements.
- By offering sophisticated systems and modules rather than individual components, suppliers have assumed many of the design, engineering, research and development and assembly functions traditionally performed by the vehicle manufacturers. In doing so, some new technology has been introduced.
- There has been little shift into new geographical locations.

Industry Outlook

Foreign competition in the U.S. market will continue to challenge American automotive parts producers as they attempt to comply with worldwide sourcing strategies of vehicle assemblers. Imports are expected to occupy around 32% of the domestic market over the forecast period to 2012.

The electronic and technological content of vehicles' transmission and powertrain assemblies is expected to expand, largely driven by consumer demand for greater vehicle performance, functionality and affordable convenience options as well as increasing stringent regulatory standards for automotive safety. Electronic integration, which generally refers to products which combine integrated circuits, software algorithms, sensor technologies and mechanical components within the vehicle, are expected to allow assemblers to achieve substantial reductions in weight and mechanical complexity, resulting in easier assembly and enhanced vehicle performance.

Delphi has announced that it will supply three major under-vehicle technologies for the next generation of General Motors' popular GMC Savan and Chevy Express full-size vans. The following technologies will be applied:

- Full float single and dual rear wheel axles featuring improved NVH (noise, vibration, and harshness) performance and enhanced durability. The axles, which will be incorporated in GM's heavy-duty 3500-series vans, include advanced gear designs to meet the requirements.
- An all new, stiffer boxed frame that will deliver enhanced torsional rigidity. The new frames accommodate a wide range of powertrain, drive axle, and suspension characteristics, contributing to improved braking performance, structural durability, and energy management.
- Spicer Lite, Aluminum 1350/1410 series driveshafts.

This driveshafts are expected to be quieter in operations and should also result in lower maintenance costs for the end user. If successful, these units will result in increased sales for Delphi as well as raising the possibility of more supply contracts for other vehicles.

Delphi will also provide hybrid electrical powertrain systems technologies for two Ford hybrid vehicle platforms. Delphi will provide the battery pack systems and cooling systems for the 2008 Ford Fusion Hybrid and Mercury Milan Hybrid vehicles.

In 2008, industry demand for transmission and power train products are expected to increase by a stronger 5.2% as motor vehicle production recovers in the US. It is therefore expected that industry revenue will increase by 5.8% in 2008. New technologies developed by domestic suppliers are expected to make these technologies available to world markets and exports are expected to increase significantly by 4.5% in 2009. Together with a strong domestic demand profile, industry revenue is expected to increase by 3.5% in 2009. Industry revenue growth rate in 2010 and 2011 is then expected to level to around 2.0% and 0.8% respectively as the US economy weakens. Industry revenue is then expected to increase by 3.2% in 2012 to $38,458 million.

Industry profitability is expected to remain threatened as the major motor vehicle assemblers continue to demand price decreases. As a consequence, industry innovation and productivity is expected to be highlighted in all the major players' plans. In addition, the larger players will be looking to shed non-performing business units and acquire businesses that provide synergies to existing profitable businesses.

E-commerce development within the industry is expected to intensify. It is fast becoming a critical factor that will determine the eventual success or failure of the firms competing in this industry.

As the evolution of the automotive parts industry into a community of world suppliers continues in this century, the ability of Tier One suppliers to adapt to the mentioned trends will determine their fate. The reduced ranks of Tier One suppliers will shrink further. Many will go out of business, be acquired, or channel their resources into other business ventures. The survivors will be divided into three categories: very large, diversified multinational Tier One parts manufacturers with major financial resources; smaller, specialty Tier One firms with partners in strategic global markets; and lower-tier suppliers.

Transmission and powertrain component manufacturers are expected to reap from the growing trend in All-Wheel-Drive (AWD) vehicles. By 2008 there will over 110 models offering AWD in the US market alone. More and more automakers are making it available to their customers, and an increasing number of concept cars at automobile shows with AWD demonstrate that automakers intend to broaden its application in the future.

Ford plans to introduce a variety of new transmissions within the next five years, including the new TorqShift five-speed automatic transmission, set to go on sale in F-Series Super Duty trucks, a new continuously variable transmission (CVT) and new front-wheel-drive and rear-wheel-drive six-speed automatic transmissions. Ford claims that these new transmissions will improve fuel economy by 4 to 8 percent, which will become very popular with motorists if successful.

Ford and GM have declared that half of their vehicles will use a six-speed automatic transmission by 2008 to enable both players to take advantage of the opportunity to win back share in this sector. The main competitive advantage of the six-speed transmission will be an improvement in the fuel consumption, estimated at around 4.0% compared to a traditional four-speed automatic transmission.

Currently, consumers are seeking better fuel economy as petrol prices rise. Furthermore, regulations on emissions and fuel consumption have become stricter. These factors, combined with the fact that less than 1% of vehicles in North America currently have six-speed automatic transmission, mean that there is significant potential for vehicles with six-speeds.

Overall over the forecast period, industry revenue is expected to expand at an annualized rate of 3.0% and value added by 3.4%, while the US economy is expected to increase by an annualized 2.7%.

Excerpts from ***Automobile Transmission & Power Train Manufacturing in the U.S.***, IBISWORLD Industry Report, November 2007

33636 – Automobile Seating & Interior Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing motor vehicle seating, seats, seat frames, seat belts, and interior trimmings.

The major demand determinants include:

- Major factors impacting on this industry are motor vehicle production levels in the U.S. and demand from the aftermarket.
- Determinants of demand for new vehicle production include vehicle prices (which are determined mostly by wage, material and equipment costs and exchange rates), incomes which determine affordability, interest rates, scrapping rates, product quality and product innovation. Determinants of demand for the aftermarket include incomes, the size and age of the vehicle fleet as well as vehicle activity such as the number of miles driven.
- During 2001, some 17.1 million new motor vehicles were sold amidst a slowing economy. This was made possible by the large motor vehicle manufacturers offering zero-financing deals late in the year to stimulate demand. Component manufacturers were required by the assemblers to reduce prices and share the burden of these zero-financing deals.

The life cycle stage of this industry is mature:

- The industry has experienced significant number of mergers and acquisitions as motor vehicle assemblers demand lower prices. For instance, Visteon offloaded its seat manufacturing business when Ford decided to award a seating contract to Johnston Controls rather than to Visteon.
- Overall there have been little new geographical locations with the traditional motor vehicle manufacturing centre around the Great Lakes dominating the number of large establishments.
- However, the industry has introduced some new products in seating and car interiors.

Industry Outlook

Foreign competition in the U.S. market will continue to challenge American automotive parts producers as they attempt to follow worldwide sourcing strategies of vehicle assemblers. Imports are expected to occupy around 20% of the domestic market over the forecast period to 2012. Exports are expected to grow throughout the forecast period as technology developed in the US is transformed to products for applications in mature economies around the world.

The electronic and technological content of vehicles' seat and interior trim assemblies is expected to expand, largely driven by consumer demand for greater vehicle performance, functionality and affordable convenience options as well as increasing stringent regulatory standards for automotive safety. Electronic integration, which generally refers to products which combine integrated circuits, software algorithms, sensor technologies and mechanical components within

the vehicle, are expected to allow assemblers to achieve substantial reductions in weight and mechanical complexity, resulting in easier assembly and enhanced vehicle performance.

Exports are expected to grow in 2008 as parts manufacturers continue to deliver to growing automotive markets in neighboring countries such as Mexico. As the Mexican economy improves and Mexico phases out and eliminates all automotive tariffs, US automotive parts should experience strong growth in Mexico. In the coming years, US producers of replacement parts should benefit from supplying the Mexican market for the increasing number of US made models now being sold in Mexico. Furthermore, with the depreciation of the US dollar, exports are expected to grow in 2008.

Industry domestic demand is expected to grow by 5.2% in 2008. Imports are expected to grow by 2.1%, while exports are expected to increase by 2.6% as exports to Canada, Mexico and Asia increase. As a consequence, industry revenue is expected to increase by 5.6%.

Continued growth in economic activity in the US in 2009 is expected to lead to moderate increases in industry domestic demand and exports; therefore industry revenue is expected to increase by 2.2% and 2.9% in 2009 and 2010 respectively. For the final two years of the forecast period to 2012, industry revenue is expected to increase by 2.5% and 2.2% respectively as exports and domestic demand continue to grow.

Industry profitability is expected to remain threatened as the major motor vehicle assemblers continue to demand price increases. As a consequence, industry innovation and productivity is expected to be highlighted in all the major players' plans. In addition, the larger players will be looking to shed non-performing business units and acquire businesses that provide synergies to existing profitable businesses.

E-commerce development within the industry is expected to intensify. It is fast becoming a critical factor that will determine the eventual success or failure of the firms competing in this industry.

As the evolution of the automotive parts industry into a community of world suppliers continues in this century, the ability of Tier One suppliers to adapt to the mentioned trends will determine their fate. The reduced ranks of Tier One suppliers will shrink further. Many will go out of business, be acquired, or channel their resources into other business ventures. The survivors will be divided into three categories: very large, diversified multinational Tier One parts manufacturers with major financial resources; smaller, specialty Tier One firms with partners in strategic global markets; and lower-tier suppliers.
There are opportunities for interior trim manufacturers who have the ability to demonstrate high quality products. This is because the domestic auto assemblers have resolved to make vehicles with higher quality interiors. The three local assemblers, General Motors, Ford and Chrysler, see better interiors as an important way to fight back against the perception of higher Japanese and European quality.

Johnson controls expects its sales in China to increase to over $1.8 billion in 2008 as it increases manufacturing operations in China. Johnson Controls first entered into China in 1996 with the

launch of joint-venture plant in Beijing and has 12 sites in China, including nine manufacturing plants.

Kongsberg Automotive, a global supplier of automotive seat comfort products, has acquired Milan Seating Systems (MSS) from Intier Automotive Seating of America Inc. Based in Milan, Tennessee, MSS is a major supplier of head restraints and arm rests to the North American automotive industry. It employs 290 people and is expected to generate annual sales of about $60 million. Milan's facility specializes in foam in place and rotary molding, as well as cut and sew and urethane foam molding.

Collins & Aikman Corporation, which is in bankruptcy protection in the U.S. and selling off its European business to a Lear joint venture, but has still won a deal to supply Chrysler with a significant portion of the interior systems on a future platform of vehicles scheduled for 2008.

By 2008, both Delphi and Visteon are expected to have exited from this industry as they offload loss making product lines either to General Motors and Ford respectively or sell these product lines to its competitors.

Overall, industry revenue and value added are expected to expand at annualized rates of 3.1% and 2.7% respectively, while the US GDP is expected to expand by 2.7% per year.

Excerpts from ***Automobile Seating & Interior Manufacturing in the U.S.***, IBISWORLD Industry Report, December 2007

33637 – Automobile Metal Stamping in the U.S.

This industry comprises establishments primarily engaged in manufacturing motor vehicle stampings, such as fenders, tops, body parts, trim, and molding.

The major demand determinants include:

- The major factor impacting on this industry is the state of motor vehicle production in the US and to a lesser extent demand from the aftermarket.
- Determinants of demand for new vehicle production include vehicle prices (which are determined largely by wage, material and equipment costs and exchange rates), incomes which determine affordability, interest rates, scrapping rates, product quality, cost of motor vehicle operations and product innovation.

The life cycle stage of this industry is mature:

- The industry is considered mature as demand for its products is cyclical and the industry has experienced significant mergers and acquisitions.
- Furthermore, the industry has developed little new technology and has been privately owned for a long period of time.
- However, there has been some outsourcing of the stamping activity by the major motor vehicle assemblers.

- Location of operators of this industry has followed historical trends with little new geographical locations in the last ten years.

Industry Outlook

Motor vehicle production volumes are expected to increase from 2009 onwards and as such demand for motor vehicle stamping is also expected to increase. However, the magnitude of increase in motor vehicle production volume is expected to remain moderate with around 12 million units being built by 2013. The forecast is underpinned by the assumption that the Big Three (General Motors, Ford and Chrysler) successfully restructure their operational cost base early in the forecast period. In addition, the medium and heavy truck segment is expected to drive strong demand for metal stamping activity over the forecast period.

Research and development in improving vehicle safety is expected to accelerate over the forecast period. A number of innovations are being tested and will be utilized in the future. For instance, a specially designed hood that 'pops-up' in an accident to help protect against pedestrian head injuries has been developed by engineers at Ford Motor Company in Germany. The mechanical hood system is featured on a demonstration Ford Focus, which also has a modified fender and redesigned headlights that help absorb the impact in a pedestrian accident, reducing leg injuries. The hood system uses sensors to detect contact between a pedestrian and the leading edge of the hood or fender. The hood is then moved back and up using either spring pressure or pyrotechnically by gas injectors. The fender uses multiple density foams and a structural undertray designed to support the legs of a pedestrian and to reduce impact forces. The headlight surround is also redesigned to avoid the chance of glass breaking and reducing the risk of cuts to the pedestrian's legs. The vehicle was designed following accident research using the latest computer technology at Ford's research center in Aachen, Germany. The preliminary findings of crash tests using the vehicle are being analyzed and will be shared with engineers working on future generations of Ford cars.

The expected outcome of such accelerated research and development is for enterprises that can demonstrate innovative safety related products would tend to perform better than other enterprises that do not partake in research and development.

The motor vehicle stamping industry is set to meet the challenges in developing new systems to work with different materials. With safety, noise absorption, exhaust cleaning, and passenger ergonomic systems adding about 440 pounds of indispensable weight to a vehicle, continued improvement of the technology in those areas will become an even more critical factor in vehicle weight reduction as traditional options dwindle. Steelmakers have been developing the ultralight steel auto body, or body-in-white, which weighs about 25% less than traditional bodies and costs less to make than do bodies made from traditional materials and composites. The impact of these new systems and new materials would make industry products more attractive to motor vehicle manufacturers in North America and the rest of the world.

Rising scrap steel prices are expected to be arrested over 2009 as domestic capacity to produce steel increases. However, owing to the increases in scrap steel prices and inability to pass on these increases by smaller players to the larger Tier 1 component producers and auto assemblers,

some casualties are expected. However, most of the larger automotive suppliers buy their steel though long-term contracts, leaving only a small percentage of their steel buy open to the volatile fluctuations in the scrap steel market.

However, in the middle of December 2006, the US International Trade Commission (ITC) revoked anti-dumping and countervailing duty orders on corrosion resistant steel from Australia, Canada, France and Japan, though it left orders in place on imports from Germany and Korea until the next review in 2011.

Cyclical pressure is expected to weaken the growth in motor vehicle production in 2010 when industry domestic demand is expected to increase by only 2.0%. For 2011, industry revenue is expected to strengthen again following expected increases in motor vehicle production in the US, after which industry revenue is expected to grow less strongly in 2012 and 2013.

Employment over the period end-2008 to end-2013 is expected to contract at an annualized rate of 0.3%, owing to increased productivity with value added per employee increasing from $119,238 in 2009 to $132,032 in 2013.

Future growth for this industry will continue to be technology-driven as a result of increasingly stringent safety, fuel efficiency, and environmental regulations as well as increasing demand for enhanced passenger comfort systems.

As the evolution of the automotive parts industry into a community of world suppliers continues into the twenty-first century, the ability of Tier One suppliers to adapt will determine their fate. The reduced ranks of Tier One suppliers will shrink further. The survivors will be divided into three categories: very large, diversified multinational Tier One manufacturers with major financial resources; smaller, specialty Tier One firms with partners in strategic global markets; and lower-tier suppliers.

Pressure from General Motors and Ford is expected to intensify for independent operators during the first two years of the forecast period as the two largest assemblers cut capacity to overcome declining market share. Ford is expected to close seven assembly plants and axe 25,000 to 30,000 jobs by 2008. Similarly, heavy losses at General Motors are expected to lead to further reduction in manufacturing capacity.

In June 2006, General Motors announced its plans to invest $48 million in its foundry in Bedford, Indiana, to produce transmission cases and converter housings for the $170 million investment in producing six-speed automatic transmissions in its Ypsilanti, Michigan plant. The investment covers partial facility renovation, including more energy-efficient melting furnaces; as well as new machinery, equipment and tooling to support the additional volume. Facility renovations began in July 2006. Increased production of rear-wheel drive six-speed cases is already under way, and production will begin on front-wheel drive six-speed cases later in 2006. Full volume for both RWD and FWD cases is expected by late 2008. By 2010 GM is planning to produce three million six-speed transmissions a year.

Over the forecast period 2009 to 2013 revenue is forecast to grow at an annualized rate of 2.1% to $27,257 million in 2013. Over the same period, value added is to expand at an annualized rate of 2.2% to $12,734 million in 2013. Over the same period, the US economy is expected to grow at 2.7% per year.

Excerpts from ***Automobile Metal Stamping in the U.S.***, IBISWORLD Industry Report, February 2008

33639 – AC, Exhaust, Air Bag, Wheel, & Other Parts Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing and/or rebuilding motor vehicle parts and accessories (except motor vehicle gasoline engines and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, motor vehicle transmission and power train parts, motor vehicle seating and interior trim, and motor vehicle stampings).

The major demand determinants include:

- Major factors impacting on this industry are the state of motor vehicle production in the US, demand from the aftermarket and regulations pertaining to emission controls, which has developed a strong interest in catalytic converters.
- Determinants of demand for new vehicle production include vehicle prices (which are determined largely by wage, material and equipment costs and exchange rates), incomes which determine affordability, interest rates, manufacturers' incentives (such as zero finance, cash-back and employee based pricing), scrapping rates, product quality and product innovation.
- Determinants of demand for the aftermarket (replacement parts) include incomes, the size and age of the vehicle fleet as well as the number of miles driven.

The life cycle stage of this industry is mature:

- The industry is considered mature as demand for its products is cyclical and the industry has experienced significant mergers and acquisitions. Any new products with a technological edge that are developed is due to regulatory pressures such as environment related regulations.

Industry Outlook

Automobile manufacturers are seeking competitive quotes from suppliers and demand significant stage price reductions over a product's life cycle. As a consequence of the major automobile manufacturers' strong purchasing power, and the competitive pressures of parts suppliers to increase such suppliers' manufacturing capabilities, the unit prices of parts will continue to decline in the future. The future profitability of the industry will depend upon, among other things, its ability to continue to reduce its per unit costs and maintain a cost structure, internally and with its suppliers, that will enable it to remain cost-competitive. In the longer-term, it is likely, that some of the present activities would be transferred to countries with lower cost bases,

such as in East Europe, Brazil and Mexico, and as such industry employment is only expected to rise at an annualized rate of 0.2% to 2012.

Foreign competition in the US market will continue to challenge American automotive parts producers as they attempt to comply with worldwide sourcing strategies of vehicle assemblers. Imports are expected to occupy around 53% of the domestic market over the forecast period to 2012. Exports are expected to grow throughout the forecast period as technology developed in the US is transformed to products for applications in mature and developing countries around the world.

A real threat to exports to the growing Mexican market is the free-trade deal between Japan and Mexico. Japanese car and component manufacturers have been pushing for a deal for several years, arguing that they suffer because of preferential access enjoyed by North American exporters through NAFTA, and by European exporters through a free-trade deal struck between the European Union and Mexico.

Industry domestic demand is expected to increase by 3.5% in 2008 as the US motor vehicle manufacturers restructure and consolidate model offerings. Exports are expected to grow by 2.3% as exports to Canada, Mexico, Europe and Asia (including Japan) increase. As a consequence, industry revenue is expected to increase by 2.9% in 2008.

Sustained growth in the US economy and the strengthening of trading partners' economies in 2009 is expected to lead to relatively strong increases in industry domestic demand and exports; therefore industry revenue is expected to increase by 2.0% in 2009. A stronger world economy in 2010 is expected to increase sales during the period leading to industry revenue increasing by 2.7% and by 3.4% in 2011, before weakening due to cyclical pressures in 2012 to expand by 1.5%.

Development of Supply Chain Management processes within the industry is expected to intensify. It is fast becoming a critical factor that will determine the eventual success or failure of the firms competing in this industry.

As the evolution of the automotive parts industry into a community of world suppliers continues into this century, the ability of Tier One suppliers to adapt to the mentioned trends will determine their fate. The reduced ranks of Tier One suppliers will shrink further. Many will go out of business, be acquired, or channel their resources into other business ventures. The survivors will be divided into three categories: very large, diversified multinational Tier One parts manufacturers with major financial resources; smaller, specialty Tier One firms with partners in strategic global markets; and lower-tier suppliers.

Delphi is increasingly selling its products to non-vehicle manufacturer customers and believes that there are additional non-VM markets. The possibility of growth in non-VM markets, which include medical, computer, telecommunications, military, aerospace, home appliances, agriculture, watercraft and construction, is fueled by its ability to leverage existing automotive technologies.

In 2005, Delphi announced a new strategic alliance with Belgium-based Bosal Group to offer complete exhaust systems for the global OE market. The Bosal Delphi Complete Exhaust Systems will be a non-equity based alliance and offer global solutions for any vehicle program and all current fuel options. Delphi will provide expertise in manifold and catalyst, including manifold converters, diesel converters and spinforming technology; and Bosal will specialize in the design and development of intermediate mufflers and tailpipes.

Demand from China for automotive components is expected to steadily rise as vehicle sales are expected to increase significantly throughout the forecast period, thereby creating a significant market for original equipment and aftermarket products.

A study conducted by Insurance Institute for Highway Safety, concluded in late August 2003 that side airbags that include head protection are reducing deaths by about 45% among drivers of passenger cars struck on the near (driver) side. This implies the demand for air bags is expected to increase significantly as motorists demand more protection.

International Truck and Engine Corporation has awarded Tenneco a contract to supply exhaust after-treatment systems for its entire line of medium-duty diesel vehicles with International engines, launching in 2007. The contract is Tenneco's first in North America for diesel emission control technologies for medium-duty commercial vehicle segment. The development and engineering for International Truck and Engine Corporation is being done at Tenneco's engineering centre in Grass Lake, Michigan and production will take place at its exhaust manufacturing facility in Seward, Nebraska.

Over the forecast period to 2012, industry revenue is expected to increase on average by 2.5% per annum and value added by 2.6% per annum, a weaker growth rate than the US economy (2.7%) over the same period.

Excerpts from ***AC, Exhaust, Air Bag, Wheel & Other Auto Parts Manufacturing in the U.S.***, IBISWORLD Industry Report, December 2007

Fabricated Metal Products and Machinery Manufacturing

Definition

NAICS Codes

33211 – Forging and Stamping in the U.S.
33231 – Plate Work and Fabricated Structural Product Manufacturing
33232 – Ornamental and Architectural Metal Products Manufacturing
33281 – Coating, Engraving, Heat Treating and Allied Activities
33291 – Metal Valve Manufacturing
33351 – Metalworking Machinery Manufacturing
33361 – Engine, Turbine, and Power Transmission Manufacturing

Recommended Research Filters

When marketing to this industry, we recommend that Chester County target companies within the following parameters.

Sales:	$10m minimum
Employment:	100 minimum
Geographic Scope:	National
Growth:	10% in sales or employment (over two years)
Events:	Predictive events such as executive change, merger/acquisition, new markets, new products/services, new contract, and IPO.

Fabricated Metal Products and Machinery Universe	
Companies within geographic scope	65,303
With 100+ employees and $10m+ sales	1,978
With growth and/or events	615

Industry Importance Factors

Most of the significant site location factors revolve around labor and workforce for the manufacturing industry. It would follow then that available education and training in disciplines, such as various engineering, precision manufacturing, and robotics, would be paramount. Worker compensation costs and unemployment insurance costs are usually of significant concern as well since much of manufacturing production work is done with complex machinery.

Other critical site location factors considered by the manufacturing industry include energy dependability, access to intermediate manufactured products, and the cost to transport goods. All are important factors are most manufacturing intensive industries. Reliable and high-quality energy is a far greater consideration than the cost of energy since disruptions are very costly in lost production time and machinery configurations. Also, easy access to production inputs

become more important as the number of parts and required components grows. Many manufacturers have a high number of parts to track and assemble.

For the most part, quality of life and business incentives are not one of the main site location criteria. The quality of life consideration will become more important if top level executives are locating with the new site. Business incentives for locating a plant will only come into consideration at the end of a decision process. Also, incentives may have less of an impact on the overall decision since the capital investment required for the location of a manufacturing facility is very high. Construction costs, built space cost and availability are other site factors that deserve a mention as having importance for the manufacturing industry.

Labor Outlook

NAICS Code	Industry	1996 Jobs	2006 Jobs	2016 Jobs	1996-2006 Change	2006-2016 Change
3321	Forging and Stamping	139,300	113,300	86,000	-19%	-24%
3323	Architectural and Structural Metals	369,800	414,500	437,200	12%	5%
3328	Coating, Engraving, and Heat Treating	158,400	149,000	119,700	-6%	-20%
3329	Misc. Fabricated Metal Products	317,700	287,000	251,500	-10%	-12%
3335	Metalworking Machinery Mfg.	280,000	202,600	165,800	-28%	-18%
3336	Engine, Turbine, and Power Transmission Equipment Mfg.	112,700	100,400	83,900	-11%	-16%

Source: U.S. Bureau of Labor Statistics, Monthly Labor Review, November 2007

33211 Forging and Stamping in the US

This industry comprises establishments engaged in 1) manufacturing forges; 2) manufacturing metal custom roll forming products; and 3) manufacturing metal stamped and spun products (except automotive, can, coins); and 4) manufacturing powder metallurgy products.

Demand determinants include:

- The majority of product demand is related to automotive (passenger cars and trucks), aircraft and aerospace, construction equipment, pumps and valves, agricultural equipment and other industrial markets (a proportion of demand is from other manufacturing businesses). The value of products to customers derives from the need to construct buildings, automobiles and trucks. The conditions affecting demand include price, consumer tastes, preferences, quality (including advanced engineering and manufacturing capability), and the ability to meet delivery requirements.

- The demand for forging and stamping is largely linked to production levels in customer markets in those sectors. Changes in current and future business expectations influence product demand. Customers respond to worsening economic conditions by reducing inventories and reducing production, which translates into reductions in purchasing activity.
- Market castings are used in virtually all industrial/manufacturing applications (Machinery Manufacturing sub sector and the Transportation Manufacturing sub sector). More than 80% of manufactured goods and capital equipment in the US use castings as engineered components (or rely on castings for their manufacture).
- In the majority of product markets, more than 50% of projected sales are pursuant to customer supply arrangements with major automobile manufacturers operating in the US (some businesses have international operations). The manufacturing of components used in automobiles is driven by the normal peaks and valleys associated with the automotive industry.
- Declining motor vehicle production over the past five years has had an adverse impact on the demand for most metal castings in the US. Another demand change more or less affecting the industry has been the shift from iron to aluminum castings for automotive applications (demand for nonferrous metal foundries rather than ferrous metal foundries).
- Demand for forging and stamping has reflected economic growth in the US economy as a result of increased capital spending, public sector infrastructure projects, and demand for residential and building construction. The market for residential and nonresidential construction castings has remained strong over the past five years, primarily because of suburban residential construction spending in the US.

The life cycle stage of this industry is mature:

- Over the past five years, industry revenue and market growth rates have been slow and low. With poor conditions in most customer markets, sales revenue generated in most product segments has decreased over the past five years.
- As market growth has slowed and customers have changed their purchasing habits, firms in this industry have had to reduce prices which has impacted on firm profitability. Many firms in this industry have gone bankrupt or are operating with thin margins.
- Reduced capital expenditure has impacted on the demand for aftermarket products. The demand for aftermarket parts has increased as capital expenditure and the value of machinery and equipment industries has declined.
- Under this scenario, customers appear to be spending less on new machinery and equipment, but are trying to extend the useful life of existing machinery and equipment - as a result of cost and competitive pressures in customer industries.
- The increasing trends of outsourcing, consolidation and globalization have influenced the economic performance of businesses operating within the US Forging and Stamping Industry. In particular, structural changes in the transportation industry have had a major impact on the economic performance of firms in this industry.
- Original Equipment Manufacturers have been reducing the number of suppliers that may bid for awards and contracts. As a result of this development, OEMs are focusing on the development of long-term, sole source relationships with suppliers.

- As customers introduce new product designs requiring less forging and stamping, foundries will be forced to respond by contracting production and raising productivity. Smaller firms in this industry will be forced to consolidate with larger firms or close down.

Industry Outlook

IBISWorld forecasts that industry sales will reach $33.18 billion by the end of 2012. Over the five year period this is an average annualized change of 2%, which is slightly lower than that experienced in the previous five years (4.7%). IBISWorld believes that sales will not be as volatile as observed between 2002 and 2007, where growth ranged from -13.2% to around 12%. With predictions of a stable economy and GDP growth of around 3% over the period, IBISWorld expects that industry revenue growth will remain steady, ranging between 1.5% and 2.5%.

In 2008, IBISWorld expects that a relatively positive year will be experienced for the Forging and Stamping industry in the US, with growth of 1.9%. Sales growth is expected to continue to occur in the aerospace and power generation markets, with additional sales likely to occur as a result of a stronger Motor Vehicle Body and Trailer Manufacturing industry.

Reductions in growth for Metal Valve Manufacturing will dampen growth prospects for Forging and Stamping in 2009; however IBISWorld still expects that growth will achieve around 2.2% for the year, and reach sales of $31.27 billion. Engine, Turbine, and Power Transmission Equipment Manufacturing is expected to continue its solid performance throughout 2009, where strong demand for forged products is likely to result. In addition, the All Other Fabricated Metal Product Manufacturing industry will show signs of improved growth, and too, increase demand for forged and stamped products - particularly within the small arms, ordnance, ammunition, and the fabricated pipe fittings segments of that industry.

IBISWorld expects that between 2010 and 2012 industry growth will be back around the 2% mark, with growth of 1.9%, 2% and 2.1% for the respective years expected. Many downstream demand industries will show positive signs, particularly in the automotive segments as major car manufacturers (eg. General Motors and Ford) restructure themselves. Growth in the Heavy duty truck manufacturing industry is also likely to translate solid sales opportunities to the Forging and Stamping industry. IBISWorld expects that a growth decline of 2.8% in `Metal Value Manufacturing' for 2010 will result in only a small, negative, impact on industry revenue; and by year-end 2012, industry revenue is expected to reach $33.18 billion.

IBISWorld analysis suggests that the outlook for the Forging and Stamping Industry is primarily dependent upon downstream demand from the industrial sector of the economy. The majority of product demand is related to industrial markets. The value of products to customers derives from the need to construct buildings, transportation products and other industrial products. The conditions affecting demand include price, consumer tastes and preferences. IBISWorld believes that market stamping and forgings are used in virtually all industrial applications (Machinery Manufacturing sub sector and the Transportation Manufacturing sub sector). More than 80% of manufactured goods and capital equipment in the US use castings as engineered components (or rely on castings for their manufacture).

Over the forecast period, IBISWorld expects that enterprise numbers will increase on average 1% per annum. Increases in enterprise numbers over the outlook period will be largely due to better economic conditions and some prospective areas within the automotive market. With market maturity and industry consolidation apparent, on average, establishment numbers are also expected to increase marginally of around 1% per annum, to around 2,800 by 2012.

IBISWorld forecast that imports from Canada, Mexico, Brazil, India, and China will provide strong competition for domestic firms in the Metal Forging and Stamping Industry (an annualized average growth of 9.7%). Although spot steel prices in the US are now declining, steel imports will continue to increase. To compete, the domestic steel industry, while still fragile, is being strengthened by business restructuring and industry consolidation. Faced with continued international competition from producers of ferrous and nonferrous metal castings, the US steel industry has responded by modernizing processes in an attempt to increase productivity and lower manufacturing costs. Despite efforts to reduce costs and improve their competitive positions, firms in the Forging and Stamping Industry in the US will continue to face strong pricing pressures in the short and medium term.

As international trade increases over the outlook period, companies within the industry will increasingly compete on the basis of cost leadership as prices and margins within the industry contract. As firms attempt to generate an adequate return on assets employed, industry structure will become more conducive to mergers and acquisitions (in an attempt to lower cost structure through economies of scale). In this environment firms will try to obtain low operating costs in all market segments in which they operate (businesses survive on the competitiveness of their products). IBISWorld believes that these cost advantages will arise from economies of scale, technological systems and design, and cheaper access to raw materials. Companies that can achieve cost advantages and command industry-average prices will earn above average profits in the period ahead.

Factors impacting on the positive growth performance over the outlook period are:

- Oil and gas - A factor supporting growth is the stabilization in the value of construction put into place in the gas market. This stabilization is associated with the projected expansion in demand for natural gas, particularly supplying gas to the expanding electricity generating market. In addition, trade in gas is projected to prompt the start-up of two major US/Canadian cross-border pipeline projects. Petroleum pipeline construction reached record levels during the past five years and is expected to record further strong growth during the first half of the outlook period as world oil prices encourage the opening of new fields. Some contraction in petroleum pipeline construction late in the outlook period is forecast but the level of activity is projected to remain well above that recorded over the preceding five years.
- Automotive - A continued decline in automobile sales over the short term in the US, and an expansion of long-term supply contracts between OEMs and their suppliers will restrict distribution channels in the outlook period. Over the short and medium term, greater price and product competition will develop as industry growth rates force firms to fight for market share. US auto parts makers are shifting their loyalties to Japanese automakers and away from the domestic Big Three. According to industry sources, US automakers continue to press suppliers for price concessions, and suppliers are responding by providing less support.

While US automakers focus on cost, Pacific Rim countries seek lower costs, but balance that with quality and technology.

- Construction - The residential and nonresidential construction industry has enjoyed solid revenue growth given the vitality of the current economic expansion, but weaker homebuilding and sales will ease demand for pipe and pipe fittings over the short and medium term. However, home remodeling is a niche market, and is growing at a strong pace and generating additional demand for products and services in the US. At the corporate and industrial level, sales of iron foundry products are likely to slow in the years ahead given the expectations of shrinking corporate earnings due to a decelerating economy. Slow growth in corporate earning, low consumer confidence, and geopolitical uncertainty will curtail investment by firms' within the construction, automotive, and agricultural industries.
- Faced with continued international and domestic competition from producers of forgings and stampings, the US Forging and Stamping Industry will respond by modernizing manufacturing processes in an attempt to increase productivity. Despite successful efforts to reduce costs and to improve their competitive positions, the Forging and Stamping Industry will continue to face difficult market conditions and strong pricing pressures from international manufacturers. The need for firms within the industry to provide customers with single-point integrated systems on a global basis has also fueled industry consolidation and a move of offshore production.
- Research and Development - To remain competitive, industry sources have identified the following six issues as important sources of competitive advantage: improving casting technologies; developing new casting materials; developing higher strength and lower weight castings; improving quality controls; reducing casting defects; and among others developing castings that meet increasingly stringent environmental regulations (federal and state). In addition, customers will introduce new product designs requiring less forging and stamping. Foundries will be forced to respond by contracting production and raising productivity. Smaller firms in this industry will be forced to consolidate with larger firms or close down.

Excerpts from ***Forging and Stamping in the U.S.***, IBISWORLD Industry Report, August 2007

33231 – Plate Work and Fabricated Structural Product Manufacturing in the U.S.

Firms in this industry are primarily engaged in one or more of the following manufacturing activities: 1) fabricated structural metal products; 2) pre-fabricated metal buildings, panels and sections; and 3) metal plate work products. Accounting for two-thirds of industry revenue, fabricated structural metal products such as boat and ship, bridge, concrete reinforcing bars and fabricated bar joists. A less substantial product segment is pre-fabricated metal products which include metal carports, dwelling or homes, farm buildings and warehouses. Metal plate work activities involve cutting, punching, bending, shaping and welding in order to produce product like airlocks, bins, pipe, smoke stacks and tunnel lining.

Demand determinants include:

- The majority of product demand is directly related to residential and nonresidential construction markets (a proportion of demand is from manufacturing businesses). The value

of products to customers derives from the need to design and construct residential and nonresidential buildings. The conditions affecting demand include price, preferences, global economic conditions, and construction activity.

- Amongst other variables, the key demand determinants derived from the Construction sector include: growth in residential and nonresidential construction; growth in public infrastructure; fluctuations in residential expansions and additions to dwellings; need for repairs and maintenance work; growth in ship and boat building; and demographic factors such as population growth rates, population dispersion, rate of household formation.
- Demand from the nonresidential construction sector is highly sensitive to national and regional economic conditions. From time to time, it has been adversely affected in various parts of the country by unfavorable economic conditions, low use of manufacturing capacity, high interest rates, high vacancy rates and unavailability of financing.
- Many of the industry's customers are in the construction business - due to cyclical construction demand and the increase in construction during the spring and summer months, sales are generally higher in the third and fourth quarters rather than in the first and second quarters of the fiscal year.

The life cycle stage of this industry is mature:

- Industry revenue (3.5% p.a.) and value added (2.4% p.a.) have grown at a similar rate to that of US GDP over the past five years. As a comparative indicator, US GDP has been growing at an average rate of around 3% per annum.
- The industry's growth generally has slowed to below that of the overall economy as most products manufactured in this industry are heavily dependent on the cyclical growth in downstream construction markets and are subject to growing competition from international manufacturers. However, strong demand for structural steel products and plate work over the past few years have raised growth and profitability levels for many firms.
- With price competition and falling profit margins enterprise and establishment numbers in the industry have changed very little. If anything some of the larger firms in the industry will attempt to merge and acquire some of the smaller players within the industry - strategy to increase product and market spread.

Industry Outlook

IBISWorld forecasts that industry revenue will reach around $40.8 billion over the five years to 2012. Over this five year period, this represents an average annualized growth of 2.4%, which is in generally line with projections in the GDP growth rate.

Revenue growth over the outlook period is forecast to range between 2% and 3%. Cyclical and seasonal fluctuations in the downstream demand industries such as the construction (e.g. housing and non-residential) and manufacturing industries will largely influence demand for products in the Plate Work and Fabricated Structural Product Manufacturing industry.

Over the immediate outlook period, the current problem in the US subprime mortgage market has compounded the downturn in economic activity in the housing construction sector. This will likely to have a negative impact on industry sales growth. As highlighted above, housing

construction activity has contracted significantly to date this year (20.9% decline on an annualized basis). Problems in the housing market are worsening because of rising mortgage defaults (particularly in subprime loans), and this is resulting in more homes being released into an already oversupplied market. In addition, the availability of housing finance is being restricted as lending institutions are tightening lending standards and increasing interest rates (to factor in higher credit risk).

As a result, the pre-fabricated metal product segment of the industry is likely to be negatively impacted. This segment of the industry supplies products that add (or lead) to the design and construction of houses, home expansions and improvements and other dwelling associated construction activities. The single family housing or home construction sector has been hit the hardest in the current subprime mortgage crisis, and this sector is a key downstream demand industry. The consensus view of housing industry experts is that the housing recovery will not occur until at least the first half of 2008.

However, IBISWorld believes that the longer-term and overall outlook of the Plate Work and Fabricated Structural Product Manufacturing industry remains favorable. Positive factors such as the expected increased spending in key construction markets that this industry serves such as the non-residential building sectors, and infrastructure-related (e.g. bridge and tunnel) construction sectors will provide support. The Federal Highway Administration in the US estimates that nearly one-third of the US's 578,000 bridges need to be repaired or replaced. This presents tremendous opportunities for firms in the Plate Work and Fabricated Structural Products Manufacturing Industry to engage in repair and maintenance activities, as well as new construction projects.

Over the five year period to 2012, IBISWorld forecasts that average GDP growth will be around 2.7% and interest rates to remain relatively stimulatory to finance construction activities. With respect to the key downstream demand industries identified, IBISWorld expects that all of them will experience positive growth over the outlook period. This includes the housing construction industries, as growth in activity will gather momentum in the later period of the outlook period. The bridge and tunnel construction, and ship building and repair and boat building industries are expected to be the major contributors to industry's revenue growth.

Employment growth in the industry has been flat in recent years. IBISWorld expects this trend to continue, with a decline in an average annualized growth rate of 0.02% over the outlook period). Although product demand is expected to increase, one of the most important factors determining employment change in this occupation is the implementation of labor-saving machinery. In order to remain competitive, by improving quality and lowering production costs, many firms are adopting newer technologies, such as computer-controlled machine tools and robots.

The number of establishments and enterprises are forecast to grow marginally; at average annualized growth rate of approximately 0.7%. IBISWorld believes that US industry exports will continue to increase; reaching $1.9 billion (representing an average annualized growth rate of 6.0%) over the outlook period. Exports are forecast to represent around 4.7% of industry revenue by 2012. The growth in US exports will be largely driven by increased demand from

countries where construction activities are high (i.e. India and Saudi Arabia) and improved competitiveness or productivity of US manufacturers.

On the other hand, IBISWorld believes that the volume of imports will also experience growth, with an average annualized growth rate of 11.0% forecast over the outlook period. Canada will continue to play a dominant role in imported products to the US, as it currently holds a 41.8% market share of total industry imports to the US. Growing Asian regions like China and Korea, with other countries such as Sweden and Spain are also expected be sources of imports.

Excerpts from ***Plate Work and Fabricated Structural Product Manufacturing in the U.S.***, IBISWORLD Industry Report, October 2007

33232 – Ornamental and Architectural Metal Products Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing one or more of the following: 1) metal framed windows (i.e., typically using purchased glass) and metal doors; 2) sheet metal work; and 3) ornamental and architectural metal products. The major products manufactured in this industry are sheet metal products.
Demand determinants for this industry include:

- The majority of product and market demand is directly derived from commercial, industrial, and residential construction activity. The value of products derives from the need to provide access to buildings (front and rear).
- The conditions affecting demand for Ornamental and Architectural Metal Products include price, service, quality, consumer tastes, and preferences (as a result of changing building codes and trends in architecture).
- The construction and renovation of residential, commercial, and industrial property is a primary determinant of demand. Amongst other variables, the factors affecting demand from the Construction sector include: growth in residential and nonresidential construction; growth in public infrastructure; fluctuations in residential expansions and additions to dwellings; need for repairs and maintenance work; and demographic factors such as population growth rates, population dispersion, rate of household formation.
- In comparison to residential construction, demand from the nonresidential construction industry is more sensitive to national and regional economic conditions. From time to time, the nonresidential construction sector has been adversely affected by unfavorable economic conditions, low use manufacturing capacity, high interest rates, high vacancy rates and financing. Generally, demand for construction is cyclical, and is affected by the factors mentioned.
- In general, building products are seasonal in nature, with poor weather during the winter months usually reducing the level of building activity in both the home-building and home improvement markets. Because of the underlying seasonality of the building construction industry and the fact that these products tend to be installed in the latter stages of construction, sales historically have been higher in the third and fourth quarters than in the first two quarters of the year.

The life cycle stage of this industry is mature:

- In the past five years IBISWorld estimates that industry revenue grew by an average rate of around 4% per annum, and industry value added by 2.4% per annum. After poor operating conditions between 2000 and 2003, the industry has recovered and observed some favorable grow rates in revenue and value added.
- Although industry revenue growth over the past five years has been above that of the overall economy, this industry is in a mature life cycle stage. Most products manufactured in this industry are heavily dependent on the cyclical growth in downstream construction markets and are subject to growing competition from international manufacturers. There has been good growth in downstream industries since 2004.
- With price competition and falling profit margins enterprise and establishment numbers in the industry have changed very little. If anything some of larger firms in the industry have attempted to merge and acquire some of the smaller players within the industry - a strategy to increase product and market spread.

Industry Outlook

IBISWorld forecasts that industry sales will reach $50.17 billion by the end of 2012. Over the five year period this is an average annualized change of 3%, which is a slight deterioration over the previous five years average annual rate (4%). IBISWorld believes that the sales growth between 2004 and 2007 will flow to industry growth for the outlook period. Growth over the outlook period is not expected to be as volatile as that observed since 2000 - which ranged from 11.1% to 7.7% - as US consumer and business confidence is expected to remain fairly solid. IBISWorld believes that the growth will be relatively stable, ranging between 2% and 4%.

2007 is expected to show the greatest revenue growth over the outlook period, with growth of 3.62%, reaching sales of approximately $40.4 billion. Sales growth is expected to continue to occur through the manufacturing and industrial building construction market, as well as through professional services such as structural steel erection contractors.

IBISWorld expects that 2008 will show the greatest revenue growth over the outlook period, with growth of 3.3%. Over the year, 4.6% growth in commercial building construction, 3.9% growth in institutional building construction, as well as increasing demand for professional service contractors will raise industry turnover to an expected $44.81 billion. In addition, IBISWorld believes that demand for ornamental and architectural metal products will be higher due to gains in consumers' disposable income. For 2008, per capital disposable income is forecast to grow by 2.4%, which should translated to increased demand for most market segments, including new construction and maintenance and repair (construction).

Due largely to a more subdued construction market, industry turnover in 2009 and 2010 is not expected to grow as much as in the previous few years. For the two respective years, growth of 3.2% and 2.7% is estimated to occur, reaching revenues of $47.46 billion. As mentioned, the market for structural steel erection contractors will not be as strong as previous years, which will diminish potential growth for this industry. Despite this, IBISWorld expects that sales will continue to occur in the home remodeling market, as the continued aging of the housing stock

and the trend of improving home appearance will drive demand for ornamental and architectural metal products.

IBISWorld believes that growth in the final two years of the outlook period will be around 3% in 2011, and 2.7% in 2012. Revenue by year-end 2012 is expected to be approximately $50.17 billion, representing the 3% annualized growth over the five year period. Downstream demand industries are likely to be strong, as GDP growth remains solid at around 2.7%. Furthermore, per capita disposable income is also expected to remain high, which will fuel demand for ornamental and architectural metal products in residential and non-residential construction markets.

In the outlook period IBISWorld believes that companies within the industry will increasingly compete on the basis of cost leadership as declining aluminum prices fall, which is likely to reduce product prices. As import competition grows to around 3.2% of domestic demand and export revenue remain around 1.1% of industry revenue, industry structure will become more conducive to mergers and acquisitions. In this environment firms will try to obtain low operating costs in all market segments in which they operate (businesses survive on the competitiveness of their products). IBISWorld believes that these cost advantages will arise from economies of scale, technological systems and design, and cheaper access to raw materials. Companies that can achieve cost advantages, command industry-average prices, and create manufacturer-to-retailer relationships will earn above average profits in the period ahead.

Over the past decade, an increasing number of ornamental and architectural metal products have been sold through home center retail chains. IBISWorld estimates that approximately 20%-35% of the garage door market is sold through the home center channel of distribution. IBISWorld expects that into the outlook period, there will be a changing trend from the `do-it-yourself' consumer segment, to the rapidly growing `do-it-for-me' consumer segment.

IBISWorld forecasts that employment trends among the various machine setters, operators, and tenders within the Ornamental and Architectural Metal Products Manufacturing Industry will diverge over the outlook period. A decline in employment is projected for many machine tool operators, including cutting, punching, and press machine setters, operators, and tenders; and lathe and turning-machine tool workers as a result of a surge in retirements. However overall, within the outlook period IBISWorld believes that employment will increase by an average annual rate of 1.1%, and reach a total of 230,000 workers. Going forward job opportunities are expected to be stronger for sheet metal workers, reflecting both rapid employment growth and openings arising each year as experienced sheet metal workers leave the occupation (and retire). The Bureau of Labor Statistics indicates that the prospects are expected to be better for sheet metal workers in the construction industry than for those in manufacturing because construction is expected to grow faster than the manufacturing industries.

Excerpts from ***Ornamental and Architectural Metal Products Manufacturing in the U.S.***, IBISWORLD Industry Report, June 2007

33281 – Coating, Engraving, Heat Treating and Allied Activities in the U.S.

This industry comprises establishments primarily engaged in one or more of the following: 1) heat treating metals and metal products; 2) enameling, lacquering, varnishing metals and metal products; 3) hot dip galvanizing metals and metal products; 4) engraving, chasing, or etching metals and metal products (except jewelry; personal goods carried on or about the person, such as compacts and cigarette cases; precious metal products (except precious plated flatware and other plated ware); and printing plates); 5) power coating metals and metal products; 6) electroplating, plating, anodizing, coloring, and finishing metals and metal products; and 7) providing other metal surfacing services for trade.

The demand determinants for this industry include:

- Demand corresponds to industrial production in the manufacturing, as well as construction sectors.
- The industrial market reflects the growth of the manufacturing economy (the industrial market has been cyclical, experiencing higher growth rates during periods of economic expansion).
- Economic activity in the Manufacturing sector, in particular the Primary and Fabricated Metal Product Manufacturing sub sector has impacted demand. Lower than expected capital expenditures in customer industries have impacted industry growth.
- Changes in current and future business expectations in customer markets influence product demand by reducing or delaying capital expenditure. Customers respond to worsening economic conditions by reducing inventories and reducing production, which translates into reductions in purchasing activity.
- Changes in the level of economic growth, interest rates, and future financial and economic expectations also influence demand. The more income spent on automobiles, agricultural equipment, and aerospace products, the greater the demand for metal service equipment and machinery.
- This industry is not generally considered to be seasonal due to the breadth and diversity of markets served, although revenues can typically be lower in the first and fourth quarters due to seasonality in certain construction markets, particularly within the coating segment.
- Some key industries which historically have provided some indication of the potential demand include highway and transportation, power transmission and distribution, telecommunications and the level of quoting activity for regional metal fabricators. In general, growth in the commercial/industrial sectors of the economy generates new construction and capital spending which ultimately impacts demand.
- The age of capital equipment influences demand, as it encourages further investment or upgrading of capital equipment. If equipment ages, or is in need of repair, expenditure on metal treatment services is likely to increase as an alternative to the purchase of new capital equipment.
- As a result of being largely reliant on the economic fortunes of the industrial sectors, the demand for products in this industry may be, at times, affected by work stoppages, labor disputes, and slowdowns experienced by firms operating in the OEM sector.
- The industry continues to be driven by four primary trends: increased outsourcing of manufacturing processes by domestic manufacturers; shift by customers to fewer and larger

suppliers; increased customer demand for higher quality products and services; and industry consolidation.
- With a large percentage of manufacturing maintenance budgets and plant capital expenditures being spent on environmental compliance (with ever more strict EPA regulations), the need to reduce operations costs is important. As a result, the demand for outsourced coating and engraving services has increased.

The life cycle stage of this industry is mature:

- Changes in GDP, industrial production, and capacity utilization have corresponded to a reduction and/or expansion in the demand for services in this industry. Over the past five years, these variables have put downward pressure on this industry.
- Reduced capital expenditure has increased the demand for aftermarket products - in the past five years, customers have been spending less on new machinery and equipment, but have tried to extend the useful life of existing machinery and equipment.
- A factor impacting on industry growth in this period has been a reduction in home demand in the US as manufacturers move offshore. In particular, the American Auto Industry continues to outsource foundry and related services to offshore countries.
- Although hot dip galvanizing is considered a mature service industry, the industry is actively engaged in developing new markets through participation in industry trade shows, metals trade associations and presentation of technical seminars by its national marketing service team.
- Customers have been reducing the number of suppliers that may bid for contracts - focusing on the development of long-term, sole source relationships with suppliers. This has reduced the market demand for some firms in this industry.
- To become more competitive and respond to changing customer needs, the applications for coil coating are continuing to grow (industry data also suggest an increase in the value of product shipments in the past five years).
- As with most other primary and fabricated metals industries, profitability of firms has come under pressure. Increasing steel prices and lower prices received for manufactured products, along with higher health care costs have reduced profit margins.

Industry Outlook

Coating, engraving, heat treating and allied activities are used in virtually all industrial applications. Because of the wide array of demand points, future product and market demand will rely upon domestic economic conditions and general industrial demand for ferrous metal products in the automotive, construction, mining and oil field equipment, farm machinery, and municipal industries. In this context, GDP, industrial production, and capacity utilization, are all indicators of the overall health that the American economy will improve in the medium term.

The outlook for the Coating, Engraving, Heat Treating and Allied Activities industry is expected to be relatively steady. With positive growth rates expected in many downstream demand industries over the next five years, the Coating, Engraving, Heat Treating and Allied Activities industry will be affected favorably.

IBISWorld forecasts that industry sales will reach $27.56 billion by the end of 2012. Over the five year period, this is an average annualized change of 2.33% growth per year. This is approximately a 1.4 percentage point decline over the current performance period (2003-2007).

Between 2008 and 2009, the industry is expected to continue growing above 2%. By 2009 revenue is expected to reach $25.75 billion, with growth of 2.31% and 2.48% for the two years respectively. Continued growth in the building construction and manufacturing industries will help fuel the demand for services provided by this industry. Structural steel contractor's growth is expected to be 4% and 3.1% for the respective years, in addition, iron and steel pipe tube manufacturing is expected to grow above 3% in 2009. Both of these industries identified will require services from the Coating, Engraving, Heat Treating, and Allied Activities industry, which explain, in part, the growth for 2008 and 2009.

IBISWorld expects that in 2010 the industry will slow slightly, with growth of only 2.05%, with revenue expected to reach $26.7 billion. For the year, worse growth in key demand industries such as power boiler and heat exchanger manufacturing, and metal can, box, and other metal container manufacturing industries will minimize the growth potential that this industry could observe for 2010. Furthermore, only modest growth is expected in industries such as heavy gauge metal tank manufacturing (1.3%) and iron and steel pipe and tube manufacturing (0.1%). Overall, the 2.05% in growth for 2010 can be largely attributable to the 3% economic growth and sustained construction activities in the US.

IBISWorld expects that in 2011 and 2012, the industry will grow by 2.53% and 2.29% respectively, reaching $27.56 billion. A major reason why industry growth is expected to increase for the two years is due to stronger income growth as the economy continues its growth of around 3%. This will fuel demand for construction products in downstream markets. Despite the rise in percentage growth, it is expected that the industry will grow at a slower rate than economic growth. Moderate increases are expected in the manufacturing markets such as heavy gauge metal tank manufacturing and other metal container manufacturing.

In the outlook period, companies will compete on the basis of cost leadership as prices and margins are expected to fall, as the industry structure will be conducive to mergers and acquisitions. Firms will try to obtain lower operating costs in all market segments in which they operate (businesses survive on the competitiveness of their quotes). These cost advantages will arise from economies of scale, technological systems and design, and cheaper access to raw materials. Companies that can achieve cost advantages and command industry-average prices will earn above average profits in the period ahead (good to strong cash flows and growing return on capital).

Over the forecast period, IBISWorld expects that enterprise numbers will increase on average 0.04% per annum. Once again, continued industry consolidation is estimated to be the key reason for low growth in enterprise numbers. This is also true for establishment growth, as average annual growth is expected to be just below 0.3% per annum.

Furthermore, over the outlook period IBISWorld forecasts that employment numbers in the industry will decline (0.6%), albeit at a slower rate than the previous five years (1.37%). It is

anticipated that because of the continued increase in industry turnover over the forecast period, employment numbers will fall at a slower rate than that of the previous five years; and by 2012 there are expected to be 124,221 workers. The continued reduction in employment numbers will likely be due to productivity gains through increased use of computer-controlled machines. Productivity gains are expected to result from the increased use of computer-controlled machine tools and new technologies, such as high-speed machining, which will reduce the time required for machining operations. The introduction of machinery and equipment will allow for fewer workers to accomplish the same amount of work. Companies operating in the industry will be forced to cut costs and improve capital productivity in light of growing price pressures across customer industries.

From a product perspective, industry analysis shows that the adoption of new materials in customer industries will affect the development of the industry. For example, over the past five years technologies have been developed which are revolutionizing the world car parts industry. Industry sources note that these technologies have changed the car parts industry by improving the performance and durability of component casting. New coating technology (e.g. combining aluminum and zinc) is said to protect metal casting equipment up to ten times longer than present coatings. As these technologies develop further, the types and requirements of firms operating in the Coating, Engraving, and Heat Treating Industry will change accordingly. Such technologies could in fact reduce the demand for metal coating, engraving and heat treating service by slowing the cycle between applications.

Excerpts from ***Coating, Engraving, Heat Treating and Allied Activities in the U.S.***, IBISWORLD Industry Report, April 2007

33291 – Metal Valve Manufacturing in the U.S.

Firms in this industry manufacture fabricated metal products (except forgings and stamping, cutlery and handtools, architectural and structural metals, boilers, tanks, shipping containers, hardware, spring and wire products, machine shop products, turned products, screws, and nuts and bolts). Industrial valves manufactured in this industry include angle valves, ball valves, butterfly valves, gas cylinder valves, fire hydrant valves, gas valves, pressure control valves, safety valves, and solenoid valves. Plumbing fittings manufactured in the industry include antiscald bath and shower valves, backflow preventors, cocks, drains, and plumbing, faucets, flush valves, plumbing fittings and couplings, shower heads, stopcock drains, supply line assemblies.

Demand determinants for this industry include:

- The demand for metal valves is linked to production levels in customer markets. As a result, business activity in industrial sectors affects product demand. Product demand is driven by expenditure on residential and nonresidential construction, agriculture, automotive, and aerospace machinery.
- Amongst other variables, the key demand determinants derived from the Construction sector include: growth in residential and nonresidential construction; growth in public

infrastructure; fluctuations in residential expansions and additions; need for repairs and maintenance work; demographic factors such as population growth rates, dispersion, and household formation.

- Determinants of demand from industrial businesses include: business expenditure on plant and equipment; the age of the capital equipment in businesses; exchange rate changes; and customer demand for products manufactured or processed by firms using metalworking machinery and equipment.
- The purchase of new machinery and equipment is also influenced by the cost of new equipment, taxation rates, capital allowances and depreciation, the cost and selling price of second hand equipment, and the cost of repairs and maintenance to existing equipment.
- In other market segments changes in the level of economic growth, interest rates, and future financial and economic expectations also influence product demand. Customers respond to worsening economic conditions by reducing inventories and reducing purchasing activity.
- Replacement sales are strongest in those areas where the installed base of products is largest. The trade-off between repair versus replacement, and the likelihood of increased efficiency and greater environmental acceptability of replacing old with new drive replacement sales. The replacement market is less cyclical and is affected by wear and tear, leading customers to accelerate replacement of products which might otherwise be deferred.

The life cycle stage of this industry is mature:

- The industry's growth rate (in real/constant terms) has begun to slow as the market has reached saturation. The industry's growth rate (as depicted by revenue and value added) has slowed to a rate which is lower than that of the overall manufacturing sector.
- IBISWorld analysis shows that changes in GDP, industrial production, and capacity utilization in customer industries have corresponded to a reduction and/or expansion in the demand for products in this industry in the past decade.
- Characteristic of a mature industry structure, there has been an increase in import competition (from lower cost countries) as industry revenue has fallen.
- The effect of a general economic slowdown in the US manufacturing sector over the past three to five years has reduced customer expenditure patterns (manufacturers' expenditures fell from $150.3 billion in 1999 to $115 billion in 2006). This was compounded by the events of September 11th, and the economic uncertainty after it.
- As revenue and value added within the industry stabilized (growing only marginally - less than 1% per annum), the number of players entering the industry or expanding their establishment numbers have remained flat. There has been increasing merger and acquisition activity, as industry players have exited the industry.

Industry Outlook

IBISWorld forecasts that industry sales will reach $24.41 billion by the end of 2012. Over the five year period, this is an average annualized change of 0.3% per year; slightly lower than that of the previous five years. As observed through the average annualized change, it is expected that the Metal Valve Manufacturing industry is expected to slow over the outlook period.

According to the Valve Manufacturers Association of America, manufacturers are cautioned that they should prepare for a recession that is likely to start in mid-2008 and continue until 2010. As observed, the Valve Manufacturers Association of America mentions that the moderately strong growth in the metal valve sector for 2005 and 2006 will likely be followed by a distinct slowing in 2007. Revenue growth is estimated to fall 1.6% in 2007, to $24.08 billion. Demand in industries such as major appliance manufacturing, power boiler and heat exchanger manufacturing, and plumbing and heating equipment manufacturing are all forecast to fall into the immediate outlook period. As a result, revenue is expected to slow. Falls in such downstream demand are estimated to be partly offset by increased demand for building and construction. Overall, these increases and decreases in downstream demand will reduce revenue by around 0.6 percentage-points from 2006 into the outlook period. Despite this, there is still a belief within many organizations that growth in sales of valves are expected in markets such as, water/wastewater, power generation, refining, and petrochemicals.

In accordance with indications from the Valve Manufacturers Association of America, IBISWorld expects that between years 2008 and 2010, revenue growth will fall to low levels, experiencing rates of 0.3%, 0.1% and 0.3% per year respectively, and reach $24.27 billion by the end of 2010. Downstream industries are expected to slow significantly during this period which will damage sales growth for metal valve manufacturers. Continued growth in imports over this period will make it difficult for domestic manufacturers to compete against lower priced goods from markets such as China, Japan and Germany. Furthermore, falling domestic demand growth is expected to contribute to the declines in revenue for the metal valve manufacturing industry over this three year period.

In 2011 and 2012, IBISWorld expects that the Metal Valve Manufacturing industry will grow by 0.5% and 0.1%, to reach sales of approximately $24.41 billion. Growth in international demand will help domestic producers increase revenues, as it is expected that exports will continue to grow. Regions like Asia-Pacific and Western Europe are expected to increase demand, and domestic operators are expected to take advantage of these opportunities. With an expected lackluster domestic market, IBISWorld forecasts that industry consolidation will grow significantly, and larger organizations will undergo a transformation in which revenues will increase as they expand their domestic and global reach.

Over the forecast period, IBISWorld expects that enterprise numbers will decline on average by 0.4% per annum. Decreases in enterprise numbers throughout the forecast period, except 2010, will be largely due to increased industry consolidation, reduced revenue, and tougher industry conditions. As the market further matures, similar results are expected with establishment numbers, with an average decline of 0.4% per annum. With the decrease in establishment numbers over the forecast period, employment numbers are also expected to continue its downward trend through to 2012. Once again, industry consolidation will be the major factor of reduced employment numbers, and around 95,000 workers are expected to be employed in this industry in 2012. This is an estimated 0.7% per annum average decline over the five years.

As mentioned, international trade is expected to increase over the outlook period, with companies within the industry increasingly competing on the basis of cost leadership, as prices and margins within the industry continue to fall. In addition to price, factors such as product life,

design flexibility, matching customer specifications, timeliness, and product quality will increasingly become important attributes within organizations in order to obtain, as well as attain, customers. Overall, import competition is expected to grow to around 49.4% of domestic demand by 2012 (42.4% in 2007), while exports as a percentage of revenue are expected to increase to 34.7% (28.9% in 2007).

Excerpts from ***Metal Valve Manufacturing in the U.S.***, IBISWORLD Industry Report, July 2007

33351 – Metalworking Machinery Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing metalworking machinery, such as metal cutting and metal forming machine tools; cutting tools; and accessories for metalworking machinery; special dies, tools, jigs, and fixtures; industrial molds; rolling mill machinery; assembly machinery; coil handling, conversion, or straightening equipment; and wire drawing and fabricating machines.

The demand determinants for this industry include:

- The level of product demand for metalworking machinery and equipment corresponds to industrial production. The industrial product market reflects the growth of the manufacturing economy (the industrial market has been cyclical, experiencing higher growth rates during periods of economic expansion).
- A key demand driver in this industry is the capital expenditure patterns of the Primary and Fabricated Metal Product Manufacturing Industry. In 2003, capital expenditure in the Primary and Fabricated Metal Product Manufacturing Industry Group was 20 per cent lower or $887 million to $3.399 billion than 1999.
- Businesses are not materially affected by seasonal variations, however, to varying degrees, traditional summer vacation shutdowns of metalworking customers' plants and holiday shutdowns often affect sales levels during the first and second quarters of the financial year.
- Determinants of demand include: business expenditure on plant and equipment; the age of the capital equipment in businesses; exchange rate changes; and customer demand for products manufactured or processed by firms using metalworking machinery and equipment.
- The purchase of new machinery and equipment is also influenced by the cost of new equipment, taxation rates, capital allowances and depreciation, the cost and selling prices of second hand equipment, and the cost of repairs and maintenance to existing equipment.

The life cycle stage of this industry is decline:

- In the past five years industry revenue contracted by 5.3 per cent per annum, and industry value added by 4.7 per cent per annum. Both revenue and value added contracted at a rate below that of US GDP. Poor economic conditions during the performance period were the main factors contributing to lower domestic demand.
- The industry's growth rate has slowed to below that of the overall economy as most products manufactured in this industry are heavily dependent on the cyclical growth in downstream

construction and manufacturing markets and are subject to growing competition from international manufacturers.

- Over the past five years, IBISWorld estimates that firm profitability has been under pressure at a relative low (but stable) level (in comparison to a growth phase were profits are significantly higher but more variable). Analysis indicates that industry profitability has fallen as a result of higher manufacturing costs, low price growth and increased import competition.
- With price competition and falling profit margins, enterprise and establishment numbers in the industry have contracted by 2.5 per cent per annum respectively. If anything some of the larger firms in the industry have attempted to merge and acquire some of the smaller players within the industry - a strategy to increase product and market spread - while other smaller and mid-sized firms have ceased to operate.

Industry Outlook

IBISWorld forecasts that between 2008 and 2012, industry revenue will increase at an average annualized rate of 1%.

Metalworking machinery and equipment is used in a wide range of industrial applications throughout the world (products serve different end markets). In aggregate, changes in GDP, industrial production, and capacity utilization have corresponded to a reduction and/or expansion in demand. In this regard the IBISWorld forecasts that industrial production will increase on average by 3.4% per annum to 2012. Over the performance period, the level of industrial production will increase by 3.7% in 2008 and 2009. Growing at a decreasing rate, the IBISWorld forecasts that US industrial production will grow by 3% over the final three years of the performance period. Driving the reduction in industrial output (as depicted by the value of sales revenue) will be the continued growth of off shoring of production to the Asia Pacific and Eastern Europe, and increasing imports of goods and services (Economist Intelligence Unit forecasts 16% annual average growth).

Beyond an overall economic upturn, international customers will seek metalworking tools that last longer and are more durable. Some industry sources argue that this will create business opportunities for the industry going forward, particularly after market sales and service in emerging Asian and Eastern European markets. With the growth of international trade expected to continue companies within the industry will increasingly compete on the basis of cost leadership as prices and margins within the industry continue to fall. As firms attempt to generate an adequate return on assets employed, industry structure will become more conducive to mergers and acquisitions (in an attempt to lower cost structure through economies of scale). In this environment firms will try to obtain low operating costs in all market segments in which they operate (businesses survive on the competitiveness of their products). IBISWorld believes that these cost advantages will arise from economies of scale, technological systems and design, and cheaper access to raw materials. Companies that can achieve cost advantages and command industry-average prices will earn above average profits in the period ahead.

Given these changing economic conditions firms within the Metalworking Machinery Manufacturing Industry are forecast to consolidate as manufacturers face growing competition

from global conglomerates and pressures to reduce costs from customers. Because the domestic Metalworking Manufacturing Industry is comparatively mature, IBISWorld believes that there is a lack of significant domestic business opportunities going forward, there are, however, opportunities for manufacturers to grow through acquisitions or by attracting customers in the Asia-Pacific and Western European regions. As with the aerospace and transportation sectors, customer industries are increasingly seeking firms that can provide design and production solutions in the US, Asia-Pacific and Europe. This trend underlines the importance for manufacturers to build an international presence. The primary strategies open to firms is to set-up or acquire generalist or specialist valve manufacturers in other countries.

The interaction of competitive forces in domestic and international markets will determine the ability of companies within the industry to earn a rate of return in excess of the cost of capital. In the outlook period most companies will compete on the basis of cost as prices and margins fall in a mature environment. Firms will try to obtain low operating costs in all market segments in which they operate (businesses survive on the competitiveness of their quotes). These cost advantages will arise from economies of scale, technological systems and design, and cheaper access to raw materials. Firms generating higher returns on invested capital will tend to be those firms that follow a differentiation focus (firms that seek product differentiation in a particular niche market).

Another important factor affecting the fortunes of the industry going forward is the effect of the price of raw materials on profitability. Prices are forecast to rise by 6.9% in 2008, before falling 4.3% in 2009. Prices are expected to remain fairly constant for the remainder of the outlook period. While remaining strong, consumption in China is expected to slow over 2008 and 2009, easing global pressure. Over the short term at least, domestic consumption is expected to exceed domestic production, with the US relying on imports to fill the gap.

Excerpts from ***Metalworking Machinery Manufacturing in the U.S.***, IBISWORLD Industry Report, February 2008

33361 – Engine, Turbine & Power Transmission Equipment Manufacturing in the U.S.

Operators within the industry manufacture a range of turbines, engines, and equipment used for power transmission, such as generators. These products are then sold to auto manufacturers, power generators, and other original equipment manufacturers.

Goods produced by the Engine, Turbine and Power Transmission Equipment manufacturing industry are demanded by a number of other manufacturing industries. These industries include: heavy-duty automotive, agricultural machinery, construction machinery and power generation. As a result demand for the goods produced by these industries will affect demand for goods produced by the Engine, Turbine and Power Transmission Equipment manufacturing industry. Some of the factors which affect demand for the products of industries which are reliant on this industry are as follows:

Heavy-duty automotive manufacturing industry

- Road freight activity - as the level of road freight activity increases so does the demand for trucks and the engines required to power them.
- Demand for bus transportation - an increase in passenger activity on buses increases the demand for buses.

Agricultural machinery manufacturing

- Farm incomes - growth in farm incomes increases a farmer's ability to purchase agricultural machinery, increasing both demand for the machinery and the engines that power it. Farm incomes are affected by world commodity prices and climatic factors such as drought.
- Rural activity - an increase in rural activity increases demand for farm machinery. Climatic conditions and commodity prices affect acreage of crops sown, which in turn determines the need for farm machinery.

Power Generation

- Population growth - as the population grows, there is an increase in demand for electricity.
- Industrial activity - An increase in industrial activity increases demand for electricity.

Construction machinery manufacturing

- Interest rates - low interest rates encourage construction activity
- Population growth - as the population grows, demand for new dwellings and infrastructure increases.
- Equipment replacement demand - is affected by the capacity and cost of operating existing equipment relative to new equipment. Technological innovation in new equipment can accelerate replacement.

The life cycle stage of this industry is mature:

- Over the past five years, industry value added has grown at an average annualized rate of 4.3, only 0.5 percent above the average rate of GDP growth over the same period of time.
- Saturation. The industry has attained a high penetration of engines and turbines in its major market segments (e.g. electricity generation etc.), with growth now more dependent on the level of activity in end-use markets. A major end-use application of industry products is power generation, where growth is expected to keep pace with GDP growth.
- The average market share of the industry's top four largest major players has been increasing over the past five years.
- New products are periodically introduced as old products are phased out.

Industry Outlook

The future of the Engine, Turbine and Power Transmission Equipment Manufacturing industry is primarily dependent upon the downstream demand from manufacturing industries, particularly heavy-duty automotive manufacturing. Manufacturing industries will be primarily affected by the demand for their products in consumer markets, as such, a change in a factor that affects downstream demand will also impact industry revenue. Other factors that impact industry

production, particularly for electrical equipment and generators include construction levels and housing starts.

Industry Revenue

IBISWorld forecasts that over the outlook period, industry revenue will grow by 13.1% to $55.98 billion, which will represent an annualized rate of 2.5%. Industry revenue growth is forecast to out perform the manufacturing sector, which also occurred during the current performance period.

Construction activity and auto production is expected to improve in 2008, increasing demand for engines in these sectors. As a result, IBISWorld forecasts that industry revenue will grow by 1.5%, 3.2%, and 4.1% respectively, in 2008, 2009, and 2010. Over the longer term, IBISWorld forecast industry revenue to increase by 2.7% and 1%, respectively, in 2011, and 2012, as auto production and construction activity fall in line with GDP growth.

Risks this forecast include increasing gasoline prices, which will reduce demand for heavy-duty trucks as freight transport is substituted with rail networks. Industry revenue may also be impacted by outsourcing manufacturing facilities to low production cost countries. This will negatively affect industry revenue as domestic production will fall.

Value Added

IBISWorld forecasts that between 2008 and 2012, industry value added will grow by 12% to $26.6 billion. Value added is expected to grow at an average annualized rate of 2.3% during the outlook period, which will be marginally lower than revenue growth. Subsequently, value added share of industry revenue is expected to fall from 48% in 2007, to 47.5% in 2012. This decrease will be driven by production capacity shifts to countries that have lower costs of production.

Future trends

This industry will continue to be dependent on demand from certain sectors which are affected by conditions that are out of the industry's control. For example, this industry supplies the agricultural equipment market, which produces about 340,000 pieces of equipment per year above 75 horsepower. Agricultural producers are vulnerable to drought and volatile world commodity prices that reduce farm incomes, demand for farm machinery and hence demand for the engines that power that machinery.

Environmental concerns have resonated for decades, but it has only been recently that Government agencies have treated them seriously. In order to reduce emissions by fossil fuel consuming machinery, engines must be modified and turbines altered. The modification of engines will impose greater costs upon engine manufacturers, which may not be able to be recouped in the medium term from downstream manufacturers. Legislators have proposed to prohibit engine makers from passing on costs to truck manufacturers and in return receive a tax credit. Such legislation would reduce the effect of the EPA's compliance standard on industry revenue. It is estimated that compliance costs will total around $4.3 billion per year and more

specifically, engine compliance costs are estimated to be between $1200 and $1900 per engine and an extra 4 to 5 cents per gallon of fuel. These costs are expected to be offset by the social benefits of less pollution, which is expected to prevent 8,300 people dieing prematurely from respiratory illnesses, save approximately 1.5 million work days that otherwise would have been lost and reduce nitrogen oxide pollutants by 2.6 million tons. Whilst tax credits may limit offset some costs, the Motor and Equipment Manufacturers Association (MEMA) is concerned that high prices may filter through to the retail level resulting in demand being pulled forward, which would also result in a drop the following year as consumers and businesses buy early to avoid increased costs.

IBISWorld estimates that 65% of industry revenue is derived from manufacturing engines related to heavy-duty automotive vehicles, such as buses and trucks. Subsequently, factors that affect this key market segment will also influence industry revenue during the outlook period. For instance, the sharp and significant increase in the oil price has impacted consumer discretionary purchasing power, dampened consumer incentive to use motor vehicles and has made transportation more expensive for businesses and other end users. Whilst increased transportation costs may financially impact firms that utilize heavy duty automotive vehicles, substitution to other modes of transport that have low or lower oil intensity is not likely unless oil prices exhibit a prolonged period of high prices. If this were to occur lower downstream demand would affect industry revenue.

The power generation segment is set to continue to grow, enhancing industry revenues. Technological improvements to wind turbines have increased their viability as a genuine alternative to fossil fuel powered turbines. In the future, environmental scrutiny of energy generation will continue while energy demand is not diminishing. If wind turbines continue to develop and grow in popularity at present rates they will become a significant product segment within this industry in the next decade.

Excerpts from ***Engine, Turbine & Power Transmission Equipment Manufacturing in the U.S.***, IBISWORLD Industry Report, September 2007

Plastics and Rubber Manufacturing

Definition

NAICS Codes

32611 – Plastic Film, Sheet & Bag Manufacturing
32612 – Plastic Pipe & Parts Manufacturing
32614 – Polystyrene Foam Product Manufacturing
32615 – Urethane Foam Product Manufacturing
32616 – Plastic Bottle & Container Manufacturing

Recommended Research Filters

When marketing to this industry, we recommend that Chester County target companies within the following parameters.

Sales:	$10m minimum
Employment:	100 minimum
Geographic Scope:	National
Growth:	10% in sales or employment (over two years)
Events:	Predictive events such as executive change, merger/acquisition, new markets, new products/services, new contract, and IPO.

Plastics and Rubber Universe	
Companies within geographic scope	4,396
With 100+ employees and $10m+ sales	404
With growth and/or events	105

Industry Importance Factors

Based on our experience, the following site location factors and labor needs are most important to the logistics industry.

The most evident site location factors are related to the area's access to markets. These factors include geographic proximity, the cost of services to transport goods, the availability of services to transport goods, and telecommunications. Obviously, distribution companies need to be close to their customers. The ultimate goal is for companies to increase profit margins by delivering goods as timely and efficiently as possible. Access to a wide variety of transportation alternatives will be increasingly important as inter-modal, containerized shipping proliferates. For trucking, easy access to the interstates and major roadways is vital. Also, there will be an ever increasing need for reliable, redundant telecommunications infrastructure as shipment tracking and supply chain management via the Internet increase throughout the distribution industry.

Other significant location factors considered by the distribution industry include land availability, land cost, built space cost, and construction costs. Transportation companies are typically asset-heavy and spend a large portion of their revenue on equipment and facilities. The availability of large buildings or sites would also be paramount for distribution companies as they build for economies of scale. Another moderate location factor in the distribution industry is the dependability of energy.

Labor is another major expense for the transportation industry. When looking at the available workforce, the industry specifically needs transportation and material moving workers. The cost of both skilled and unskilled labor is also a vital factor as well for these companies as they attempt to remain competitive.

Quality of life factors are relatively unimportant to the distribution industry. However, transportation intermediary companies such, as third-party logistics companies are largely office workers and managers. Quality of life factors would be highly important to this sector of the industry.

Labor Outlook

NAICS Code	Industry	1996 Jobs	2006 Jobs	2016 Jobs	1996-2006 Change	2006-2016 Change
3261	Plastic Product Mfg.	920,000	796,900	764,300	-13%	-4%

Source: U.S. Bureau of Labor Statistics, Monthly Labor Review, November 2007

32521 – Plastic, Resin & Rubber Manufacturing in the U.S.

This industry comprises management units primarily engaged in the manufacture of synthetic resins and plastic materials (i.e. polymers) and/or synthetic rubber. These manufacturing activities may be undertaken on both a customized or non customized basis. Key product groups include thermosetting resins, thermoplastic resins and synthetic rubber. Raw material inputs are sourced from other components of the chemical industry as well as from those industries involved in the production of petroleum based feedstocks. Industry products are then sold to a variety of downstream industries including packaging, chemicals, construction, and transportation.

The products produced by this industry are intermediate products utilized in the production of a wide variety of products including consumer products, automotive components and various durable and non-durable goods. For example, polypropylene (PP) resins are used in flexible and rigid packaging applications, in textile applications, in electrical/electronic applications and in the automotive industry; in the latter case PP accounts for 50% of all plastics used in passenger cars. Thus variables influencing the level of demand for various plastic materials, resins and synthetic rubbers include the following:

- Growth in the domestic economy as a whole, which in turn influences the level of demand from user industries and final consumers. Note given the role that exports play as well as the global nature of the industry, global economic prospects can also influence the level of demand;
- Growth of, and developments in, major user industries can also affect demand for the industry's products. These include production levels as well as other factors, such as substitution possibilities and technological developments.
- Technological advancements within the industry can also influence demand. For example, technological advancements within the polypropylene segment have seen manufacturers switch from high performance engineering plastic resins to special PP resins and compounds which offer lower cost performance, easier processing abilities and which can also meet recycling requirements. Basell in particular has sought to continuously develop and reinvent polypropylene's properties and applications, often displacing traditional materials (including other plastics) in the process.
- The price of plastic materials and resins relative to other manufacturing inputs. Note some industry products can also be used as substitutes for each other; for example when natural gas costs are high, oil based polypropylene materials may be favored over natural gas based polyethylene resins.
- Environmental pressures may also influence the level of demand. For example, producers of acrylonitrile-butadiene-styrene (ABS) are benefiting from ecological concerns over the use of polyvinyl chloride (PVC).

The life cycle stage of this industry is mature:

The industry is characterized by its mature phase in the life cycle. This is evidenced by the industry's moderate growth rate which is in line with that of the general economy; in the decade to 2007 growth in value added averaged 4.2% per annum. The existence of clearly defined segmented product groups and user industries, and the fairly stable nature of industry products, brands and ownerships also suggests that the industry is in the mature phase of its current life cycle. This is particularly true for those involved in the manufacture of synthetic rubber, particularly emulsion grade styrene butadiene rubber.

However despite the maturity of the industry, the demand for many synthetic resins continues to grow given their versatility in the manufacture of a wide variety of products from flexible packaging for foodstuffs to automotive components to electrical appliances. For example while most markets for ABS (acrylonitrile-butadiene-styrene) are mature, ABS products are finding new applications prompted in part by the replacement of coating products in end markets such as the automotive industry. Other ABS producers are looking at the co extrusion of ABS with the likes of Bayer looking to target new areas by replacing fiberglass with co extruded ABS. This trend is expected to continue over the outlook period as is the move towards recycling plastics, both of which will provide growth opportunities for the industry.

Industry Outlook

Revenue

The US Resin and Synthetic Rubber Manufacturing Industry will continue to be characterized by its volatile nature. In the immediate future natural gas and crude oil prices will remain volatile as will the pricing structure for a number of products. During 2008 it will be interesting to see what (if any) price increases can be pushed through by various industry participants; in recent times price increases have been cost-push driven (reflecting the fact that petrochemical derived feedstocks currently account for the bulk of a product's cost structure) and this scenario is expected to hold in the immediate future. Indeed the cost of energy will still continue to play a key role in the cash cost of polyolefins over the outlook period. This does not bode well for US resin manufacturers relative to their rivals in the Middle East who is expected to retain its sizeable cost competitive advantage in the production of polyethylene.

Cyclical economic factors will also influence the performance of the industry over the outlook period as will specific chemical industry conditions; while the global chemical industry is currently characterized by relatively strong demand combined with tight supply in a number of product areas, it remains to be seen how sustainable this is, particularly as new capacity additions (predominantly located in the Middle East and Asia) come on stream later in the decade. Thus as a mature industry, cyclical supply and demand imbalances within both the industry as well as in downstream user industries will continue to affect industry performance. Moreover as before, prices will fluctuate in line with demand and changes in capacity utilization.

Thus in the medium term future, the industry will be affected by the level of economic activity in general and in various downstream industries such as the plastics industry in particular. Supply/demand balances and raw material volatility will also continue to influence the industry as may the potential enactment of new energy legislation designed to promote environmentally friendly and efficient energy processes; in late 2007 the Senate passed energy legislation (H.R. 6) which is designed to obtain improved vehicle fuel efficiency, greater use of bio fuels, and more energy-efficient products.

Therefore in view of the above annual growth rates are now expected to average 3.3% per annum to reach $97,500 million by 2013. In a number of instances year on year growth rates in a number of individual product segments are still expected to exceed GDP growth. In other product segments, such as various synthetic rubbers, the growth rates may be lower.

Value Added

Growth in industry value added is anticipated to fluctuate in line with industry revenue. Relative to the previous period, growth is expected to be less volatile as feedstock costs exhibit a lower degree of volatility later in the period. Over the five year period to 2013 average annual growth rates are also expected to be in the order of 3.4%, bringing value added levels to an estimated $37,250 million by the end of the outlook period.

International Trade

Both imports and exports will continue to play a relatively significant role in the US Resin and Synthetic Rubber Manufacturing Industry over the outlook period. In particular it will be

interesting to note the fate of US exports in the face of increased competition from rival Middle Eastern and Asian petrochemical complexes who are proving to be increasingly serious contenders in view of their large-scale, low-cost structures which are oriented towards the global market. (In comparison US participants are relatively high cost, globally uncompetitive producers). In addition, petrochemical capacities within these regions are expected to increase further over the outlook period as the geography of the ethylene supply base continues to shift away from its traditional base. Of note is the fact that China Petroleum Chemical Corp. along with PetroChina Co have announced plans to commission as many as 12 crackers (each with a capacity in excess of 1 million tons a year) between 2007 and 2011. Thus while the recent growth in polyethylene consumption in the Asia Pacific region is expected to continue within the foreseeable future, there are no guarantees that the benefits of this growth will be captured by US exporters. Further uncertainty and /or volatility in natural gas prices will be to the detriment of US exporters.

At the same time, it is anticipated that imports will continue to grow in importance, satisfying an increasing percentage of domestic demand. It will be interesting to note whether any substantial growth in PVC imports occurs over the outlook period given the expected growth in disparity between the operating costs associated with the US's vinyls chain as opposed to lower cost Asian rivals including China's growing acetylene-based PVC capacity; according to research consultancy company CMAI (Chemical Market Associates, Inc.) the changing energy dynamics has lead to a change in regional competitiveness within the vinyls chain industry which in turn is now being reflected in changing global trade patterns. Also of note will be the impact of the continued capacity PVC additions that are expected to occur within the Asia region on the international prices for PVC, EDC and VCM. Japanese subsidiary Shintech is due to bring on a new vinyls facility either in late 2007 or early 2008.

Developments in Downstream User Markets

Given the mature nature of many of the products produced by the US Resin and Synthetic Rubber Manufacturing Industry, industry participants will continue to expand the range of processing and mechanical processes of plastic materials and resins to be used in an ever increasing array of applications and end uses. For example, this will then see the development of new grades of polyethylene and polypropylene using new polymerization catalysts and reactor processes; in June 2006 Basell launched its first North American offering of polypropylene based resin grades for frozen food packaging manufacturers.

The outlook period will also witness continued changes to the type and form of polymers demanded partly in line with increased demand for quality, efficiency and ecology. This last variable in particular will be of key importance as mounting environmental concerns with regards to the down stream use of plastics will have a number of implications for the industry. As manufactures are increasingly made responsible for the recovery, recycling and disposal of their product, there will be an increased focus on technologies designed to increase the recyclability of polymer products and utilize sustainable production processes. Thus environmental issues (including the need for reduced cost, solvent free and reduced VOC resins) will continue to underlie technological innovations which may revolutionize the manufacture of plastics in general. The possible increased use of methanol will also have implications for the type of technologies utilized by the industry.

It is interesting to note reports that Microsoft has recently stopped using PVC clamshell packs in its packaging of new software products while other PC makers such as Apple, Dell, Hewlett-Packard, Sony, sharp and Samsung are also looking into new packaging alternatives. Even the likes of Wal-Mart as well as Johnson & Johnson are seeking to eliminate the use of PVC in primary packaging. Trends such as these will of course have adverse implications for various industry participants. At the same time it is also interesting to note the findings of a recently released report by the Freedonia Group which states that US demand for plastic containers will grow by nearly 5% per annum to 2010 which in turn will create the demand for over 14 billion pounds of polyethylene-based polymers and other resins.

Other Trends

Further industry rationalization is expected to continue over this period, with a number of the older, less efficient plants being decommissioned. In the case of polypropylene (PP) further consolidation is expected as smaller plants are forced to close. This in turn will help promote the process of globalization, an increasingly important characteristic of the industry. A similar scenario is applicable for polystyrene (PS), a product for which global demand is currently deemed to be soft despite the strong economic growth occurring in China, one of the key consuming regions. In 2006, further PS capacity was closed within the North American region in line with the shift of both styrene and polystyrene capacity from higher cost facilities and/or regions to lower cost regions. It is interesting to note recent comments made by an executive of Basell who spoke of the polyolefins world as being one of change as market dominance shifts from the "west" to the "east" and as supply dominance shifts from the markets to the feedstock. According to Basell, production leadership is shifting from the traditional albeit mature markets to those areas of the world that possess low cost feedstock reflecting the fact that cash cost leadership now lies with the feedstock owning nations. The point was also made that the industry is beginning to see the ascendance of new players (many of which are coming from new geographies) with the simultaneous departure of the traditional North American and European integrated petrochemical companies.

Continued developments in the Middle Eastern and Asian chemical industries will also have a number of implications for the US Resin and Synthetic Rubber Manufacturing Industry. Recent years have seen the construction of a number of large scale petrochemical plants, often employing the latest technology. Additional plants are expected to be built or come on stream over the outlook period. These developments will serve to further increase the competitive pressures faced by the local industry. In the case of polypropylene, the number of US producers (as well as European and Japanese producers) will continue to fall while the number of major Asian and Middle Eastern producers will increase. It is anticipated that the largest PP expansion will occur within the Middle East to the extent that eventually the Middle East will become the ultimate source of a number of key polyolefins for the world. Note that another outcome of this development will again be a gradual change in trade patterns not only for polypropylene and polyethylene resins but also for the finished plastic goods themselves. Also of note is the announcement in late 2007 that Dow Chemicals is to sell a 50% interest in five of its global chemical and plastics business to Kuwaiti based Petrochemical Industries Co, (a subsidiary of state-owned Kuwait Petroleum Corp) for $9.5 billion as it forms a new joint venture which is expected to have annual sales in excess of $11 billion and employ over 5,000 people. Designed

to be a leading global petrochemicals company, the jv is to manufacture and market polyethylene, polypropylene, polycarbonates, ethylenamines and ethanolamines. The deal is to give Dow access to cheap natural gas; indeed the jv will build upon PIC's feedstock position. Subject to the completion of definitive agreements and regulatory approvals, the transaction is anticipated to close in late 2008.

It is possible that global players may actually seek to close US production facilities in favor of lower-cost facilities located within the fledging petrochemical industries of Southeast Asia. For example, BASF is to significantly cut its North American investment rate (by about 50% of its five year average) and will focus instead on new investments with the Asia Pacific region. (It is also in the process of restructuring its business including its Plastics business and may in fact sell its styrenics business). Other players are planning to invest more money into the Asia Pacific region in an attempt to even out regional production shares; for example in September 2007 ExxonMobil Chemical Co announced that it was to build a second integrated steam petrochemical plant (with an ethylene steam cracker, two polyethylene units, a polypropylene unit and a specialty elastomers unit) in Singapore which is due to come on line in early 2011. Developments such as these will have fundamental, albeit gradual, implications for the future of the industry.

US producers will also have to contend with the increasing commoditization of their products, a development which will add further pressures to already weak margins. They will also remain vulnerable to periodic energy pricing shocks. The American Chemistry Council recently made the point that if natural gas prices remain at projected levels, then `demand destruction' may occur as industrial users are priced out of the US market. In response to the current scenario a number of the larger integrated chemical companies are presently reviewing the sustainability of their US operations; as part of this process they make seek to enact yet further cost-cutting measures with a view to improving to energy efficiency levels; for example in late 2007 Dow announced plans to cut 1,000 jobs as it seeks to rationalize its operations. More drastic measures however may see the closure of various North American plants which are deemed to be inefficient as resources are shifted to other regions which offer a competitive advantage re natural gas supplies. On a related note it is interesting to see that Wellman (who has not returned a net profit since 2001) is putting itself up for sale as the North American PET resin industry adds new capacity which is expected to outstrip demand.

In view of the variables outlined above further consolidation is expected within the US petrochemicals industry. Of note is Basell's acquisition (owned by the privately held industrial group Access Industries and the world's largest PP producer) in late 2007 of Lyondell Chemicals (North America's second largest ethylene and propylene producer) for $12 billion which has seen it gain ownership of a number of large US petrochemical complexes. This follows on from its unsuccessful attempt to purchase Huntsman Chemicals for $9.6 billion in June 2007 with Huntsman Chemicals instead being acquired by Hexion Specialty Chemicals (which claims to be the world's largest producer of thermosetting resins). Additional acquisitions amongst other major chemical/petrochemical players should they follow suit may have long term implications for the industry.

It is therefore anticipated that the US Resin and Synthetic Rubber Manufacturing Industry will continue to evolve over the outlook period in line with its changing operating environment.

Excerpts from ***Plastic, Resin & Rubber Manufacturing in the U.S.***, IBISWORLD Industry Report, February 2008

32612 – Plastic Pipe & Parts Manufacturing in the U.S.

Operators within this industry manufacture a range of plastic pipes, plastic fittings for those pipes, and plastic profile shapes such as rods and plates. The pipe products are sold to customers with fluid handling requirements such as water treatment plants, oil rigs, farmers etc.

The major demand determinants include:

- The level of residential and non-residential construction activity affects demand for water, sewerage and gas pipelines. The level of interest rates, population growth, household formation and government expenditure on infrastructure and other buildings.
- The level of public construction activity is affected by economic activity, environmental considerations, changes in industry cost structures (i.e. gas, water), and new products associated with technological advances (e.g. broadband telecommunications and underground cable).
- Investment conditions in farming and mining industries, influenced by commodity prices and weather, affect the demand for pipes used for irrigation and the transfer of water, other liquids, slurry and gases. Large polyethylene bore pipes are used in the mining industry for slurry and water reticulation.
- Household consumption expenditure on home improvement and high value consumer goods, such as refrigerators and automobiles. An increase in demand for refrigerators and automobiles, in turn, increases demand for pipes and ventilation hoses.
- Replacement demand. This is influenced by the age and condition of existing major pipe systems and the maintenance/replacement decisions made by organizations responsible for the pipeline.
- Product innovation giving rise to new applications for plastic pipes and shapings. For example, the development of higher molecular weight materials in polyethylene pipes has enabled these pipes to handle higher pressures, making them particularly useful in situations where larger diameters or thin walled pipes are required.

The life cycle stage of this industry is mature:

Over the past five years, the industry has experienced moderately high value added growth; however industry performance remains subject to broader economic determinants. The industry has obtained a high penetration of plastic materials in its major market segments (e.g. pipes), with growth now dependent in the level of activity in end-use markets. Growth in the industry will be determined by the performance of the construction and manufacturing sectors.

There is a trend towards consolidation present within the industry. Anecdotal evidence suggests increasing merger and acquisition activity, while the number of establishments and enterprises steadily decreases. This is reflected by ADS's purchase of Hancor in 2005, and PW Eagle's acquisition of Uponor Aldyl (see Major Players section).

Industry Outlook

IBISWorld expects the Plastic Pipe, Pipe Fitting, and Unsupported Profile Shape Manufacturing (PPU) industry to outperform the broader manufacturing sector over the next five years. Short term growth will continue to be supported by high plastic resin prices, while the medium term performance will see growth moderate in line with business infrastructure investment.

High plastic prices are expected to persist throughout 2008 and 2009, driving industry revenues upwards. IBISWorld forecasts that industry revenue will increase by 7.5% in 2008 and 6% in 2009. Lower plastic prices and slower economic growth will reduce industry revenue over the final three years of the outlook period. IBISWorld forecasts that industry revenue will increase by 2.5%, 1.5%, and 1.2%, respectively, in 2010, 2011, and 2012.

Key Risks to Forecasts

While the risk of a broader economic downturn in the US will have a significant impact on the PPU, there are a number of risks that have been identified that relate specifically to the PPU industry:

- A cyclical decline in the housing market, which began in mid-2006, threatens to constrain demand for PVC piping from the construction sector.
- While the level of import competition the PPU faces is not high, it is currently being protected to some degree by the low US dollar. The vast majority of import competition comes from Canada, a change in the US/Canadian dollars exchange rate will significantly increase the competitiveness (in terms of price) of the Canadian product.
- The broader manufacturing sector is currently facing fierce competition from emerging nations, particularly from Asia. Further deterioration of the manufacturing sector could have a significant impact on the PPU industry. For example, the PPU industry supplies the US automotive industry with plastic unsupported profile. The automotive industry is facing extremely tough international competition, and the future of the industry is uncertain.
- Evidence that economic growth appears to be slowing in the US.

Future Trends

The PPU has always been very active in the research and development of products that can substitute for more expensive metal or concrete products. This continues to be an important theme for the industry. The current high price of many metals gives the industry the opportunity to further infiltrate into what have traditionally been metal dominated markets. Developing cheaper methods of production will be a very important factor, as competition remains strong particularly from light weight aluminum and steel.

Further, demand from the agricultural sector is expected to increase. The combination of drought and salinity issues has made farmers aware of the importance of watering more

efficiently in agriculture. As a result, in years to come, flood irrigation will cease, causing farmers to invest in spray irrigation systems which apply water more efficiently. The lowest-cost spray irrigation alternative to farmers is a system using plastic pipes and fittings.

Excerpts from ***Plastic Pipe & Parts Manufacturing in the U.S.***, IBISWORLD Industry Report, November 2007

32614 – Polystyrene Foam Product Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing polystyrene foam products.

The major demand determinants include:

- The level of household consumption expenditure. Household consumption expenditure drives demand for polystyrene foam products used as an input by manufacturers of consumer goods, household appliances, furnishings, safety helmets and motor vehicle components, and used by wholesalers and retailers for packaging of fresh fruit and vegetables, and by fast food outlets for food and drinks containers.
- Demand for polystyrene foam food and beverage containers is positively affected by growth in the fast food and takeaway restaurant markets. These containers can also offer superior insulating and molding qualities.
- Residential and non-residential construction activity. In addition, the level of activity in the building industry affects demand for polystyrene foam used in thermal and thermo-acoustic insulation products, and in void fillers.

The life cycle stage of this industry is mature:

- IBISWorld estimates that the real value of industry shipments grew at an average annualized rate of only 0.4 percent in the five years to December 31, 2005.
- There has been a significant decline in this industry's capital expenditures in recent years.
- New applications for polystyrene products have slowed.
- Some industry products are supplied as intermediate products (e.g., packaging) to manufacturers that are, in turn, in industries that are growing slowly or are subject to significant import competition.
- Technological changes have slowed and are not significant, compared to other plastic converting industries. Technological changes are largely introduced by the suppliers of machines and raw materials.
- Paper products have made some inroads into some food packaging segments (partly due to environmental concerns relating to the disposal of plastic materials).
- Strong levels of home building activity in the United States in the five years to December 31, 2005 positively affected demand for building insulation, as well as products used in household durables. An increase in the average size of new homes also bolstered demand for insulation, as did State energy codes that promoted insulation.

Industry Outlook

IBISWorld forecasts that industry value added (IVA) will grow at an average annualized real rate of 2.2% between 2008 and 2012, while GDP will grow at an average annualized real rate of 3%. IBISWorld forecasts that the rate of average annualized real growth in IVA will exceed the rate of average annualized real growth in the value of industry shipments (2.1%) over the same period of time.

A downturn in capital expenditures by this industry in recent years indicates that little additional capacity has been added. This also indicates that at least some industry players may have forecast that growth and profitability will slow relative to that experienced in the 1990s.

There is some uncertainty around the future level of end-product prices due to the influence of volatile crude oil prices on plastic resin (input) prices and on distribution costs. IBISWorld believes that the pricing of industry products over the outlook period will reflect more closely the prices of raw material - and this will benefit margins (and value added) and more so if raw material prices decline.

Growth in sales values will come from underlying volume growth, albeit moderate. Innovations in polymers and manufacturing processes will enable polystyrene foam manufacturers to moderately reduce the volume of raw materials per unit of production.

IBISWorld forecasts that foam cup segment demand will grow at an annual rate of 2.8%, between 2008 and 2012, benefiting from growth in demand for large cups, in the take-out market and in casual dining.

There are threats to growth in demand for some industry products, including from the environmental lobby (refer below). Suppliers of packaging to U.S.-based consumer electronics, appliance and glassware manufacturers would be adversely affected by any increase in import penetration on those packaging-user industries.

IBISWorld forecasts that economy-wide consumer spending will ease over the outlook period, growing at an average annualized real rate of 2.8%. This is lower than the average annualized real rate of growth in the five years to 2007 (3.3%). Moreover, there is a risk that consumer spending could be hit by a decline in asset prices (such as in equity or housing prices) and, if such an outcome were to eventuate, IBISWorld would revise down its forecast levels of consumer spending (as well as spending on this industry's products). Moreover, high gasoline and energy prices would, if sustained, dampen consumer spending on other goods and services.

Packaging is a major application for polystyrene foam products. A trend of growth in single person households is one factor that should bolster demand for packaging materials, particularly for take-away and prepared foods. This should provide a source of growing demand for expanded polystyrene foam (EPS) packaging. However, environmental interests may act to reduce demand for EPS packaging in some food applications (McDonalds, for example, has previously reduced the use of EPS packaging). The industry is promoting collection centers and recycling to counter this threat.

The level of building construction activity, particularly housing, affects demand for insulation and other polystyrene building products, as well as the demand for packaging. IBISWorld forecasts that the growth in housing construction activity will slow over the outlook period, relative to the previous five years (refer to Table below). This follows very strong levels of housing construction activity, and activity should slow as interest rates rise, as the economy weakens, and as growth in the US population slows. The pace of growth in non-residential construction activity is also forecast to moderate between 2008 and 2012. The principal factors weakening the outlook for non-residential construction activity include the slower pace of general economic and employment growth over the full outlook period, and high vacancy rates in some property markets early in the outlook period (notably office stock).

In the building insulation market, polystyrene foam should gain market share (mainly from fiberglass and mineral wool). New and growing building applications for plastic foams include void filling (e.g., under concrete slabs) and roofing materials.

Excerpts from ***Polystyrene Foam Product Manufacturing in the U.S.***, IBISWORLD Industry Report, August 2007

32615 – Urethane Foam Product Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing plastic foam products (except polystyrene). These products are used to insulate objects or reduce shock. Plastic foam products are used in bedding, packaging, seat cushioning, carpet cushioning, car interiors, fluid filtration systems, anti-noise and vibration systems in aircraft, medical devices, and a number of consumer applications such as sponges, mops, paint brushes, and cosmetic applicators.

The major demand determinants include:

- Consumer spending, which influences demand for foam used by manufacturers of furniture, bedding and motor vehicles (and associated parts). Consumer spending on furniture, bedding and insulation is also influenced by residential construction activity and household formation.
- Construction activity levels in the United States affect local demand for insulation. Levels of non-residential construction activity and private and public infrastructure expenditure can affect demand for some other products (e.g. foam used for public seating).
- Competitiveness with substitute products. Some customers require foam products that deliver very high performance (such as high fire retardant qualities), particularly customers providing seating and other accommodation to the public (such as transport authorities).
- Intermediate demand is also affected by the competitiveness of US-based manufacturing customers. Where manufacturing customers lose market share to imports, this will adversely affect their sales and hence their demand for foam inputs.

The life cycle stage of this industry is mature:

- The industry has a dominant position in some major market segments (e.g. furniture and bed padding), where growth is largely dependent on the level of activity in end-use markets (which are cyclical).
- There is excess capacity in this industry. This, along with competitive pressures in the industry, has made it difficult to raise selling prices.
- A significant proportion of industry products are supplied as intermediate products to manufacturers that are in industries that are cyclical, growing slowly and/or are subject to significant import competition.
- Technological changes can be significant, compared to other plastic converting industries. Technological changes are largely introduced by the suppliers of machines and raw materials, with such technology usually widely available to competing plastic foam manufacturers.
- The use of plastic composite materials, which can offer increased utility to customers, is expected to increase in some foam padding applications.

Industry Outlook

Between 2009 and 2013, IBISWorld forecasts that:

- Industry revenue will increase at an average annualized rate of 6.3%.
- Domestic demand for polyurethane products will increase at an average annualized rate of 7.7%.
- The value of polyurethane products imported into the economy from abroad will increase at an average annualized rate of 8.1%.
- The value of polyurethane products exported abroad will increase at an average annualized rate of 7.7%.

Domestic demand for units produced will be driven by the value of construction put in place which is forecast to grow at an average annualized rate of 5.8% (up from an estimated 5.2% between 2004 and 2008). The level of building construction activity affects demand for insulation, as well as demand for bedding, furnishings and packaging. In the building insulation market, polyurethane foam should gain market share (mainly from fiberglass and mineral wool). New and growing applications for foam include void filling (e.g. under concrete slabs) and roofing materials. Construction is forecast to grow due to lower interest rates, more affordability and increased growth in the population and in household formation as a result of increased migration to the US.

Automotive production is forecast to grow at an average annualized rate of 2.2% over the forecast period (up from a decline of 3.4% per annum between 2004 and 2008). However, suppliers to the automotive and furniture industries in the United States will be adversely affected by a forecast increase in import penetration in those US industries. In addition, IBISWorld believes that new innovations should moderately expand the usage of industry products in building, furniture, bedding, packaging and automotive markets.

Industry selling prices have, in the past, been highly correlated to the movement of crude oil prices. Between 2004 and 2008, crude oil prices are expected to increase at an average annualized rate of 7.7% (down from an estimated 22.2% between 2004 and 2008).

Large companies in the manufacture of polyurethane foam products will be in a better position to devote resources toward R&D,, and toward developing global R&D alliances. New technology is important in improving product quality and characteristics, and in driving productivity gains (which can all help to boost profit margins), as well as in winning market share from substitute products.

IBISWorld believes that it will become increasingly difficult for smaller players in this industry to survive. To succeed, smaller players should have a strong focus in niche markets, and should have strong R&D activities or, alternatively, seek to license technology from larger operators in the US or from overseas.

Threats to outlook
The occurrence of certain events in the future which are out of the industry's control pose a threat to this forecast. They include:

- The rate of recovery of the residential construction market.
- The rate of resurgence of consumer spending after a series of interest rate reductions by the Federal Reserve
- The volatility of crude oil prices.
- Environmental lobbying to reduce the consumption of some polyurethane packaging products.

Challenges to the industry
The industry faces the following challenges moving forward:

- The maintenance of selling prices at a level that accommodates raw material and energy cost increases.
- To increase production efficiency.
- To develop new products that will increase the usage of polyurethane products in building, automotive and consumer markets.
- Increased control over both production and non-production labor costs, and manufacturing overhead costs.
- To better adjust manufacturing volumes to changing downstream demand to avoid oversupply.

Excerpts from ***Urethane Foam Product Manufacturing in the U.S.***, IBISWORLD Industry Report, February 2008

32616 – Plastic Bottle & Container Manufacturing in the U.S.

Operators within the industry manufacture a range of bottles from different plastic compounds depending upon their end-use. These bottles are then on-sold to beverage and food manufactures to be used to package soft drinks, milk, and ketchup.

The major demand determinants include:

- The price and performance of plastic bottle products relative to alternative materials (i.e. glass and aluminum).
- The level of household expenditures on beverages, food, cleaning liquids and chemicals (e.g. soap, shampoo, floor cleaner and polisher) and pharmaceuticals which utilize plastic containers.
- Consumer preferences for alternative packaging solutions influenced by cost, perceptions of quality and the recyclability of the packaging material.
- The level of exports of US food and beverage products, which affects demand for plastic bottle products.
- Technological advances that extend the applications and use of plastic bottles. The development of oxygen scavenging techniques has made PET more suitable for beer containers, causing significant penetration of PET containers in the market.
- A number of major users of plastic bottles have begun producing their own plastic bottles (i.e. Coca Cola). This phenomenon causes a reduction in demand for plastic bottles from manufacturers that target external markets.

The life cycle stage of this industry is mature:

IBISWorld estimates that between 2004 and 2008, industry value added will grow at an average annualized rate of 1.3%, while real GDP is estimated to grow at 2.7% over the same period.

The market share gains made by plastic bottles over substitute products, such as glass, have now moderated. Much of these gains were made by the emergence of new barrier technology driven by the introduction of new beverage product lines. Consumer demand for these products has now moderated relative to when they were first introduced. IBISWorld believes that there is scope in the future for plastic bottles to gain market share over glass, however, this will only arise with new consumer product introductions.

Industry Outlook

Between 2009 and 2013, IBISWorld forecasts that:
- Industry revenue will grow at an average annualized rate of 4.1%
- Domestic demand will grow at an average annualized rate of 8.5%
- The value of plastic bottles imported into the US economy will grow at an average annualized rate of 3.7%
- The value of plastic bottles exported abroad will grow at an average annualized rate of 8.5%

Soft drink consumption in the US is forecast to decline at an average annualized rate of 0.7% (down from an estimated average decline of 0.5% per annum between 2004 and 2008). Bottle watered consumption which has grown at an average annualized rate of 2.2% over the five years preceding the outlook period is forecast to moderate, growing at 1% per annum between 2009 and 2013. Plastic resin prices are forecast to increase at an average annualized rate of 5.3% (down from an estimated average 8.8% per annum between 2004 and 2008).

The early part of the outlook period will be sluggish as consumer confidence improves in the wake of the sub prime financial crisis. Tax cuts and a fiscal stimulus package will increase

disposable income entering 2009. Together with rising resin prices and the continuation of the penetration of glass packaging markets by plastic bottles the industry will record solid growth.

IBISWorld forecasts that Europe, Canada and Japan will be the most important export markets to firms within the industry over the outlook period. China and Korea will provide the greatest import competition for industry firms over the same period.

IBISWorld forecasts that industry value added will increase at an average annualized rate of 1.3%, compared to an average annualized rate of GDP growth of 2.7% over the outlook period. Labor costs increasing faster than productivity after a period of low capital expenditure by the industry will result in the erosion of value added.

IBISWorld estimates that the number of industry establishments will expand at an annualized rate of 0.5% as firms locate manufacturing facilities closer to key markets to reduce transportation costs. Employment is forecast to decline at an average annualized rate of 0.4% and wages increase at an average annualized rate of 1.3%.

Future trends

The continued substitutability of plastic for glass relies upon technological innovations that broaden the range of bottling uses for plastic. IBISWorld believes that the area with the greatest opportunity for growth continues to be the food and beverage market. There is particular scope for plastic packaging to substitute glass in food applications, such as salad dressings, ketchup and other commercially available sauces. Demand for plastic bottling for beer is forecast to expand over the next five years as breweries adopted the special technological processes requisite for the successful bottling of beer in plastic. Plastic beer bottles create an important export market which will drive industry growth in coming years.

IBISWorld predicts that increased competition in the soft beverage market will continue to fuel the trend for bottle manufacturers to locate on-site as soft beverage manufacturers seek to reduce their costs. This implies that plastic bottle manufacturers will need to exhibit increased flexibility, not only in terms of the location of their production lines, but also in terms of the ability of their production lines to produce a diverse range of products.

Excerpts from ***Plastic Bottle & Container Manufacturing in the U.S.***, IBISWORLD Industry Report, February 2008

Pharmaceuticals and Medical Device Manufacturing

Definition:

NAICS Codes

32541 – Pharmaceutical and Medicine Manufacturing
33451 – Navigational, Measuring, Electromedical and Control Instruments Mfg.
33911 – Surgical and Medical Instrument and Appliance Manufacturing

Recommended Research Filters

When marketing to this industry, we recommend targeting companies within the following parameters.

Sales:	$10m minimum
Employment:	100 minimum
Geographic Scope:	National
Growth:	10% in sales or employment (over two years)
Events:	Predictive events such as executive change, merger/acquisition, new markets, new products/services, new contract, and IPO.

Pharmaceuticals and Medical Devices Universe	
Companies within geographic scope	53,688
With 100+ employees and $10m+ sales	1,952
With growth and/or events	713

Estimated with D&B Market Identifiers and Applied Marketing Sciences data.

Industry Importance Factors

With pharmaceutical companies, the cost of skilled labor, reliability and the availability of professional and technical skilled employees are of high importance. Along the same line, secondary and higher education quality is a significant concern for the pharmaceutical industry. Also, access and proximity to a research university or institutions plays a role in location decision.

Geographic proximity to a supplier and customer base and transportation costs of goods are important factors, while the availability of air services holds moderate importance. Energy dependability is ranked high as medical products companies are undertaking very precise, high-tech production operations in many cases. Access to production inputs, specifically intermediate manufacturing products, is also ranked high across the board. Regulatory policies as well as taxes, worker compensation costs, and unemployment insurance costs are of moderate importance to the industry. The medical industry as a whole is one sector that is steeped in regulation and those regulations continue to have major influence. Quality of life factors, as with healthcare services, are becoming more and more key to location and expansion decisions.

Attracting the skilled labor needed for the medical industry is linked to the available quality of life.

The medical products sector has moderate need for technical professionals and a high need for a skilled precision production and repair labor force as well as available operators and assemblers. The cost of labor is a major expense and therefore a priority for medical products companies. Additionally, an available quality education program is an important factor for the medical products industry. For the most part, the medical products sector does not necessarily have a need to locate near research university or hospital environments.

Labor Outlook

NAICS Code	Industry	1996 Jobs	2006 Jobs	2016 Jobs	1996-2006 Change	2006-2016 Change
3254	Pharmaceuticals and Medicines	228,700	292,400	361,800	28%	24%
3345	Electromedical and Electrotherapeutic Apparatus	489,100	437,500	417,800	-11%	-5%
3391	Medical Equipment and Supplies	297,600	308,800	312,400	4%	1%

Source: U.S. Bureau of Labor Statistics, Monthly Labor Review, November 2005

32541 – Pharmaceutical and Medicine Manufacturing in the U.S.

This industry comprises management units primarily engaged in the manufacture of biological, medicinal and pharmaceutical products in various formats including ampoules, tablets, capsules, vials, ointments, powders, solutions, and suspensions. These are then sold via pharmacies or distributed via hospitals.

The demand for industry products is determined by a number of factors including:

- The age structure of the population - the older the population, all other things equal, the higher the level of demand for pharmaceutical and medicinal products. Reflecting the trend towards an ageing population, the 1990s saw the introduction of 150 products designed for age-related conditions.
- General levels of disease rates;
- Utilization/usage rates;
- Government policies on health - these affect factors such as doctors' prescribing habits and the price of pharmaceutical products. Government expenditure on health related areas is also an important variable;
- Advances in medical technology - this can be a positive or a negative factor affecting demand depending on the development (e.g. a new drug that fights a disease would increase sales, but a new medical procedure which eliminates that disease would cause a drop in demand for pharmaceuticals);
- Economic conditions - demand for non-essential drugs, herbal/botanical products etc is partly determined by the level of household disposable income.

The life cycle stage of this industry is growth. The pharmaceutical industry is deemed to have a relatively long life cycle of approximately 45 to 50 years. At the present point in time, it is deemed to be enjoying a new growth cycle. Key factors driving this growth include;

- New products: Driving the growth of new products are various lifestyle trends which are reflected in the need for products designed to combat modern day psychological stress, an ageing population which is boosting demand for drugs to combat degenerative diseases such as cardiovascular conditions, cancer and arthritis, and the development of new viruses such as AIDS. Continued technological advancements are also playing a part in the development of new products, including the new "bio-drugs".
- New technology and systems: Recent years have seen an increasing reliance on combinatorial chemistry, biotechnology, genomics etc, a trend which is set to continue. At the same time, the growing trend towards strategic alliances allowing pharmaceutical manufacturers to draw upon other's research expertise is expected to accelerate.
- New players: New players entering the industry include specialist manufacturers, bio-technology companies and OTC manufacturers focusing on complementary medicines and natural, homoeopathic (botanical) alternatives.
- New geography: The production operations of the larger dominant (global) players are becoming more centralized in nature (often organized on a regional basis) whilst their R&D operations are becoming increasingly decentralized through strategic alliances.
- New markets and customers: Managed care institutions such as HMOs are becoming an increasingly important customer for those manufacturers involved in pharmaceutical preparation manufacturing whilst customers interested in "alternative" therapies represent a new market for those manufacturers involved in the production of herbal/botanical products.

Industry Outlook

Industry revenue is forecast to increase from an estimated $182,000 million in 2007 to $210,000 million in 2012, representing an average growth rate of just under 3% per annum. Over the same period, growth in industry value added will also average 3% per annum to reach $156,000 million by 2012.

An aging population, increased patient access to prescription drugs due to the Medicare Part D program, changing community attitudes to health care and continued product development and innovation (including the "lifestyle" drug phenomena, the growth of personalized drugs as well as biotechnology innovations) are expected to underlie the continued growth of the industry, as is direct to consumer advertising and growth in the private health insurance sector. The development of new products in various therapeutic areas will also fuel growth including oncology, Alzheimer's disease, hypertension and vaccines. At the same time the industry will have to contend with the effects of patent expirations on blockbuster drugs, increasing competition from generics as a result of therapeutic substitution, pricing pressures, a thin/depleted product pipeline, increasing safety and regulatory issues, and growing price pressures from managed care organizations and the likes. A deteriorating public opinion with regards to the practices and profitability of pharma giants (not only in view of escalating prescription drug prices and rising medical insurance premiums, but also with regards to safety

concerns given the recent controversy surrounding various Cox 2 inhibitors amongst other drugs) will present another challenge to the industry, as will regulatory changes including the impact of the Deficit Reduction Act of 2005 and changes to the FDA which has also come under increased scrutiny in recent years.

As in the previous performance period, the industry will have to continue to evolve over the outlook period in order to adapt to its changing environment and the increased risks it is currently facing, including legislative, regulatory, product development and reputation risks. This will see the re-evaluation of corporate strategies and the adoption of new business models (including an increasing reliance on contract manufacturing organizations and contract research organizations) as industry participants seek to become leaner and more efficient organizations, the greater use of new technologies as well as a change/rationalization in product portfolios as companies adapt to the new realities of the global health market and in some instances reinvent themselves. It will also see the industry focus on the development of products targeting unmet medical needs in an attempt to maintain the strong revenue growth path that it has historically been accustomed to. Bolt on acquisitions may become an increasingly frequent characteristic of the industry as players attempt to fill gaps in their pipeline, acquire access to new technology platforms (including biotechnology) or expand into new geographic markets.

Excerpts from ***Pharmaceutical and Medicine Manufacturing in the U.S.***, IBISWORLD Industry Report, November 2007

33451 – Navigational, Measuring, Electromedical and Control Instruments Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing navigational, measuring, electromedical, and control instruments. Examples of products made by these establishments are aeronautical instruments, appliance regulators and controls (except switches), laboratory analytical instruments, navigation and guidance systems, physical properties testing equipment, and watches and clocks.

The major determinants of demand for the Navigational, Measuring, Electromedical, and Control Instrument Manufacturing industry include:

- Technological changes. Demand increases with the development of new products, which can replace the functions of earlier equipment much more efficiently.
- The age of the capital equipment in hospitals research laboratories, industry, schools, and tertiary institutions.
- The short-life span of equipment, averaging 3 to 5 years and sometimes as little as 18 months. Depending on the product, the life span of a good influences the need to replace that particular good.
- The health of the general population. With conditions such as heart disease, cancer, aids, and hepatitis on the increase, the demand for specialized instrumentation and equipment such as ultrasonic, laser, cardiographic and laboratory equipment has increased.

- Public and private equipment expenditure. The level of funding towards navigational, measuring, medical, and control instrument technology and innovations by government and the private sector influences the degree of new product development. At present the majority of funding is derived from private enterprise however the government also plays a significant role in the funding of startups and the expansion of the industry.
- The ability to patent new product innovations and other intellectual property rights. Protection of intellectual property encourages new product development.
- Changes in domestic and international regulations, such as more vigorous compliance and enforcement activities that may delay or prevent the approval of new products, can impact on export and import demand.

The life cycle stage of this industry is mature:

- Despite frequent technological advancements in this industry and considerably high levels of R&D expenditure, the US Navigational, Measuring, Electromedical, and Control Instrument Manufacturing industry is in the mature phase of its lifecycle.
- Industry gross product grew by an annualized 2.2% in the current performance period, similar to GDP growth.
- The Navigational, Measuring, Electromedical, and Control Instrument Manufacturing industry in the US is the global leader in medical device and technological innovation. Dominating in worldwide sales, the US searches to find new opportunities by supplying to developing markets abroad.
- The majority of participants have large budgets and R&D expenditure. These companies benefit from economies of scale and have the ability to purchase smaller startup companies in the industry.
- Over the past five years the number of establishments has diminished, falling by an annualized rate of 0.5%.
- The industry experiences intense competition both domestically and internationally and many companies participate in price competition.
- Introduction of new product developments take approximately 2 to 5 years before they can achieve worldwide market acceptance, as products.

Industry Outlook

IBISWorld forecasts that industry revenue will decrease at an annualized rate of 1% during the five years to 2012. Increased competition from products from low labor cost countries towards the end of the period is forecast to result in negative growth in these years. During the outlook period, IBISWorld estimates that the following factors will influence growth in the Navigational, Measuring, Electromedical, and Control Instrument Manufacturing industry in the US: the overall reduction in import penetration, the health and age of the population; and advances in navigational, measuring, medical, and control instrument technology.

R&D expenditure is forecast to rise at a healthy rate at least until 2012. The demand for product improvements and innovation will require testing and measuring equipment. Areas of the economy that are forecast to be important in the future are energy, health, biotechnology, electronics and conservation. Within the electromedical and electrotherapeutic apparatus

segment the pressure to provide cost-effective and efficient devices, which could effectively treat more patients, has led to industry participants spending more R&D dollars on developing computer-assisted equipment. However, as other countries begin to produce this type of equipment, and other types of industry products, this will continue to lower industry growth.

The industry is forecast to enter a period of negative revenue growth from 2007. Increased levels of imports from China and other low labor-cost countries, as well as declining export income, are expected to push industry revenue down by 1.5% during the year to $110.24 billion. Lower prices and volumes are expected to result in value added falling by 1.7% to $70.04 billion.

During the remaining years of the outlook period IBISWorld forecasts that the Navigational, Measuring, Electromedical, and Control Instrument Manufacturing industry in the US is expected to continue to experience negative growth in revenue. In 2009 industry revenue is expected to fall by 0.9% to $107.22 billion for the year as pricing and import pressures continue. In 2011, revenue is estimated decline by 1.2% to $104.57 billion, while in 2012 revenue is forecast to increase slightly by 0.4% for the year as exports decrease and imports increase. Value added is forecast to decline by 1% during the year to $66.15 billion and then rise by 0.9% to $66.75 billion in 2012.

Over the period it is expected that the Search, Detection and Navigational Instrument segment in the US will contribute much of the growth in industry revenue. Advancements in technology in this segment combined with increased government and private equipment expenditure will add to industry demand.

In the five years to 2012, the Navigational, Measuring, Electromedical, and Control Instrument Manufacturing industry in the US is expected to move into a decline phase of its life cycle. Value added is forecast to decrease by an annualized rate of 1%, which is below the overall level of expected economic growth of 3.1% per annum during the same period. Employment levels, establishment numbers and total industry wages are expected to decline due to consolidation within the industry and cost-cutting by individual firms.

Excerpts from ***Navigational, Measuring, Electromedical and Control Instruments in the U.S.***, IBISWORLD Industry Report, November 2007

33911 – Surgical and Medical Instrument and Appliance Manufacturing in the U.S.

This industry comprises establishments primarily engaged in manufacturing medical equipment and supplies. Examples of products made by these establishments are laboratory apparatus and furniture, surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, dentures, and orthodontic appliances.

The following factors determine demand for industry products:

- Population demographics

- Government expenditure
- Technological innovation

The aging American population and the trend towards more consumer-oriented health care products and devices is increasing the demand for the medical equipment and supply industry to develop technologies and products that enable patients to take a more active role in their own health care. The prevalence of conditions such as heart disease, cancer, aids, and hepatitis is increasing, which in turn increases the demand for specialized instrumentation and consumables. This demand is derived from the health of the population and the methods employed by medical professionals to treat disease, illness and injury.

Advances in science and engineering involving microelectronics, biochips, genomics, and biomaterials allows for the development of new products, such as high performance synthetic materials, which can be produced in high volume and at a reduced cost.

The level of funding towards medical technology and innovations by government and the private sector influences the degree of new product development. At present the majority of funding is derived from private enterprises however the government also plays a role. Government programs in the US such as Medicare and Medicaid, private healthcare insurance and managed care plans subsidize income available for expenditure on medical services.

The life cycle stage of this industry is mature:

- Between 2003 and 2007, IBISWorld estimates that GDP grew at an average annualized rate of 3.1% while industry value added grew at an average annualized rate of 3.2% over the same period of time.
- Most product innovation within the industry enhances existing products rather than creating new markets. Introduction of product developments take approximately 2-5 years before they can achieve worldwide market acceptance, as products are subject to rigorous testing and pre-market approvals.
- The majority of participants have large budgets and R&D expenditure. These companies benefit from economies of scale and have the ability to purchase smaller startup companies in the industry.
- The industry experiences intense competition both domestically and internationally and many companies participate in price competition. In recent years foreign companies have gained greater domestic and worldwide market share.
- In 2006, Boston Scientific acquired Guidant Corporation, a manufacturer of cardiac and peripheral vascular repair systems. Boston Scientific was engaged in an intense battle with Johnson and Johnson for the ownership of Guidant.

Industry Outlook

IBISWorld forecasts that over the next five years, industry revenue will grow by 15.4%, growing at an average annualized rate of 2.9%.

The future of the Surgical and Medical Instruments and Appliances Manufacturing industry is primarily dependent upon technological innovation and an aging population.

A key driver of industry revenue growth is the number of surgical procedures performed in the US. This number is set to grow by 16.8%, from an estimated 33.4 million in 2007 to more than 39 million in 2012.

The baby-boomer demographic is set to become the industry's largest market over the five years ending 2012. The number of people over the age of 65 is forecast to grow at an average annualized rate of 2.4% over the five years to 2012, while the total US population is forecast to grow at an average annualized rate of 0.9% over the same period. This will translate into a significant proportion of the population over the age of 65 by 2012. The older the population the greater the dependence upon health services such as surgery.

Rapid economic growth of developing countries, China, India, Russia, leading to the provision of improved healthcare services. Demand for surgical and medical instruments in these countries is forecast to increase substantially during the outlook period.

One of the greatest challenges for firms going forward will be cost containment. Government price controls with mandatory discounts, competitive pricing pressures, parallel imports from low-wage countries and increasingly stringent Government regulatory requirements.

Growth in plastic surgery procedures will also drive industry revenue growth. The average age of those undergoing such procedures is declining and the emergence of less invasive surgical means is making such procedures attractive to those who previously would not have considered undertaking it.

Greater education and improved drug therapies will reduce the number of stent inplantment procedures. Drugs such as Lipitor have proven successful in reducing blood cholesterol which leads to the build up of plaque on artery walls eventually leading to stent inplantment or coronary by-pass surgery.

New product introductions which enhance existing products will boost industry revenue growth in 2008. During the year, IBISWorld forecasts that industry revenue will increase by 4.3%, and rise a further 0.5% in 2009. Between 2010 and 2012, industry revenue will be driven by the baby-boomer demographic. IBISWorld forecasts that industry revenue will increase by 4.1%, 1%, and 4.5% over this period.

The number of industry establishments is expected to continue to decline as the industry continues to consolidate. Over the outlook period, the industry is forecast to lose 1724 establishments, taking with them an estimated 30,358 jobs. However, IBISWorld forecasts that existing establishments will gain 53,535 jobs over the next five years as the industry continues to grow. In net terms, there will be an employment gain of 23,177 jobs within the industry, causing the average number of jobs per establishment to increase from 18 to 21, and the average real wage to increase by 2.5% over the outlook period.

Excerpts from ***Surgical and Medical Instruments in the U.S.***, IBISWORLD Industry Report, September 2007

Value-Added Food Products Manufacturing

Definition:

NAICS Codes

31123	Breakfast Cereal Manufacturing
31134	Nonchocolate Confectionery Manufacturing
31141	Frozen Food Manufacturing
31181	Bread and Bakery Product Manufacturing
31182	Cookie, Cracker and Pasta Manufacturing
31183	Tortilla Manufacturing
31191	Snack Food Manufacturing
31194	Seasoning and Dressing Manufacturing
31199	All Other Food Manufacturing

Recommended Research Filters

When marketing to this industry, we recommend targeting companies within the following parameters.

Sales:	$10m minimum
Employment:	100 minimum
Geographic Scope:	National
Growth:	10% in sales or employment (over two years)
Events:	Predictive events such as executive change, merger/acquisition, new markets, new products/services, new contract, and IPO.

Value-Added Food Products Manufacturing Universe	
Companies within geographic scope	41,036
With 100+ employees and $10m+ sales	737
With growth and/or events	154

Estimated with D&B Market Identifiers and Applied Marketing Sciences data.

Industry Importance Factors

Site location factors that have a high importance to the food manufacturing industry include geographic proximity to market, especially close and easy access to interstates. High water and sewage treatment capacity is also vital. The cost of transportation services and dependable energy is important. Also necessary is access to intermediate manufacturing products, a workforce containing handlers, equipment cleaners and laborers, the reliability of the workforce, and regulatory policies.

Labor Outlook

NAICS Code	Industry	1994 Jobs	2004 Jobs	2014 Jobs	1994-2004 Change	2004-2014 Change
3112	Grain and Oilseed Milling	69,000	60,500	51,400	-12%	-15%
3113	Sugar and Confectionery Product Manufacturing	99,400	74,900	61,400	-25%	-18%
3114	Fruit and Vegetable Preserving and Specialty Food Manufacturing	209,900	177,400	155,500	-15%	-12%
3118	Bakeries and Tortilla Manufacturing	306,300	280,500	284,700	-8%	2%
3119	Other Food Manufacturing	149,100	160,000	162,500	7.3%	2%

Source: U.S. Bureau of Labor Statistics, Monthly Labor Review, November 2007

31123 – Breakfast Cereal Manufacturing

The US Breakfast Cereal Manufacturing industry acquires raw materials such as corn, wheat, flour, fruit sugar, malt extract, rice and salt from its various processors and transforms such ingredients into ready-to-eat and hot cereals as well as cereal bars. It also buys raw materials such as plastic and paperboard containers from their manufacturers to package these foods. The breakfast cereals are then sold to grocery wholesalers and retailers as well as the foodservice industry. This industry comprises establishments primarily engaged in manufacturing breakfast cereal foods.

The major factors which impact on the total level and per capita consumption for breakfast cereals and bars include:

Changing lifestyles: Recent years have seen an increase in the demand for convenience foods as a result of changing lifestyle patterns and the growing number of "time poor" consumers. This in turn has prompted an increase in the demand for prepared, single serve cereals (that is, portable and ready-to-eat cereals) at the expense of the more traditional types of cereals and cooked breakfasts. This has given rise to increased sales of cereal and bars and high nutrient energy drinks.

Product innovation: New product introductions with additional flavors and additives can help to boost demand for these products, which is believed have improved in recent years.

Competition from substitution products: These include alternative breakfast foods such as muffins, bread, bagels etc, as well as from other foods, such as cooked breakfasts.

Health, nutrition and diet: These factors play an important role in influencing downstream consumer demand. Concerns about the calorific and sugar content of various breakfast foods has an adverse effect on industry sales. Meanwhile, the increasing awareness of the link between certain foods and diseases such as cancer and heart disease has resulted in much greater

awareness of the importance of high fiber diets, which in turn has encouraged the consumption of wholemeal, bran and mixed grain cereal products. Kellogg, for example has recently introduced a new breakfast cereal called `Smart Start Healthy Heart' that can help lower blood pressure and cholesterol.

Household Incomes: While the demand for consumer goods generally is positively related to real disposable income, this is not true of staples such as cereal products. Rather, higher incomes facilitate purchase of higher quality, more nutritious foodstuffs and eating breakfast at cafes, rather than at home. This has the affect of reducing demand for cereal and increasing demand for substitute foods.

The life cycle stage of this industry is mature. Breakfast cereal is not the type of product that is impacted by rising disposable incomes, rather, it is something that people buy at the grocery store without giving it a second thought. Competition from substitutes remains strong and is intensifying. For the most part, the number of firms and establishments has remained stagnant, principally due to entry barriers. Also the products made by this industry are well entrenched and innovation is minimal. While volumes consumed have increased modestly in recent years, stagnant prices have restricted revenue and value added growth a little.

Industry Outlook

Continued declining growth of around 7.3% to $10.8 billion for cereal products is likely to occur for 2008 as a result of low production levels of most grains, putting pressure on prices, along with changes in consumer diets, with a large proportion of consumers raising their intake of more convenient substitute products as they continue to be time-poor. By 2009, revenue is expected to increase by 0.2% as most brands will continue to serve the purpose of being "cash cows" for major players, thus financing investment into other so-called growth industries. However, modest price increases are likely.

The industry's performance may possibly decline marginally in 2010 as strong competition from substitute foods, such as muffins, waffles and croissants, will keep a lid on such growth. Although the proportion of people that are skipping breakfast is expected to continue, breakfast cereal products are expected to remain an essential part of the population's nutritional needs, with domestic cereal manufacturing revenue anticipated to decline by about 0.5% to $10.79 billion.

Price stagnation is likely for this industry during 2011 as volumes rise with population growth rates along with strong competition from alternative breakfast foods and the number of people missing breakfast altogether will inevitably continue with busy lifestyles. The expected result for US breakfast cereal producers is that revenue will probably fall by about 0.6% to $10.7 billion throughout the year.

It is likely that this trend will continue on into 2012, with sales decreasing by 2% to $10.5 billion as consumers continue to prefer alternative breakfast foods, while an increasing proportion that live in the cities will continue to eat out for breakfast, and turn to more wholesome, cooked breakfasts such as eggs, fried potatoes and bacon and sausages. Along with this, consumers are expected to become increasingly health conscious, and major players will likely identify this and

continue to modify or innovate cereals that are healthier and contain more benefits for consumers.

Breakfast cereal manufacturing employment is expected to fluctuate during the outlook period due unstable wages for the industry, causing productivity levels to rise and fall. Therefore, employment is predicted to fall by around 7.2% for the first year to about 13,352 workers, because of a drop in the number of firms. After rising in 2011, it should decrease again in 2012 by around 1.5% to total 12,801 workers.

The wages/salaries' share of industry revenue is likely to fluctuate moderately for this well established industry during the outlook period as a result of labor conditions. The wages/salaries will start off at 6.8% of industry sales, remaining stable throughout, to account for 6.8% of industry sales by 2012.

Excerpts from ***Breakfast Cereal Manufacturing in the U.S.***, IBISWORLD Industry Report, September 2007

31134 - Nonchocolate Confectionery Manufacturing

The Non-Chocolate Confectionery Manufacturing industry makes a range of sugar and non-sugar candies as well as chewing gum from ingredients such as starch, fruit, preservatives, emulsifiers, flavorings etc. which are purchased from manufacturers. The products are then sold to confectionery and grocery wholesalers and retailers. This US industry comprises establishments primarily engaged in manufacturing non-chocolate confectioneries. Included in this industry are establishments primary engaged in retailing non-chocolate confectionery products not for immediate consumption made on the premises.

The major factors determining the level of demand for non-chocolate confectionery in the United States are:

- Business activity: The level of business activity in downstream confectionery product wholesaling businesses, grocery stores and other specialist retailing enterprises.
- Disposable household incomes and wages growth: This allows more money to be spent on small luxuries when the weekly groceries are purchased.
- Population growth and age distribution: An increasing population will generally lead to higher sales and increases in certain age groups, such as 3-12 year olds, will also contribute to rising demand for confectionery.
- Price: Price is an important demand determinant because parents may refuse to purchase high value item confectioneries for their children since it is a non-essential food. This is why non-branded candies account for a significant portion of the products sold in supermarkets.
- Substitute products: Chocolate competes with non-chocolate confectionery while healthier snacks are also a source of competition for candy producers. Other foods competing with this industry include savory snacks.
- Advertising: The industry spends a reasonably high share of its sales revenue on advertising, so this impacts on which brands are purchased at the retail level.

- Distribution: Since most confectionery is purchased on impulse, retail presence and the prevalence of convenience stores can drive demand. Vending machines also provide ready availability of confectionery for consumption.
- Seasonality: Confectionery sales are higher during particular seasons, especially at Halloween and Christmas.
- Health and Nutrition: The industry's products are often perceived as being unhealthy, since they are high in sugar and calories. Thus, non-chocolate confectionery is often rejected by dieters and by people concerned about possible links between obesity, heart disease, not to mention diabetes. Increased concern about dental health has also discouraged consumption.

The life cycle stage of this industry is mature. Consumers are increasingly becoming health conscious, causing market growth to slow. There has also been increased competition from imports and chocolate products.

Industry Outlook

Improved industry growth is anticipated for 2008 as this mature industry increases prices once again to raise revenue as volumes shipped are again marginally higher due mostly to population growth. Therefore, revenues for American-based non-chocolate candy makers are anticipated to rise by approximately 5.2% to $7.23 billion by year-end. It is expected that by this stage a number of substitute products, in particular chocolate, will continue to challenge this industry and attribute to weaker sales.

Similar conditions to the previous year are predicted for 2009 and 2010 and so the industry should enjoy a relatively stable period late in the outlook period. The predicted result for sales revenues for US non-chocolate confectionery makers is a rise of 1.3% and 0.6%, respectively to $7.37 billion.

The most popular demographic for confectionery is the Hispanic market, and being one of the fastest growing population demographics in the US will help contain revenue at a reasonable level, along with continued product innovation that appeals specifically to children. These factors are likely to see revenue continue to increase marginally in 2011. However as the industry continues to be in a mature state by 2012, growth is likely to stagnate and fall by just 0.1%. There could also be pressure added to this industry from substitute products such as chocolate, which could dampen sales.

The level of this industry's employment is expected to rise moderately in 2008 to 22,985 as revenue and activity increases at a steady rate. Up until the end of the outlook period, employment will continue to increase at a consistent rate, impacted by higher revenue and activity and so the total number of people employed by the US non-chocolate candy making industry is predicted to be 24,168 by 2012.

Wages/salaries' share of industry revenue is expected to remain unchanged at 13.4% in 2008. Over the next year the ratio will increase up to 13.5% by 2009 as manufacturers attempt to increase dependence on non-skilled labor while industry prices could possibly fall. By 2010, IBISWorld predicts that the ratio of labor costs to industry sales revenue will be down 0.1 of a

percentage point to approximately 13.4% by year-end as a result of weaker salaries, before remaining stable as relatively unchanged employment levels allow for moderate average wage and salary increases.

Excerpts from ***Nonchocolate Confectionery Manufacturing in the U.S.***, IBISWORLD Industry Report, November 2007

31141 – Frozen Food Manufacturing

The US Frozen Food Manufacturing industry purchases ingredients such as fresh fruit and vegetables, grain mill and baked products (such as pastries) and processed meats in order to produce frozen food products for sale to grocery wholesalers, retail food stores, the hospitality industry and for export. These foods include only frozen fruit (including fruit juices), vegetables, pies, dinners, entrees, side dishes, pizza, whipped toppings, waffles, pancakes and french toast. It does not include fish or seafood products. This industry does not grow its own ingredients, rather it processes them into new food products and sells them to an immediate buyer so it does not include product distribution to consumers. This industry comprises establishments primarily engaged in manufacturing frozen fruit, frozen juices, frozen vegetables, and frozen specialty foods (except seafood), such as frozen dinners, entrees, and side dishes; frozen pizza; frozen whipped toppings; and frozen waffles, pancakes, and french toast.

The major demand determinants for frozen food products include:

- Price: While the relative price of processed frozen foods and changes in real disposable household income influence demand, other factors have had a greater impact on consumption levels.
- Quality: The industry may lose sales if the quality of frozen food is inferior to fresh food.
- Substitutes: Fresh food consumption has increased at the expense of processed products. This reflects, in part, the greater availability and improved quality of fresh products due to better storage and transport facilities. For example, the increased variety of fresh vegetables has increased competition with processed vegetables. Per capita consumption of frozen vegetables has declined from 79.3lbs in 2000 to an estimated 77.3lbs, while per capita consumption of fresh vegetables has increased from 422.8lbs in 2000 to an estimated 423.2lbs in 2005.
- Nutrition: Health considerations have also encouraged consumers to switch from frozen to fresh foods. In recognition of this, producers are becoming increasingly determined to improve the nutritional value of their goods.
- Lifestyle: Changes in lifestyles have increased the demand for convenience products, and this has encouraged the consumption of processed products, such as ready-made "heat and serve" meals. In particular, consumers are becoming more health conscious but increasingly time poor. As a result, there are many frozen foods that are easy to prepare, yet reasonably healthy.

The US Frozen Food Manufacturing industry is in a mature phase of its life cycle. Frozen foods face strong competition from non-frozen foods as well as increasing competition from imports of

both frozen and fresh-packaged foods. However, improvements in new technologies which snap freeze foods may have the ability to maintain the quality of taste so that frozen foods might in the near future rival fresh food. This could result in a new growth phase for volumes sold by frozen food manufacturers in the United States.

Industry Outlook

The Frozen Food Manufacturing industry will be influenced by consumer health concerns, as a large proportion of consumers seek frozen foods that are healthier. Major players have recognized these trends and therefore product innovation is expected to be strong over the coming years, as their main goal is to satisfy consumers who are increasingly time-poor and seek a product that is healthy. The constant threat of fresh foods is expected to continue to put pressure on sales, perhaps to a lesser extent than in previous years, as manufacturers apply more strategic marketing tools to the product. IBISWorld predicts that during the five years to December 31, 2012, revenue from the US Frozen Food Manufacturing industry will increase by an annual average rate of 2.8% to $28 billion.

The industry is expected to increase at a moderate rate in 2008, as per capita consumption is expected to be stagnant for frozen vegetable, meat, flour and cereal meals while dietary trends and consumer lifestyles are expected to continue to impact on what consumers choose to eat. Therefore, a 3.1% increase in revenue to about $25.2 billion is forecast for the year.

During 2009, frozen food processing in the United States will probably continue to innovate new products which will boost sales if backed up by aggressive marketing campaigns. Therefore, some years will demonstrate good revenue growth off an already large base in the medium-term. Hence, a rise of about 1.7% to $25.6 billion is forecast for 2009.

Industry conditions should remain positive in 2010 with revenue rising by about 2.9% to $26.3 billion as time-poor people continue to demand convenient meals cooked quickly in the home and so modest price and volume gains are expected as a result. However, import competition will continue to keep a lid on potential price growth throughout the year.

As the nation continues to become time-poor and population increases, revenue is expected to rise by about 3.1% to $27.1 billion in 2011. Similar conditions are expected for 2012, with repeated growth of around 3.2%. Product innovation is expected to begin stagnate by this time, while increasing import competition could have an effect on revenue growth.

Throughout the full-year 2008, employment may increase to around 100,376 workers as a result of productivity losses. Employment will probably continue to increase at a marginal rate after that time as continued demand and revenue for the industry's products, and producers begin to reap some further productivity benefits from previous years' investment in new plant and equipment. Thus, IBISWorld expects that employment will be up to approximately 109,938 people by the end of the outlook period in December 2012.

The wages/salaries' share of industry revenue is expected to remain relatively stable during the outlook period, increasing by just 0.1 percentage point to reach 11.7% in 2008 as tighter cost

controls are implemented and labor productivity increases. After that time, average wage increases are expected to increase marginally along with employment increases and so the wages/salaries share of revenue is predicted to remain stable at around 11.6% by 2012.

Excerpts from ***Frozen Manufacturing in the U.S.***, IBISWORLD Industry Report, October 2007

31181 – Bread and Bakery Product Manufacturing

The US Bread and Bakery Product Manufacturing industry acquires raw materials such as flour, starch, sugar, meat, dried fruit, emulsifiers, flavorings, preservatives, additives, gluten, vitamins, food acids etc. and processes them into consumer food products like bread, doughnuts, cakes, pies, pastries etc. These are then sold to supermarkets, convenience stores, foodservice providers and other specialty retailers while many bakeries also sell their products directly to the public for cash payment. This industry comprises establishments primarily engaged in manufacturing fresh and frozen bread and other bakery products.

The major determinants of demand for bread and other bakery foods in the United States include:

- Changing lifestyles: Changing lifestyle patterns has had an important impact on the demand for the products of the cakes and pastries industry by reducing home baking and increasing the demand for commercially baked products. At the same time however, the demand for convenience in food items has forced cake and pastry producers to compete with the producers of a wide range of other snack foods. Changing lifestyles have also had an important impact on the demand for the products of the bread industry. In many cases the main meal of the day is no longer the evening meal. Consequently sandwich lunches may be replaced with a hot meal eaten out.
- The availability of kitchen appliances such as microwaves and home freezers has also influenced the demand for cakes and pastries. The former, until recently, disadvantaged pastries which thaw and/or heat poorly in the microwave. The latter facilitated significant growth in all types of frozen cakes and pastries. The growth in home freezer usage affected bread consumption by reducing wastage by enabling shoppers to take advantage of supermarket specials which tends to depress the average value of sales.
- Processing technology: Since methods to combine ingredients and freeze certain baked pastries and breads have improved product quality in the past 5-10 years, the volume of sales has increased.
- Health, Nutritional and Dietary Concerns: Consumer concern about diet and nutrition has stimulated growth in demand for products with a health food image, such as wholemeal products, quiches, carrot cakes etc. However, demand for products which are perceived to be high in calories (e.g. cakes and Danish pastries) have tended to decline from time to time, but often pick up again. Consumers are also concerned about the calorific content of bread and bread products. However, increasing awareness of the link between certain foods and diseases (such as cancer and heart disease), has resulted in much greater awareness of the importance of high fiber diets. This encouraged the consumption of wholemeal and mixed grain breads.

- Ethnicity of the population: The industry has been greatly influenced by the change in the ethnic structure of the American population. These trends have supported the development of bread, cake and pastry producers specializing in ethnic products. For example, Bimbo Bakeries USA targets its brands (Bimbo, Tia Rosa and Marinela) at America's growing Hispanic communities.

The life cycle stage of this industry is mature. Per capita consumption of bread products is stagnant due to strong competition from substitute foods, such as snacks and restaurant foods. In the past five years, the industry has developed new production techniques that led to the development of new cake products. Otherwise, technology has essentially remained the same. Ownership changes have occurred in the industry, with more franchised retail bakeries while large corporations, such as Sara Lee, have increased ownership of wholesale bakeries. A few new products have been invented by retail bakeries, some of which have succeeded in the market so far while some have not, with a majority of major players introducing healthier products. Generally, however, products are clearly segmented.

Industry Outlook

The Bread and Bakery Product Manufacturing industry will rely largely on population growth and product innovation that focuses on healthier bread and bakery products, which will potentially boost sales volumes. Growth in substitute foods and new dietary trends will possibly have a strong impact on revenue. IBISWorld forecasts that during the five years to December 31, 2012, revenue generated by US bread and bakery product manufacturers will increase by an average annual rate of 1.9% to $38 billion (in constant 2006 prices).

After moderate growth of 3.5% expected in 2008 because of new product introductions including an increase in organic bakery products which are likely to be popular, revenue will stabilize with little growth in 2009 as a result of alterations to advertising budgets of this and competing industries like snack food manufacturing. Hence, low revenue growth of about 0.4% to $35.9 billion is possible. Results for 2010 will increase at a slightly higher rate, with modest growth of 2% to $36.6 billion, as a result of consumption increasing.

Makers of bread and other baked foods in the United States will be reliant on domestic population growth in the medium to long-term as the major driver of future sales since most people are not likely to raise their daily consumption of such goods. Therefore, any annual sales growth by 2011 and 2012 will be very modest and so IBISWorld predicts a rise of around 1.8%, respectively, taking revenue to $38 billion by 2012.

The number of workers employed by US bread and bakery product manufacturers is likely to increase very modestly for 2008 as industry trading conditions continue to rise slightly. The result is that employment will be up 0.7% to about 219,876 by the end of 2008. No change is anticipated for the remainder of the outlook period as modest industry growth is likely to result in higher average wages in return for productivity gains. By the end of 2012, there is estimated to be 228,986 employees.

The ratio of wages/salaries to industry revenue is forecast to remain stable from 24.1% during 2008 to 24.4% by 2012. Therefore, no significant increase in productivity or capital intensity is probable during this period as a whole.

Excerpts from ***Bread and Bakery Product Manufacturing in the U.S.***, IBISWORLD Industry Report, October 2007

31182 – Cookie, Cracker and Pasta Manufacturing

The US Cookie, Cracker and Pasta Manufacturing industry makes these products from ingredients purchased from other food manufacturers - which include flour, sugar, starch, salt and seasoning, emulsifiers, flavorings, syrup, preservatives, additives, gluten, vitamins, food acids etc. The end products are then packaged and ready for human consumption. They are distributed to grocery wholesalers, specialty food stores and food service contractors in return for payment. This industry comprises establishments primarily engaged in one of the following: (1) manufacturing cookies and crackers; (2) preparing flour and dough mixes and dough from flour ground elsewhere; and (3) manufacturing dry pasta. The establishments in this industry may package the dry pasta they manufacture with other ingredients.

The major determinants of demand for cookies, crackers, prepared dough's and dried pasta in the United States include:

- Household incomes: While the demand for consumer goods is generally positively related to real disposable income, this is not necessarily true for products such as pasta. Rather, higher incomes facilitate the purchase of higher quality, more nutritious foodstuffs. However, higher real disposable income may also propel consumers to purchase cooked pasta in restaurants, which will ultimately increase demand for dry pasta. Incomes may affect cookie and cracker purchases to the extent that these are non-essential foodstuffs, and hence, sales may decline during harder economic times.
- Changing lifestyles: Changing lifestyle patterns in recent years has had an important impact on the demand for cookies and crackers since time poor consumers are likely to snack on these and other foods, instead of prepared meals. These time constraints are also positive for pasta purchases because this product is fast and easy to cook. At the same time, however, the demand for convenience in food items has forced cookie and cracker producers to compete with the producers of a wide range of other snack foods.
- Health, Nutritional and Dietary Concerns: Consumer concern about diet and nutrition has stimulated growth in demand for products with a health food image, and so has hindered per capita growth of cookies, and to a lesser extent crackers. This increased health concern has lead many brands to recently remove trans-fatty acids, which are linked to increased risks of heart disease. Meanwhile, pasta is generally accepted to be a good source of carbohydrates, and hence, is favored by athletes the night before training or competing.
- Age structure of the population: for cookies, children are much more likely to demand the purchase of cookies at the supermarket. Therefore, as fewer adults have children and the population ages, demand for cookies will diminish.

- Competition from substitution products: These include snack foods such as chips and health food bars, as well as from other foods, such bread and bakery products and fruits.

The life cycle stage for this industry is mature. There has been increased competition from imports. Also, domestic demand has remained static due to increased competition from alternative foods. For the most part, technology within the industry is advanced, but product innovation occurs from time-to-time.

Industry Outlook

The outlook for the US Breakfast Cookie, Cracker and Pasta Manufacturing industry is for modest positive growth, as there is expected to be a positive outlook for raw material pricing, partially offset by strong competition. Positive growth is likely to continue for major players, with strong product innovation expected, largely focusing on added flavors and more health benefits for consumers, particularly in the cookie segment. IBISWorld forecasts that during the five years to December 31, 2012, revenue generated will increase by an average annual rate of 0.22% to $18.7 billion (in constant 2006 prices).

An improvement in revenue is expected for 2008, anticipated to increase by about 0.4% to $18.6 billion. Volumes will probably increase a little while price gains of no more than 1% may also assist revenue gains during the year as competitive factors restrict prices growth.

IBISWorld forecasts that during the five years to 2012, value added will increase by about 0.3% per annum to $11.57 billion. Modest gains for value added are expected again during 2008. Therefore, a rise of about 0.5% to $11.4 billion (61.7%) of revenue is predicted during that year.

A similar situation is expected for 2009, as it is possible that sales will rise by about 1.1% to $18.8 billion, which will most likely be driven by slightly higher pricing for at least some of the industry's products as the volumes demanded are not likely to increase measurably because of competition from substitutes. Value added is anticipated to increase in line with revenue by around 2%, as a result of lower raw material costs.

By 2010, revenue is expected to increase by 0.5% to $18.9 billion, as volume and price growth is expected to occur, while more favorable trading conditions will help improve growth levels. Moderate increases in revenue will enable value added to increase by 0.5% to $11.7 billion (62.3% of sales revenue).

By 2011, revenue is expected to increase by just 0.1% to $18.87 billion, as a result of stagnant demand, and increased competition for substitute products. With higher raw materials costs expected, value added is estimated to fall by around 0.1% to $11.7 billion. It is thought that revenue will increase by around 2.8% in 2012, as the industry continues to be in a mature cycle and major players continue to innovate new products that appeal to changing consumer demands.

Higher sales and rising industry value will almost certainly cause employment to continue increasing during the majority of the outlook period. Hence, employment will probably increase from 44,852 currently to about 45,212 in the first year of the outlook period. It will continue to rise thereafter as manufacturers decrease their capital intensity in a quest for production efficiency to slow. Therefore, IBISWorld predicts that approximately 49,085 people will be employed by US cookie, cracker and dried pasta processors during by 2012.

The ratio of wages/salaries to industry revenue is expected to be down marginally at 10.2% during 2008 and down to 9.9% by 2009, driven by increased capital intensity (which will decrease the demand for labor). For the remainder of the forecast period, this ratio is forecast to increase marginally to around 10.2%.

Excerpts from ***Cookie, Cracker and Pasta Manufacturing in the U.S.***, IBISWORLD Industry Report, September 2007

31183 – Tortilla Manufacturing

The US Tortilla Manufacturing industry comprises establishments primarily engaged in manufacturing tortillas. It purchases ingredients which include flour, corn and corn starch, salt, seasoning, sugar, emulsifiers, flavorings, preservatives, additives, gluten, vitamins, food acids etc from other food manufacturers and acquires flexible and paperboard containers packaging to store and sell the tortillas. The final product is sold to grocery wholesalers and retailers, caterers and other foodservice contractors who distribute to consumers.

The major determinants of demand for tortillas in the United States include:

- Ethnicity of the population. Since there is a growing Hispanic community in the US, consumption of tortillas is increasing because most prefer to consume foods which are traditional to their culture. Therefore, the ethnicity of America's society largely determines the type of foods purchased. As a result, immigration from Mexico and Latin America has a direct impact on the US Tortilla Manufacturing industry, while demand for exports to these countries also largely determines demand.
- Household incomes. Demand for consumer goods such as tortillas is generally positively related to real disposable income. Higher real disposable incomes may also propel consumers to purchase tortillas and other Mexican foods at restaurants, while lower income earners who prefer Mexican foods will tend to buy tortillas from supermarkets for consumption in the home.
- Changing lifestyle patterns, such as eating at restaurants and cafes can affect tortilla consumption both positively and negatively. On the positive side, people who like Mexican food will go out to eat it more often. However, competition from alternative foods increases with a higher incidence of people choosing to eat at restaurants and cafes. Recent years have also seen an increase in the demand for quickly prepared foods as a result of changing lifestyle patterns and the growing number of "time poor" consumers. This in turn has prompted an increase in the demand for tortillas.

- Health, Nutritional and Dietary Concerns. Consumer concern about diet and nutrition has stimulated growth in demand for products with a health food image, and so generally assists demand for tortillas since corn and flour products are low-fat and high in carbohydrates and vitamins.

The life cycle stage of this industry is growth. This is due to aggressive marketing by major manufacturers which has helped to drive domestic demand. There has also been increasing introduction of new products, with new flavors and varieties to suite ever changing consumer demands. International foods have grown in popularity with Anglo Americans which has led to higher per capita consumption.

Industry Outlook

IBISWorld predicts that during the five years to December 2012, the US Tortilla Manufacturing industry's revenue will increase at an average annual rate of 3.3% to $2.69 billion (in constant 2006 prices). This industry will become less reliant on population growth, as it was in the past, as a larger proportion of Americans are including tortillas in their diets. Product innovation is expected to continue as major players manufacture tortillas according to diverse consumer tastes and preferences, while a significant amount of growth is likely to continue emerging from increased demand from consumers who are adopting a healthier diet.

Conditions are expected to remain positive for this industry during 2008 as increasing consumption of Mexican-style foods continues in other cultural and racial groups. Modest volume and price growth is likely to continue again and per capita consumption is likely to rise moderately as Anglo Americans are consuming such foods more frequently, as they represent a simpler and faster cooking style, as well as suiting the health conscious. The result expected is that industry revenue will rise once again, up by about 2.6% to $2.35 billion.

Growth in domestic demand for tortillas is probable again during 2009 as populations rise through immigration while ageing of children into young adults is likely to increase per capita consumption of tortillas. Price increases will probably be due by around this time. However, growth in revenue will continue to be restricted by strong competition between Mexican and American tortilla producers. Thus, revenue may rise by a modest 3% to about $2.42 billion during the year.

Due to the relatively small size of this industry in relation to other food processing interests in the United States, IBISWorld believes that revenue growth will continue into 2010 as there will be additional space in the niche food market for the sale of high quality Mexican foods. Revenue is anticipated to rise by about 3.4% to $2.5 billion for the year.

Revenues will increase by around the same amount as the previous years, with continued product innovation along with health benefits widely recognized by consumers will see comfortable growth of just over 3% in 2011 and 2012.
A growth trend will most likely resume throughout most of the outlook period as shipments of tortillas continues to rise. Therefore, approximately 14,256 people are anticipated to be

employed within this industry by 2008, an increase of 5.2%. This rate will stabilize in line with sales for the remaining period, whereby it will a total of 15,478 employees by 2012.

The ratio of wages/salaries to industry revenue is expected to change very little from year-to-year, remaining between about 19.9% to 20.1% during the period to 2012. While tortillas will continue to be a labor intensive product to make in comparison to most other foods, some productivity improvements are expected as a result of greater consolidation of manufacturing facilities in recent times, which aimed to achieve greater economies of scale. This will be offset by higher average wages so the ratio is not expected to fall, resting at 20.1% of sales by 2012.

Excerpts from ***Tortilla Manufacturing in the U.S.***, IBISWORLD Industry Report, July 2007

31191 – Snack Food Manufacturing

The US Snack Food Manufacturing industry purchases ingredients such as milled corn and wheat, potatoes, sugar, food extracts, flavorings and preservatives for processing into consumer snack foods such as potato chips, corn chips, popped popcorn, pretzels, pork rinds, peanut butter and other similar snacks. It packages and sells such snacks onto grocery product wholesalers and sometimes directly to retailers and export markets in return for payment, but the industry does not include distribution to final consumers. This industry comprises establishments primarily engaged in one or more of the following: (1) salting, roasting, drying, cooking, or canning nuts; (2) processing grains or seeds into snacks; (3) manufacturing peanut butter; and (4) manufacturing potato chips, corn chips, popped popcorn, pretzels (except soft), pork rinds, and similar snacks.

Some of the major determinants of demand for snacks are:

- Household income levels. Typically, a rise in disposable income facilitates increased consumption. In some cases, this rule applies to food snacks. However, sometimes, an increase in income will encourage consumers to simply switch to more expensive food snacks rather than increase the volume of food snacks purchased. Given this, a long-term rise in income should see production shift from lower margin to higher margin products.
- Price of snack products. A rise in the price of food snacks can stem demand, however, intensive marketing of higher value products usually counters such a fall in demand through attracting alternative consumers.
- Presence of substitute food products. The presence of alternative substitutes can influence the level of demand for the industry's products. Food snacks compete with a wide range of other items, including cookies, crackers, cakes, bread and other baked goods, confectionery, yogurt and other high value added snacks.
- Introduction of new product lines. The introduction of new varieties in the marketplace can renew demand for food snacks. A growth area within the industry has been the development of special ethnic products, such as tortilla chips and dips.
- Changes in consumption trends and lifestyle. Tastes play a role in determining the demand for food snacks. Concern about health and nutrition has had a negative impact on the demand for some snack lines. However, these concerns have also stimulated the

development of items with a health food image that tend to have a high value added component - such as pretzels and nuts. Changes in lifestyle also affect the demand for food snacks. Historically, food snacks have been a convenient, relatively cheap substitute for cakes and cookies formerly baked at home and used for morning and afternoon teas, children's after-school snacks and the like. Recent years have seen an increase in the demand for convenience foods as a result of changing lifestyle patterns and the growing number of "time poor" consumers. This in turn has prompted an increase in the demand for prepared snacks.

The life cycle stage of this industry is mature. This is due to competition from substitute foods such as candy and baked products. In addition, there has been significant impact of government and non-government sponsored nutrition organizations to increase information dissemination of health impacts. Strong competition has resulted in reduced prices.

Industry Outlook

IBISWorld forecasts that during the five years to December 31, 2012, the US Snack Food Manufacturing industry revenue will experience moderate growth throughout the period, rising at an average annual rate of 3.8% to $26.7 billion (in constant 2006 prices). Even though consumers are becoming more health conscious, snacking is still playing a major part in consumer's lives, and is expected to continue to on a larger scale. As consumers continue to move towards healthier snacking, a large majority of major players are taking advantage of this opportunity to innovate products in the natural and organic arena.

This industry will continue to provide good revenues for most producers into 2008 since the products consumed are typically not affected by macroeconomic conditions. Therefore, modest growth of 2.8% to $22.8 billion is predicted for the year, driven by higher volumes offsetting lower pricing.

Revenue will probably continue to rise during 2009, up by about 3.7% to $23.7 billion. This will be the result of population and prices growth for the industry's products while per capita consumption for most savory snack foods will most likely remain steady. The industry will be aided by continued aggressive marketing techniques and production innovation aimed to appeal to young consumers.

This trend will most likely continue into 2010, with comfortable growth of around 3.8%, as a result of continued product innovation to suit ever changing consumer tastes. A key factor to positive revenue growth within this industry will be health and variety.

Further growth of around 4.2% is expected in 2011, with healthy snack foods, and in particular organic snack foods are thought to be one of the more significant drivers of growth. This trend will most likely carry on into 2012, with expected growth of around 4.4%, as major players successfully identify consumer trends.

Little change is forecast for employment levels during the next five years, increasing by 0.6% to about 49,852 by 2008 as industry shipment activity gains only a little ground. Employment is

forecast to increase at a steady rate of just below 1%, reaching 51,145 by the end of the outlook period.

Productivity increases should enable producers to reduce their dependence on labor a little during the outlook period, but the wages/salaries' share of industry revenue is forecast to remain relatively unchanged throughout the five year period, resting at just over 7% of revenue for the period.

Excerpts from ***Snack Food Manufacturing in the U.S.***, IBISWORLD Industry Report, September 2007

31194 – Seasoning and Dressing Manufacturing

The US Seasoning and Dressing Manufacturing industry buys a plethora of ingredients like starch, sugar, salt, vegetables and their extracts, whey powders, thickeners, food acids, mustard, grains and beans etc. from manufacturers and wholesalers and blends them into products such as mayonnaise and dressings, spices, extracts and dry food mixes. These are packaged in glass and plastic jars, flexible plastic and foil-coated paper acquired from manufacturers and then sold to grocery wholesalers and retailers, other food product manufacturers and the foodservice industry. This industry comprises establishments primarily engaged in one or more of the following: (1) manufacturing dressings and sauces, such as mayonnaise, salad dressing, vinegar, mustard, horseradish, soy sauce, tarter sauce, Worcestershire sauce, and other prepared sauces (except tomato-based and gravies); (2) manufacturing spices, table salt, seasoning, and flavoring extracts (except coffee and meat), and natural food colorings; and (3) manufacturing dry mix food preparations, such as salad dressing mixes, gravy and sauce mixes, frosting mixes, and other dry mix preparations.

The major determinants of demand for seasoning and dressing products are demand for foods which require these enhancers, such as savory snacks, meat, rice and other cooked meals. Therefore, the industry's demand is driven by the following factors:

- Household income levels. Typically, a rise in disposable income facilitates increased consumption, especially of meals eaten at restaurants and cafes. Given this, a long-term rise in income should see production shift from lower margin to higher margin foods.
- Price of foods. A rise in the price of some foods requiring seasoning and dressing can stem demand, however, intensive marketing of higher value products usually counters such a fall in demand through attracting alternative consumers.
- Introduction of new product lines. The introduction of new varieties in the marketplace can renew demand for food snacks. A growth area within the industry has been the development of special ethnic products, such as spicy sauces.
- Changes in consumption trends and lifestyle. Tastes play a role in determining the demand for foods. Concern about health and nutrition has had a negative impact on the demand for some snack lines and red meat but has increased the consumption of fish, chicken and rice. Changes in lifestyle also affect the demand for these foods. Recent years have seen an increase in the demand for convenience foods as a result of changing lifestyle patterns and

the growing number of "time poor" consumers. This in turn has prompted an increase in the demand for prepared 'heat and serve' type of meals. The impact on demand depends on the mix of ingredients used by downstream food processors.

The life cycle stage of this industry is mature. However, downstream demand from consumers, restaurants, other foodservice industries and food processors has increased overall. Also, the industry has rapidly introduced new products over the past five years since it is a highly dynamic marketplace whereby innovation is common.

Industry Outlook

IBISWorld forecasts that revenue generated by the US seasoning and dressing industry will increase by an average annual rate of 1.9 % to $14.68 billion during the period to December 2012, with population growth and increased product innovation being the key drivers of growth. While cultural influences, along with consumers being more adventurous in their choice of cuisine will also impact on growth in both a positive and negative way.

Medium-term growth prospects for the US seasoning and dressing industry will be reliant upon product innovation, not only within this industry but also within downstream foodservice and food manufacturing sectors. There is also expected to be an increased interest in natural and organic products, with a number of these products reaching the shelves with the necessary labeling. These factors may possibly stimulate another sales growth phase for the industry; while so too will the exploration of emerging international markets like China, Mexico and others. However, in 2008 and 2009 seasoning and dressing manufacturing growth will be modest and so industry revenue is expected to rise by 0.1% and 1.9%, respectively to $13.6 billion.

While increased import competition is expected for 2010 and 2011, increased product innovation supplemented by an increase in consumption for these products is likely to occur as consumers continue to try a variety of foods that are not part of their traditional diets. A continued increase in the Hispanic population will mean that products such as seasoning will likely increase. Therefore, sales revenue for producers of seasoning and dressing products is predicted to rise by about 2.4% over the two years to 2011, where revenue will total to $14.3 billion.

Results are expected to be relatively unchanged for 2012, with conditions expected to remain stable. Revenue is expected to increase by around 2.9%, as major players will rely on product innovation and increased consumption in line with population growth to fuel further growth.

Employment is expected to continue to increase over the outlook period as a result of productivity losses. Employment is expected to increase by 0.1% in 2008 as producers anticipate to recapture efficiency gains. From 2010 onwards there is expected to marginal increase as the industry is expected to experience stable growth. Therefore, IBISWorld estimates that the industry will employ approximately 35,935 people during 2012, compared to 33,039 in 2008.

The ratio of industry wages/salaries to sales revenue is expected to remain unchanged during the next five years, at 10.5%. This is expected as average wages and employment will begin to decline towards the end of the outlook period.

Excerpts from ***Seasoning and Dressing Manufacturing in the U.S.***, IBISWORLD Industry Report, November 2007

31199 – All Other Food Manufacturing

This industry comprises establishments mainly engaged in the manufacture of food. This excludes food like artificial sweeteners, animal food; grain and oilseed milling; sugar and confectionery products; preserved fruits, vegetables, and specialties; dairy products; meat products; seafood products; bakeries and tortillas; snack foods; coffee and tea; flavoring syrups and concentrates; seasonings; and dressings). This industry comprises establishments primarily engaged in mixing purchased dried and/or dehydrated ingredients including those mixing purchased dried and/or dehydrated ingredients for soup mixes and bouillon.

The following factors influence the domestic demand for food items supplied by this industry:

- Health and nutrition. Health considerations are encouraging consumers to adopt low fat and low sugar diets. This trend is having a mixed impact on this industry. Makers of artificial sweeteners are major winners from this trend, as are manufacturers of prepared salads. In contrast, ready-to-mix dessert manufacturers are adversely affected by the shift in consumption. Increasingly, manufacturers in this industry are responding to such dietary concerns by introducing healthier products.
- Competing products. The presence of competing products has an adverse impact on industry demand. Natural sweeteners for example, compete directly against artificial sweeteners produced by industries like the Other Basic Organic Chemical Manufacturing industry. The degree to which artificial sweeteners can provide the same properties of natural sugars plays a major role in determining their demand. Demand levels are also influenced by consumer preferences for particular product attributes. Although artificial sweeteners have lower calorific levels, they are often inferior in taste.
- Population growth. Since many of the food items produced by this industry face a maturing domestic market, domestic demand growth is largely a function of rising population. The US population rises and falls in response to changes in immigration numbers, death rates, and fertility rates. Intuitively, any rise in population will raise demand for food. Like many industrialized nations, the US is expected to record low population growth in the future.
- Activity in other user industries. Food manufacturers, grocery wholesalers and retailers are major purchases of this industry's output. Lower activity in any of these user industries has an adverse impact on demand levels. Ultimately demand from each market is derived from consumer demand for the products the manufacturer or sell.
- Household incomes. Any increase in real household disposable incomes will increase the propensity to purchase food items, including food produced by this industry. Household incomes are largely determined by general macroeconomic conditions and wage growth. In

the last decade, average reach wages have increased by around 1% annually. In the same period, growth in real GDP has averaged around 3.2%.

The life cycles stage of this industry is mature. There is limited product innovation within the industry, and there is widespread acceptance of products within the marketplace.

Industry Outlook

IBISWorld forecasts moderate growth in All Other Food Manufacturing over the Outlook period. Looking ahead, industry revenue is projected to increase from $21.7 billion in 2008 to $24.3 billion in 2012 (2006 dollars). Growing by an annualized average rate of 2.9%, the industry's future revenue will be a function of market conditions, export opportunities, consumption patterns and a host of other factors. Anticipated trends in these factors are outlined.

The Outlook for the domestic market is mixed. IBISWorld forecasts that sales growth will be modest for the industry's traditional food ingredients like flavoring, natural sweeteners, yeast and baking powder. In the future, demand for these food ingredients will be linked to the rate of expansion in the Food Manufacturing Sector. Since food makers face a maturing domestic market, food production in the US will generally be a function of population growth. From its 2006 base of 299.6 million, the US population is expected to increase no faster than around 1% per annum in the coming five years.

There will be other factors influencing future US sales; such as the shifting patterns in dietary habits and consumer tastes. As noted elsewhere, consumers are increasingly seeking to reduce fat and sugar intake. This desire is expected to intensify over the next five years as ongoing public education increases the health awareness of US consumers. Industry products like artificial sweeteners are likely to be the big winners from this shift in consumption. On a similar note, the unprecedented popularity of high protein diets such as the Atkins Diet is likely to produce some short-term gains for manufacturers of semi-processed eggs.

The Perishable Foods segment of the industry is also expected to undergo solid expansion in the next five years. Changes in the structure of American society mean that in an increasing number of families both parents work outside the home. This has significantly reduced the amount of time available for housekeeping activities including food preparation. In 1987, American households spend approximately one hour preparing the evening meal. By 2002, the average meal preparation time had halved to thirty minutes (source: University of Florida Institute of Food And Agriculture Services). As an increasing proportion of mothers return to full-time employment, the demand for prepared meals will increase. This should stimulate production of refrigerated fully prepared entree and dinner products sold in supermarkets.

Future conditions in the domestic market for all product categories in this industry will be influenced the health of the US economy. After stagnant growth in the last few years, US GDP is forecast to average around 2.7% over the Outlook period. This should impact positively on household incomes, leading to higher private consumption on miscellaneous foods. IBISWorld forecasts suggest that real private consumption will rise by around 3.3% per annum between now and the end of the Outlook period. However, one possible threat to this positive economic

outlook is continuing high oil prices that could potentially dampen industrial production over the coming year.

Exporting is likely to provide industry players with more opportunities for growth. IBISWorld expects the export growth witnessed in the last five years to continue as the industry develops new value added products. Rising disposable incomes in regions like Asia, North Africa, and Eastern Europe are likely to create new opportunities for exporters. In the past year or so, exports have been adversely affected by the strong value of the American dollar and stagnant growth in the world economy. However, demand for US miscellaneous food exports is expected to rebound strongly in the next few years as the global economy strengthens. A recent series of devaluations in the past couple of months has also helped boost the price-competitiveness of US exports.

Future trade negotiations may also create new export opportunities for this US industry. The US continues to lobby for the removal of trade barriers, especially in relation to the Economic Union market. In the medium term, this should improve the competitive position of the industry exports abroad. Meanwhile, progress in the development of new free-trade agreements should considerably expand the market for US food products, including those produced by this industry. In the shorter term, the US is likely to benefit from a signed free-trade agreement with Australia which has been operational since January 2005; the agreement reduces bilateral tariffs on a range of goods and services. Closer to home, the US Government has also initiated the Central American Free Trade Agreement (CAFTA). Four countries have signed the agreement with the US: Guatemala, Nicaragua, El Salvador, and Honduras. The industry expects a gradual reduction in quotas and tariffs similar to that experienced under the NAFTA agreement. Ultimately, both new trade agreements should result in new trade opportunities for US manufacturers.

The changing structure of the downstream retail market is another factor likely to impact on industry players. Ongoing consolidation among food retail chains is increasing the buying power of a small number of retailers. This is likely to place pressure on profit margins in food manufacturing as supermarket chains use their clout to secure lower prices. Changes within supermarkets will also be important. The introduction of cost cutting methods, including the disappearance of service counters is likely to increase demand for perishable foods in case-ready packages. This trend has already emerged in other products like meat.

IBISWorld anticipates some industry rationalization in the coming years. This could potentially create new growth opportunities if industry mergers create "super-manufacturers" capable of competing on an international scale. Moreover the emergence of countries like China as a global manufacturing base signals a greater willingness of manufacturers to relocate to developing countries. Potentially, some of the industry's multinational players may pull out of the US as infrastructure improves in lower cost nations.

The commoditization of many basic food ingredients has reduced per unit returns for manufacturers in the last decade. This ongoing trend means that the ability of manufactures to secure cost savings through scale economies is increasingly important. IBISWorld expects firms to respond by concentrating their activities on a smaller number of sites. The pursuit of scale

economies could produce several possible outcomes. Most likely, manufacturers will narrow their product ranges. Fewer products that are applicable to more clients would reduce production costs through longer product runs.

Innovation has always been a cornerstone to building this industry. Historically, the US industry has invested substantial resources into research and development. It is not surprising therefore, that the quality of the industry's research is well regarded internationally. However, intense inter-industry rivalry has traditionally prevented wide dispersion of new intellectual property within the industry. In light of intensifying global competition, IBISWorld believes that a more coordinated approach to support the industry in research and development will be necessary in the future.

Looking ahead, the industry production is likely to become more polarized. Manufacturers are expected to channel more resources into the development of premium products. Consistent with similar trends in other food markets American consumers are devoting more resources toward the purchase of high-quality foods. Increasing demand for `luxury foods' should drive the marketing of premium based perishable food products, with a particular emphasis on gourmet products. Meanwhile, at bottom end of the market, production of generic goods is likely to rise as low-income earners become less brand conscious. Increasingly customers in this segment have shown a willingness to switch from higher margin branded product to generics, especially during periods of economic downturn.

In the marketplace, one of the biggest factors threatening the industry's future growth is the current push by US grocery chains to grow their range of in-house products. Following trends in the UK and other international retailing sectors, supermarket chains like Wal-Mart and Safeway are moving to increase the percentage of home brands on their shelves. The move is likely to see some branded goods displaced in the retail market in the next few years. Large branded food manufacturers like ADM will be hardest hit by the move.

Going forward, 'other food' manufacturers are likely to face greater regulatory restraints over the next five years, especially in relation to product labeling and food safety following increased lobbying from consumer groups. The impact of tighter restrictions on 'other food' manufacturers is likely to vary among different segments. To date, larger establishments have been successful in implementing requirements such as labeling standards and food safety programs. However, anecdotal evidence shows that costs for implementing legislative requirements can disproportionately affect small manufacturers. Looking ahead, any increase in regulatory requirements is likely to increase costs that manufacturers may have difficulty passing onto consumers.

On a final note, one of the key features of the industry going into the future may be a shift from the primary manufacture of raw materials to more technical products. Much of this shift will represent high value adding. Today, industry players themselves are moving into more advanced food manufacturing in response to greater demand for convenience by consumers. So far, this trend has been most evident in the industry's increasing focus on perishable meal solutions. Looking ahead, this trend will persist in the future, especially as improving infrastructure elsewhere in the world encourages greater levels of elementary food manufacturing by

developing and transitional countries. Ultimately, these low cost competitors are likely to capture a large slice of the lower end food markets that was traditionally captured by the US food manufactures operating in this industry.

Excerpts from ***All Other Food Manufacturing in the U.S.***, IBISWORLD Industry Report, October 2007

APPENDIX D

Chester County Businesses by NAICS Super Sector 2004 to 2006

Chester County has seen steady to growing business growth between 2004 and 2006. There has been moderate business growth amongst Manufacturing; Trade, Transportation, and Utilities; Leisure and Hospitality, and Other Services.

NAICS Sector	2004 Businesses	2005 Businesses	2006 Businesses
Natural Resources and Mining	13	12	13
Construction	62	61	71
Manufacturing	45	53	56
Trade, Transportation, and Utilities	152	157	167
Information	7	7	8
Financial Activities	47	47	50
Professional and Business Services	62	64	67
Education and Health Services	50	53	54
Leisure and Hospitality	50	51	55
Other Services	40	43	56
Unclassified	12	11	13

Source: BLS Quarterly Census of Employment and Wages

Chester County Employment by NAICS Super Sector 2004-2006

Between 2004 and 2006, some sectors experienced declining employment growth while other experienced slow to moderate employment growth. Those experiencing declining growth include Manufacturing and Trade, Transportation, and Utilities. Sectors experiencing slow to moderate growth include Construction; Professional and Business Services, Education and Health Services, Leisure and Hospitality, and Other Services.

NAICS Sector	2004 Employees	2005 Employees	2006 Employees
Natural Resources and Mining	67	64	66
Construction	603	687	679
Manufacturing	3,902	4,165	3,892
Trade, Transportation, and Utilities	1,854	1,844	1,776
Information	141	139	148
Financial Activities	240	227	229
Professional and Business Services	341	340	423
Education and Health Services	558	818	790
Leisure and Hospitality	671	672	722
Other Services	143	152	173
Unclassified	41	20	28

Source: BLS Quarterly Census of Employment and Wages

Total Employment – U.S., South Carolina, and Chester County

The majority of Chester County's employment is in the Manufacturing; Trade, Transportation, and Utilities; Education and Health Services; and Leisure and Hospitality Sectors.

Industry	U.S. Total	South Carolina Statewide	Chester County, South Carolina
Base Industry: Total, all industries	112,718,858	1,534,903	8,925
Natural Resources and Mining	1,776,777	14,111	66
Construction	7,602,148	126,275	679
Manufacturing	14,110,663	253,811	3,892
Trade, Transportation, and Utilities	26,006,269	368,720	1,776
Information	3,040,577	27,631	148
Financial Activities	8,162,063	97,552	229
Professional and Business Services	17,469,679	214,788	423
Education and Health Services	16,916,228	170,190	790
Leisure and Hospitality	13,024,615	209,467	722
Other Services	4,364,889	48,908	173
Unclassified	244,951	3,451	28

Note: Data based on 2006 Quarterly Census of Employment and Wages Data (most current available)
Employment numbers represent private employment

Percentage of Employment – U.S., South Carolina, and Chester County

Compared to the U.S. and South Carolina, Chester County has a much higher percentage of Manufacturing employment. It has a much lower percentage of Professional and Business Services, Financial Activities, Education and Health Services, and Leisure and Hospitality employment.

Industry	U.S. TOTAL	South Carolina Statewide	Chester County South Carolina
Base Industry: Total, all industries	100.00%	100.00%	100.00%
Natural Resources and Mining	1.58%	0.92%	0.74%
Construction	6.74%	8.23%	7.61%
Manufacturing	12.52%	16.54%	43.61%
Trade, Transportation, and Utilities	23.07%	24.02%	19.90%
Information	2.70%	1.80%	1.66%
Financial Activities	7.24%	6.36%	2.57%
Professional and Business Services	15.50%	13.99%	4.74%
Education and Health Services	15.01%	11.09%	8.85%
Leisure and Hospitality	11.55%	13.65%	8.09%
Other Services	3.87%	3.19%	1.94%
Unclassified	0.22%	0.22%	0.31%

Note: Data based on 2006 Quarterly Census of Employment and Wages Data
Employment numbers represent private employment

Location Quotient – Comparison of South Carolina and Chester County (U.S. as base)

As compared to the U.S. and South Carolina, Chester County has a much higher share of Manufacturing, Construction and Unclassified employment. By contrast, Chester County has a much lower share of Natural Resources and Mining; Trade, Transportation, and Utilities; Information; Financial Activities; Professional and Business Services; Education and Health Services; Leisure and Hospitality; and Other Services.

Industry	South Carolina Statewide	Chester County South Carolina
Base Industry: Total, all industries	1	1
Natural Resources and Mining	0.58	0.47
Construction	1.22	1.13
Manufacturing	1.32	3.48
Trade, Transportation, and Utilities	1.04	0.86
Information	0.67	0.61
Financial Activities	0.88	0.35
Professional and Business Services	0.9	0.31
Education and Health Services	0.74	0.59
Leisure and Hospitality	1.18	0.70
Other Services	0.82	0.50
Unclassified	1.03	1.44

Note: Data based on 2006 Quarterly Census of Employment and Wages Data/ US as base

Chester County Peer Comparison
Total Employment

In comparison to Chester's peer counties, Chester is probably most similar to Lancaster County, SC. However, Lancaster County has greater employment numbers in Financial Activities; Professional and Business Services; Education and Health Services; and Leisure and Hospitality.

Industry	Chester SC	Aiken County	Charleston County	Lancaster SC	Union NC	York SC
Base Industry: Total, all industries	8,925	47,810	163,973	14,101	45,478	60,132
Natural Resources and Mining	66	390	434	58	808	518
Construction	679	4,694	13,367	938	8,985	3,904
Manufacturing	3,892	7,500	9,824	3,952	11,640	10,313
Trade, Transportation, and Utilities	1,776	8,990	40,889	2,790	9,267	14,704
Information	148	456	3,417	272	312	1,489
Financial Activities	229	2,068	9,992	1,095	1,353	5,026
Professional and Business Services	423	12,879	29,131	1,667	4,524	6,991
Education and Health Services	790	4,699	22,329	1,792	3,205	7,314
Leisure and Hospitality	722	4,814	28,336	1,199	3,819	8,167
Other Services	173	1,285	5,833	308	1,255	1,541
Unclassified	28	34	422	30	310	166

Source: 2006 Quarterly Census of Employment and Wages Data

Chester County Peer Comparison
Percentage of Employment

Compared to the rest of Chester County's peers, Chester County has a much higher percentage of Manufacturing employment than any other County. Chester County has a lower percentage of Trade, Transportation, and Utilities; Financial Activities; Professional and Business Services; and Education and Health Services.

Industry	Chester SC	Aiken, SC	Charleston, SC	Lancaster SC	York, SC	Union, NC
Base Industry: Total, all industries	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Natural Resources and Mining	0.74%	0.82%	0.26%	0.41%	0.86%	1.78%
Construction	7.61%	9.82%	8.15%	6.65%	6.49%	19.76%
Manufacturing	43.61%	15.69%	5.99%	28.03%	17.15%	25.59%
Trade, Transportation, and Utilities	19.90%	18.80%	24.94%	19.79%	24.45%	20.38%
Information	1.66%	0.95%	2.08%	1.93%	2.48%	0.69%
Financial Activities	2.57%	4.33%	6.09%	7.77%	8.36%	2.98%
Professional and Business Services	4.74%	26.94%	17.77%	11.82%	11.63%	9.95%
Education and Health Services	8.85%	9.83%	13.62%	12.71%	12.16%	7.05%
Leisure and Hospitality	8.09%	10.07%	17.28%	8.50%	13.58%	8.40%
Other Services	1.94%	2.69%	3.56%	2.18%	2.56%	2.76%
Unclassified	0.31%	0.07%	0.26%	0.21%	0.28%	0.68%

Source: 2006 Quarterly Census of Employment and Wages Data

Chester County Peer Comparison
Location Quotient

Compared to its peer counties, Chester County has a much higher share of Manufacturing and Unclassified employment. However, many of its peer counties also have a higher share of manufacturing employment as compared to the U.S.

Industry	Chester, SC	Aiken, SC	Charleston, SC	Lancaster SC	York, SC	Union, NC
Base Industry: Total, all industries	1	1	1	1	1	1
Natural Resources and Mining	0.47	0.52	0.17	0.26	0.55	1.13
Construction	1.13	1.46	1.21	0.99	0.96	2.93
Manufacturing	3.48	1.25	0.48	2.24	1.37	2.04
Trade, Transportation, and Utilities	0.86	0.82	1.08	0.86	1.06	0.88
Information	0.61	0.35	0.77	0.72	0.92	0.25
Financial Activities	0.35	0.60	0.84	1.07	1.15	0.41
Professional and Business Services	0.31	1.74	1.15	0.76	0.75	0.64
Education and Health Services	0.59	0.65	0.91	0.85	0.81	0.47
Leisure and Hospitality	0.70	0.87	1.50	0.74	1.18	0.73
Other Services	0.50	0.69	0.92	0.56	0.66	0.71
Unclassified	1.44	0.33	1.18	0.98	1.27	3.14

Source: 2006 Quarterly Census of Employment and Wages Data

THE SOUTH CAROLINA POWER TEAM

The South Carolina Power Team includes the state's electric cooperatives such as Fairfield Electric Cooperative and Santee Cooper, the state-owned electric & water utility. The Power Team is the only statewide electric utility and the largest electric power system in the state. Its low electric rates play an important role in the state's economy. Also a member of the South Carolina Power Team, Palmetto Economic Development Corporation promotes the state's advantages for new and expanding companies and provides professional and personalized site location counseling - confidentially and cost-free.

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