City of Newark, Delaware

ECONOMIC DEVELOPMENT STRATEGY AND ACTION PLAN

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INTRODUCTION

This Economic Development Master Plan Analysis is the product of a contract between The Wadley-Donovan Group (through its economic-development unit Wadley-Donovan GrowthTech [WDGT]) and the City of Newark, Delaware. Two other deliverables are being submitted in conjunction with this report: An Economic Development Opportunities Analysis and a Strengths, Weaknesses, Opportunities, and Threats (SWOT) assessment of the City.

WDGT partnered with Garnet Consulting Services, Inc. to complete this Master Plan. Garnet conducted the utility, transportation, and real estate analysis, participated in other portions of the SWOT assessment, and participated in the other project reports.

This Plan is founded on the information obtained through interviews with employers and key-influencers in Newark and New Castle County, and with State government, in addition to and a review of key statistical and other secondary-source information. An employer survey was also conducted among a select group of area employers. The employer survey gathered information on the availability, quality, cost, demand, and trainability of labor; the quality and use of educational institutions and training resources; the quality and cost of utilities and other infrastructure-related items, taxes, incentives, and the overall operating environment.

The results of this research provided critical information leading to an understanding of:

- Marketable strengths that can be capitalized upon
- Product deficiencies that can be corrected cost-effectively
- Development opportunities
- Issues having an impact on the community's or region's economic development future
- Obstacles to development

Research for Newark's Economic Development Master Plan included:

- Initial Project Alignment, Organizational and Background Research (Task 1)
- An Economic Base Analysis including a detailed statistical profile (part of Task 2)
- A detailed Community Business Climate Analysis (Task 3)

In addition, an Economic Development Opportunities Analysis (frequently called a Target Industry Analysis) was prepared as Task 4 of this project.

The research conducted in Tasks 1-3 provided the consultant team with a strong background understanding of Newark as an "economic development product" and of the related strengths and opportunities, deficiencies and obstacles, and issues that will shape the City's economic development future.

Following this research, and using its results, the consultant team created an Economic Development Strategy, presented as Part I of this Master Plan. The Strategy contains 11 initiatives to be pursued by the City. These initiatives will provide Newark with the greatest impact and return on its investment. The initiatives are not presented in any order of priority, which should be determined by the City and its advisors.

The 11 initiatives build on some important items on which the City or other agencies are already working, such as:

- Continuing efforts to improve Downtown Newark, including real estate development, merchant recruitment, niche retail development, promotions and marketing, and parking
- Development of the University of Delaware's Science & Technology Campus
- Improvements to train service into Newark and the train station area
- Transportation improvements through an updated Transportation Plan
- Streamlined code enforcement

Part II of this Master Plan contains a Vision Statement and Goals developed by the consulting team using input received from stakeholders and employers during the research conducted for Tasks 1-3. This vision and the goals serve as a guiding foundation for the City's economic development program over the next 10 years.

Also in Part II is an Implementation or Action Plan. This Action Plan pinpoints specific steps for the City and its partners and stakeholders to take to implement each of the 11 initiatives of the Economic Development Strategy. The Action Plan also includes, for each initiative, a schedule for implementation, identified agencies or individuals to be responsible for implementation, the resources needed, and performance measures to gauge the City's success in meeting the Plan's goals. Exhibit 2 contains a summary of the schedule for each of the major action steps in the Action Plan and recognizes that because of the existing work responsibilities of the City's staff and economic development allies, some flexibility is necessary in working new projects into the schedule.

PART I: THE ECONOMIC DEVELOPMENT STRATEGY

Economic Strategy Initiatives		
#	**Short Name**	**Brief Description**
1.	Greater Newark Development Corporation	Establish a Greater Newark Development Corporation (GNDC) or similar structure, in the form of a public/private partnership with broad representation from all institutions that have an impact on the City's economic development opportunities including but not limited to the City, the University of Delaware, the Chamber of Commerce, New Castle County, the Delaware Biotechnology Institute, the Delaware BioScience Association, the Delaware Technology Park, the Christina School District, and all other agencies or organizations active in economic development. This agency would serve as the keystone to the Greater Newark Economic Development program. Efforts of this team should focus on: ■ Business Retention and Expansion that includes all-size companies ■ Product development, such as seeing that adequate real estate inventory in Newark and nearby areas of New Castle County exists and business sites are "shovel-ready" and competitively priced; promotional literature is developed; supporting databases are complete and up-to-date on sites, labor force, incentives, taxation, employer lists, and on utility availability, quality, and cost ■ Marketing and pro-active business attraction including maintenance of an effective greater Newark website with links to the websites of the City, university and other area agencies in the GNDC ■ Directing economic-development services in the Greater Newark Region in cooperation with the University, DEDO, and other economic development agencies and area stakeholders ■ Improved tourism marketing ■ Other topics to be identified
2.	Economic Development Website	Create and maintain a webpage specific to the City's economic development programs and services. Recommendations from an expert on economic development website content and function are necessary.
3.	Available Real Estate Inventory	Create and maintain an Available Real Estate Inventory specific to properties within the city limits, with a dedicated section for Downtown. Aspects of this initiative include: ■ Creation of a standardized format for all listed properties ■ Improvement of communications channels with brokers and property owners to maximize available information ■ Inclusion of this inventory on the City's economic development website (see Initiative #2) ■ Sharing of information with DEDO, New Castle County and other allies

Economic Strategy Initiatives		
#	**Short Name**	**Brief Description**
4.	Department of Planning and Development Repositioning	Reposition the City's Department of Planning and Development to emphasize its economic development mission with expanded use of the Newark Network and leadership in the Greater Newark Development Corporation (see Initiative #3). Elements of this Initiative include: ■ Continuation of a focus on Downtown development and promotion ■ More systematic, City-wide business retention and expansion efforts, including small employers and employers outside of the downtown ■ Maintenance of a steady communication stream with all employers in the City on trends, events, and updates ■ A visitation and relationship-building program to City employers ■ Development, through the private sector, of a business park on newly annexed land (see Initiative #9) ■ Investigation, over the long-term, into development of business parks in the county in which the City has an equity partnership. Alternatively, the partnership could be with other members of the area's economic development community, such as the University. ■ Working with owners of vacant buildings to prepare their buildings and sites for market needs ■ Developing new marketing material and redeveloping the City's website for economic-development uses (see Initiative #2) ■ Renaming the Department to the *Department of Development and Planning* to emphasize the importance of development ■ Conducting an economic-development educational program for City staff and Board & Commission members ■ Revising the City map to show all business parks ■ Developing a scripted prospect tour ■ Expand the existing "Buy Local" program to encourage local residents to buy from local merchants (for more information, see the"Additional Information" section of Initiative #4). ■ Increasing the focus on tourism
5.	Create a Newark Brand	Brand Newark as a regional technology and innovation hub and create and fund a related marketing program.

Economic Strategy Initiatives		
#	**Short Name**	**Brief Description**
6.	Christina School District Improvements	Conduct efforts to improve the Christina School District including a focus on Science, Technology, Engineering, and Mathematics. This effort is necessary to implement the brand suggested in Initiative #5, and must include improvement in basic skills testing, graduation rate and similar measures. Encourage area companies within the District to have a variety of partnership programs with the School District.
7.	Cost-of-Doing Business Analysis	Prepare an analysis of the cost-of-doing-business in Newark versus other competing locations including an electric-cost comparison model of Newark, DP&L, and other DEMEC communities. Components should include: ▪ Labor costs ▪ Real estate costs ▪ Construction costs ▪ Utility costs ▪ Taxes ▪ Incentives to reduce costs ▪ Other relevant factors
8.	Permit and Approval Review and Improvement	Continue the process of improving the City's business climate and/or the perception of the City's business-friendliness by taking actions necessary to identify and correct problems in the City's regulations and procedures, and to communicate improvements effectively.
9.	Economic Diversification Land	Identify land in the City with development or redevelopment potential for industrial, office and R&D operations, especially those within the Task 4 Target Industries, and take appropriate actions with the owners to make those sites shovel-ready as demonstrated by: ▪ Availability of the land on the market at a reasonable price ▪ Appropriate zoning ▪ Phase 1 environmental assessment ▪ Wetlands delineations ▪ Land characteristics that facilitate development ▪ Full utilities and telecommunications services ▪ Road access suitable for business use
10.	Target Industry Recruitment	Develop, fund and implement aggressive and effective business attraction, retention/expansion, and startup programs for targeted industries identified in Task 4 of this project to diversify and strengthen the City's economic base. This would include investigation into the feasibility of a general business incubator.
11.	Prospect Tour	Create a strategy for hosting business prospects visiting the City. consisting of three elements: ▪ An overall plan that covers all aspects of prospect servicing

Economic Strategy Initiatives		
#	**Short Name**	**Brief Description**
		■ Identification and training of the most effective prospect servicing team for the City ■ Creation and rehearsal of a scripted prospect tour to be used when hosting business prospects

PART II: THE ECONOMIC DEVELOPMENT VISION STATEMENT, GOALS AND ACTION PLAN

Vision Statement and Goals

Economic Development Vision Statement

In 2020, Newark, Delaware will be internationally recognized as a regional hub of science, technology, and higher education. Its research, science, and technology sector will be the core of a diversified economy providing well-paying jobs for workers from a multi-state area. Downtown Newark and its shopping and entertainment opportunities will be a destination for both regional residents and global visitors, as well as a sought-after business location. Newark's economic sector will be a key component of its highly desirable quality of life.

Economic Development Goals

The unifying theme of the City's economic development program, as reflected in the Economic Development Master Plan, is to create and sustain a multi-faceted economic base that includes research and development, technology-oriented and other manufacturing, office operations, retail and services, and other types of uses that may find Newark an attractive location. This will be accomplished through a combination of:

- Diversified business attraction
- Existing business outreach and assistance for retention and expansion
- Entrepreneurship and small business development
- Sustainable downtown physical and economic vitality
- Community development and redevelopment

Economic Development Action Plan

Initiative #1: Greater Newark Development Corporation

Related Goals

- Diversified Business Attraction
- Existing Business Outreach and Assistance for Retention and Expansion
- Entrepreneurship and Small Business Development
- Sustainable Downtown Physical and economic Vitality
- Community Development and Redevelopment

Background Information

Newark is blessed with many outstanding organizations whose activities include the promotion of economic development in the City or a broader area that includes the City. Many areas with similar multi-agency programs are focusing on improving their productivity and cost-effectiveness by establishing more formalized structures to coordinate efforts. In some areas, these are economic development corporations, while in others they are partnerships, alliances, or similar structures. The structure that will work best for Newark must be developed by the participants.

The City of Newark should coordinate an effort to establish a Greater Newark Development Corporation (GNDC) or similar structure, in the form of a public/private partnership with broad representation from all institutions that have an impact on the City's economic development opportunities, including but not limited to the City, the University of Delaware, the Chamber of Commerce, New Castle County, the Delaware Biotechnology Institute, the Delaware BioScience Association, the Delaware Technology Park, the Christina School District, and all other agencies or organizations active in economic development in and near Newark. The exact structure would have to conform to the needs and desires of the member organizations. Efforts of this team should focus on:

- Establishing a clearly defined mission and service-delivery structure that assures that all functions of a full-service economic development program are adequately met most efficiently and cost-effectively.
- Business Retention and Expansion that includes all sizes and types of companies
- Product development, such as seeing that adequate real estate inventory in Newark and nearby areas of New Castle County exists and business sites are "shovel-ready" and competitively priced; promotional literature is developed; supporting databases are complete and up-to-date on sites, labor force, incentives, taxation, employer lists, and on utility availability, quality, and cost
- Marketing and pro-active business attraction including maintenance of an effective greater Newark website with links to the websites of the City, university, and other area agencies in the GNDC, and marketing themes to be used by some or all members of the GNDC.
- Directing economic-development services in the Greater Newark Region in cooperation with the University, DEDO, and other economic development agencies and area stakeholders
- Improved tourism marketing
- Other topics to be identified

Major Action Steps and Schedule

Action Steps	Schedule
1. City Manager and Director of Planning and Development, with counsel from Newark Network and other stakeholders, identify all agencies that should be part of this Initiative.	2nd-3rd Qtrs 2011
2. Prepare a detailed Purpose Statement that explains the need for this new structure and primary benefits that will accrue to participants.	2nd-3rd Qtrs 2011
3. Host an organizational meeting to discuss the creation of such an entity and explore options, impediments, concerns, and other important issues.	3rd-4th Qtrs 2011

Action Steps, *continued*	Schedule
4. Prepare a detailed analysis of what services are currently being provided by area organizations to identify areas of gaps and duplications, related issues, and desired service improvements.	3rd-4th Qtrs 2011
5. Undertake research to identify other places that have undertaken a similar initiative, obtain information on possible organizational forms and "lessons learned" from these efforts.	3rd-4th Qtrs 2011
6. Conduct a planning retreat that explores alternative organizational structures, identifies the type of structure that will work best for Newark and the Greater Newark area, and related legal, staffing, and funding issues.	1st-2ndQtrs 2012
7. Come to agreement on the type of organization or relationship that will best meet the needs of Newark and its allies.	2nd-3rd Qtrs 2012
8. Take actions necessary to implement that agreement (may include such items as articles of incorporation, bylaws, etc.).	3rd-4th Qtrs 2012
9. Conduct a detailed performance evaluation of the new entity and make adjustments as necessary	1st 2nd Qtr 2014 and annually

Responsibility

Primary:	Support:
Initiation ■ City Manager ■ Director of Planning & Development **Implementation** ■ City Manager ■ Director of Planning & Development ■ University of Delaware ■ New Castle County ■ Newark and New Castle County Chambers of Commerce ■ Christina School District	■ Delaware Biotechnology Institute ■ Delaware BioScience Association ■ Delaware Technology Park ■ Newark Network ■ All other agencies or organizations active in economic development in and near Newark

Resources Needed

	Item	Amount	Possible Sources
Funding:	■ Funding to operate the new organization	Unknown at this time	City Budget, UD Contributions from organizational participants
Other:	■ Significant staff time to manage the effort, with volunteer assistance ■ Participation of all allies		

Performance Measures

- Purpose Statement written 1st Qtr 2011
- Organizational meeting held to discuss the need for this initiative and related issues 2nd Qtr 2011
- Research on possible structures completed 3rd Qtr 2011
- Planning retreat conducted 4th Qtr 2011
- Greater Newark Development Corporation or similar entity established 3rd Qtr 2012
- First Annual Performance Review completed 4th Qtr 2013

Timeframe

This Initiative is:

☑ Short-term (1-2 years) To create the new entity	☑ Intermediate-term (3-5 years) Initial performance review	☐ Long-term (5+ years)	☑ Continuing Operations of the new entity

Initiative #2: Economic Development Website

Related Goals

- Diversified Business Attraction
- Existing Business Outreach and Assistance for Retention and Expansion
- Community Development and Redevelopment

Background Information

The creation, maintenance, and use of an excellent quality website are critical to operating a successful economic development program. Site-selection consultants consistently report that they conduct 65%-70% of their initial research on communities via the Internet. Companies in a search mode not using the assistance of site-selection consultants are equally dependent on websites, or more so.

The portions of Newark's website devoted to economic development are inadequate, incomplete, and difficult to navigate in terms of finding desired information quickly and easily. A three-step approach should be taken:

1. Review of the current website by a firm such as ED Solutions that specializes in economic development website evaluation for the purposes of obtaining an objective, outside review of the current website and recommendations for improvements.
2. Development of a single economic development tab on the current website or linkage to a separate website that conveniently provides all necessary economic development information on the City.
3. Packaging of necessary statistical information in conformance with the International Economic Development Council's (IEDC) Site Selection Standards database guidelines, and an integrated GIS-enhanced building-site and community-information-delivery platform, such as is provided by LocationOne Information System (LOIS). LOIS provides the IEDC-conforming database as part of its product system.

Major Action Steps and Schedule

Action Steps	Schedule
1. Appoint staff person responsible for website improvement.	2nd-3rd Qtrs 20111st Qtr 2011
2. Write and issue Request for Qualifications for website review and improvement recommendations.	2nd-3rd Qtrs 2011
3. Download IEDC Site Selection Standards database guidelines from IEDC website (much of this data has been provided to the City in the SWOT report in Appendix B: Statistical Data; Benchmark Comparisons.	2nd-3rd Qtrs 2011
4. Establish Data Committee and begin process of populating IEDC Site Selection Standards database.	2nd-3rd Qtrs 2011
5. Select economic development website specialist to review the economic development portions of the City's website and prepare a detailed list of necessary improvements.	3rd-4th Qtrs 2011
6. Write and issue Request for Proposals for website improvements or establishment of new economic development website.	3rd-4th Qtrs 2011
7. Select economic development website designer.	4th Qtr 2011-1st Qtr 2012
8. Develop new economic development website including essential data outlined in the IEDC Site Selection Standards database guidelines (transferred from the SWOT Excel file and completed using own efforts or with consultant assistance) and City Real Estate Inventory (see Initiatives #3 and #5).	4th Qtr 2011-1st Qtr 2012
9. Promote availability of new economic development website.	4th Qtr 2011-1st Qtr 2012
10. Maintain website to assure most complete, accurate, and current information.	Ongoing

Responsibility

Primary:	Support:
■ City Manager ■ Director of Planning & Development ■ Person appointed to oversee website improvements	■ Data Committee

Resources Needed

	Item	Amount	Possible Sources
Funding:	■ Website review and evaluation ■ Website improvements	■ $2,800 ■ To be determined, but budget $18,000	City Budget City Budget
Other:	■ Staff time devoted to this initiative		

Performance Measures

- Review of current website competed 2nd Qtr 2011
- Data standards templates populated 3rd Qtr 2011
- New website available 3rd Qtr 2011
- First prospect obtained from new website 4th Qtr 2011
- Monitor number and characteristics of website "hits" monthly.

Timeframe

This Initiative is:

☑ Short-term (1-2 years) Initial Improvements	☐ Intermediate-term (3-5 years)	☐ Long-term (5+ years)	☑ Continuing Website Maintenance

Additional Information

For contact and capabilities information on ED Solutions, see: http://www.solutionsed.com

For IEDC's Site Selection Standard templates, see: http://www.iedconline.org/?p=Data_Standards

For contact and capabilities information on LocationOne Information System, see: http://www.locationone.com

For the award winning websites form the 2010 IEDC Excellence in Economic Development Awards, see:
City of Hutto, TX www.hutto.com
Grand Junction (CO) Economic Partnership http://www.gjep.org/
City of Cincinnati, OH Economic Development Division http://www.cincinnati-oh.gov/cmgr/pages/-9152-/
Spoon River (IL) Partnership for Economic Development
http://www.cantonillinois.org/index.asp?Type=B_BASIC&SEC={4DB55F42-AD18-4C18-A7DA-A48BA378B7C3}

For a presentation by Atlas Advertising on "Building a Best-in-Class Economic Development Website, see: http://www.slideshare.net/wright0405/building-a-bestinclass-economic-development-website

Initiative #3: Available Real Estate Inventory

Related Goals

- Diversified Business Attraction
- Existing Business Outreach and Assistance for Retention and Expansion
- Entrepreneurship and Small Business Development
- Sustainable Downtown Physical and Economic Vitality
- Community Development and Redevelopment

Background Information

Available real estate is usually the second most important factor (after availability of needed labor skills) for locating a business. Currently there is no centralized real estate inventory on available land and buildings in Newark for business locations. The City is currently dependent on property owners or brokers remembering and/or being willing to provide listing information as properties become available, and notifying the City when property is taken off the market. This pertains both to downtown Newark, where the list of available properties is fairly accurate but missing many key details, and for the remainder of the City where the CoStar information used by DEDO segments properties by Zip Code, resulting in many properties not in the city limits showing as being in Newark because the Zip Code districts include areas both in and out of the City.

Newark should create and maintain an Available Real Estate Inventory specific to properties within the city limits, with a dedicated section for Downtown. Aspects of this initiative include:

- Creation of a standardized format for all listed properties
- Improvement of communications channels with brokers and property owners to maximize available information
- Inclusion of this inventory on the City's economic development website, using a GIS database delivery system supplemented by a community database conforming to IEDC data guidelines, such as is provided by LocationOne.
- Sharing of information with DEDO, New Castle County, and other allies

Major Action Steps and Schedule

Action Steps	Schedule
1. Assign a person to be in charge of this Initiative.	2nd-3rd Qtrs 2011
2. Develop a contact list of commercial and industrial real estate brokers and property owners from whom information on available properties is desired.	2nd-3rd Qtrs 2011
3. Develop a contact list of organizations and individuals (e.g., New Castle County, DEDO, Chamber of Commerce) with whom the real estate inventory will be shared.	2nd-3rd Qtrs 2011
4. Develop a draft real estate inventory template form showing all information to be collected and included in the inventory.	2nd-3rd Qtrs 2011
5. Consult with a firm such as LocationOne (http://:www.locationone.com) for insights into a GIS-enhanced system and site set-up assistance (see Initiative 1).	2nd-3rd Qtrs 2011
6. Host a meeting of real estate brokers and owners and distribute the draft real estate inventory template form for feedback on information requested in the template. For brokers/owners unable to attend this meeting, provide the draft template electronically and ask for feedback. Ask all participating brokers/owners for recommendations on others from whom information should be sought or with whom it should be shared.	2nd-3rd Qtrs 2011
7. Make any necessary revisions to the template.	3rd-4th Qtrs 2011
8. Distribute the revised template to the list of brokers and owners and obtain information on available sites and buildings.	3rd-4th Qtrs 2011

Action Steps, *continued*	Schedule
9. Assure that all available properties are included on the City's economic development website.	3rd-4th Qtrs 2011
10. Distribute a monthly checklist of available properties to brokers and owners to solicit updates for the list (both properties to be added and those to be removed).	Monthly
11. Maintain the inventory in an accurate fashion on the website and share it with all allies.	Ongoing

Responsibility

Primary:	Support:
■ Director of Planning & Development ■ Person appointed to oversee this initiative	■ Real estate brokers and owners ■ Economic development allies

Resources Needed

	Item	Amount	Possible Sources
Funding:	■ Integrated GIS-enhanced building site and community information delivery platform, with database conforming to IEDC standards	■ $8,000 annually (it would be free if the state contracted for a statewide system for $23,000 per year, as Newark would be part of the State system)	■ City Budget
Other:	■ Staff time to establish and maintain the inventory		

Performance Measures

- Draft real estate data collection template developed 1st Qtr 2011
- 75% of invited brokers and owners attend meeting held by city to explain this Initiative and how it can be of use to the brokers/owners.
- Final real estate data collection template distributed to brokers and owners 2nd Qtr 2011
- Inventory updated monthly
- First prospect location attributable to this inventory occurs 4th Qtr 2011

Timeframe

This Initiative is:

☑ Short-term (1-2 years) Initial inventory development	☐ Intermediate-term (3-5 years)	☐ Long-term (5+ years)	☑ Continuing Inventory maintenance

Additional Information

For information on the award winning (2010 IEDC Excellence in Economic Development Awards Special Purpose Website) Connecticut Economic Resource Center (CERC) SiteFinder Website, see:
http://www.ctsitefinder.com/

For examples of City economic development real estate inventories see:
http://www.saintjoseph.com/econdev/properties.asp (click on "see available buildings and available sites")
http://www.visaliaedc.com/real-estate.asp?catID=3
http://www.worthington.org/busdev/real_estate_inventory.cfm
http://www.huntsvillealabamausa.com/new_exp/ed_assistance/ind_parks/parks.html

Additional Information

For examples of multi-organizational economic development organizational structures see:
Colorado Springs Regional Economic Development Corporation http://www.coloradosprings.org/
Danville-Boyle County KY Economic Development Partnership http://betterindanville.com/About-Us.aspx
Charleston(WV) Area Alliance http://www.charlestonareaalliance.org/
Economic Development Corporation Serving Fresno County http://www.fresnoedc.com/

For an article on "Developing and Nurturing Multi-Organizational Networks" see:
http://www.working-life.biz/DevelopingMultiorganizationalNetworks.pdf

For a description on the functions of a full service economic development program, see Exhibit 1.

Initiative #4: Department of Planning and Development Repositioning

Related Goals

- Diversified Business Attraction
- Existing Business Outreach and Assistance for Retention and Expansion
- Entrepreneurship and Small Business Development
- Sustainable Downtown Physical and Economic Vitality
- Community Development and Redevelopment

Background Information

This Initiative is a companion to Initiative #3, but differs in that this Initiative focuses internally on things the City should be doing, while Initiative #3 focuses on a multi-organizational partnership. If Initiative #3 does not occur, all the elements listed below become the responsibility of the City.

Over the past several years, the City has been engaged in restructuring its planning and development efforts to operate more effectively and efficiently. This process should continue with the intent of repositioning the City's Department of Planning and Development to emphasize its economic development mission, and with expanded use of the Newark Network and leadership in the Greater Newark Development Corporation (see Initiative #3). Elements of this Initiative include and must be coordinated with Initiative #3 to assure the most cost-effective and efficient accomplishment of:

- Continuation of the City's focus on Downtown development and promotion
- More systematic, City-wide business retention and expansion efforts, including small employers and employers outside of the downtown, especially those within the targeted industry sectors
- Maintenance of a steady communication stream with all employers in the City on trends, events, and updates on City policies that affect them
- A visitation and relationship-building program to City employers using Synchronist or Executive Pulse software for record keeping and analysis
- Preserving sites zoned for industrial, R&D, or office use for those purposes
- Development, through the private sector, of a business park within the City or on newly annexed land (see Initiative #9)
- Investigation, over the long term, into development of business parks in the county (or elsewhere as appropriate) in which the City has an equity partnership. Alternatively, the partnership could be with other members of the area's economic development community, such as the University. State legislative approval probably would be needed to realize this goal. These parks would not necessarily be adjacent to the City. A full ROI analysis would have to be done to justify the investment. City investment could be direct, through infrastructure extension and water and sewer service, or other participatory activities.
- Working with owners of vacant properties to prepare their buildings and sites to meet market needs, including redeveloping or converting properties to other uses.
- Developing new marketing material and redeveloping the City's website for economic-development uses (see Initiatives #2; and initiatives #10 and #11, with which it should be done concurrently)
- Renaming the Department to the *Department of Development and Planning* or *Department of Development Services* to emphasize the importance of development
- Continuation of efforts to improve the City's business climate (see Initiative #8)
- Conducting an economic-development educational program for City staff and Board & Commission members (Should be conducted concurrently with Initiatives #2, #5, #10, and #11)
- Revising the City map to show all business parks
- Developing a scripted prospect tour (see Initiative # 10 and #11)
- Creating a "Buy Local" program to support merchants
- Increasing the focus on tourism

- Other topics as appropriate

Major Action Steps and Schedule

Action Steps	Schedule
1. Establish City working team to oversee this effort.	3rd-4th Qtrs 2011
2. Prioritize the potential elements listed above and select those to be addressed immediately.	3rd-4th Qtrs 2011
3. Take actions necessary to implement highest priority items.	4th Qtr 2011-1st Qtr 2012
4. As a new Greater Newark effort is created, segment work areas into those that make most sense for the City to do and those that should be undertaken by the broader effort.	2nd-4th Qtrs 2012
5. Undertake improvement efforts as necessary	Ongoing as needed

Responsibility

Primary:	Support:
■ City Manager ■ Director of Planning & Development	■ Other City staff, board and commission members ■ Greater Newark Development Corporation ■ Economic development allies

Resources Needed

	Item	Amount	Possible Sources
Funding:	■ To implement improvements to be identified in the future ■ Purchase of Synchronist or Executive Pulse Software	■ Unknown at this time ■ Pricing information not available from websites	City Budget
Other:	■ Significant City staff time ■ Participation of Council and any appropriate commission or board members (e.g. planning) as needed		

Performance Measures

- Initial work program created 2nd Qtr 2011reflecting approved budget for FY 11-12
- Department renamed 3rd Qtr 2011
- A communication program with city employers is in place by the second quarter of 2011
- An employer visitation program is in place by the 4th quarter of 2011.
- A new business park is in the planning process by the 2nd quarter 2012

Timeframe

This Initiative is:

☑ Short-term (1-2 years) Initial improvements	☐ Intermediate-term (3-5 years)	☐ Long-term (5+ years)	☑ Continuing improvements

Additional Information

For information on the Synchronist Business Information System see:
http://www.blanecanada.com/product_synchronist.html

For information on the Executive Pulse Business Retention and Expansion Software see:
http://www.executivepulse.com/

For information on governmental joint venture business parks, see:
http://www.firstpark.com/
http://www.sumteredge.com/index.php/multicounty_industrial
http://www.andersoncoky.com/pdf/MOA%20Joint%20Industrial%20Park%20Mercer%20Anderson.pdf
http://www.centralsc.org/properties/?nid=248&cid=1211
http://www.bigsandy.org/Community_Economic_Development/Economic_Development/Industrial_Parks_Authorities.asp
https://www.plateaupark.org

For information on Buy Local programs, see:
http://www.portlandbuylocal.org/
http://www.buylocal.net/

Initiative #5: Create a Newark Brand

Related Goals

- Diversified Business Attraction
- Existing Business Outreach and Assistance for Retention and Expansion
- Entrepreneurship and Small Business Development
- Community Development and Redevelopment

Background Information

The City of Newark lacks a general economic development "brand", although it has recently developed a new brand for the downtown. Although recognized by many as the home of the University of Delaware, this or other noteworthy factors about Newark have not translated into a recognizable and widely appreciated brand image. As captured in the title of Karen Post's 2004 book *Brain Tattoos*, a brand is an easily comprehended positioning statement that captures the essence of a product or place in a way that sticks in potential customers' minds.

Newark has the opportunity to brand itself as a regional technology and innovation hub and create and fund a related marketing program to attract more technology-driven and innovative companies to the City. This would build upon the presence or proximity of the Delaware Technology Park, the University of Delaware, the University's future Science and Technology Campus, the Delaware Biotechnology Institute, the Delaware BioScience Association, and many technology-oriented businesses.

Major Action Steps and Schedule

Action Steps	Schedule
1. City Manager and Director of Planning and Development, with counsel from the University of Delaware, the Delaware Technology Park Director, and other stakeholders meet to craft a draft brand for the City that identifies it as a regional technology hub, including a tag line or positioning statement that corresponds to the image, such as "The Mid-Atlantic's Technical Crossroad." The tag line should be unique, convey the desired image of greater Newark as a technology center, and be geo-specific or have a geographic reference. Avoid over-used or trite tag lines. Consider hiring a firm that specializes in branding and image development, and development of marketing campaigns, such as The Pont Group (www.thepontgroup.com) or Development Counsellors International (www.aboutDCI.com).	3rd-4th Qtrs 2011
2. Assure that the City has the substance to support its image, including website, promotional materials, available sites and buildings, and public school system characteristics (should be conducted concurrently with initiatives # 2, #3, #4, #6, #9, and #10).	On-going
3. Develop a marketing program that contains the brand image, including hard-copy promotional material and website content. Conform to DEDO strategy as much as possible.	1st-3rd Qtrs 2012 and on-going
4. Have the data needed to support the brand image, including data on research conducted in the city and area by the university, private sector and government; employer lists, available sites and buildings for technical operations, company profiles, statistical indicators.	3rd-4th Qtrs 2011
5. Get the Christina School District to understand its critical role in supporting the City's tech center image and brand.	1st-2ndQtrs 2012 and on-going
6. Conduct an awareness campaign within the City about Newark's role as a technology hub.	2nd-3rd Qtrs 2012

Action Steps, *continued*	Schedule
7. Send email to site consultants announcing new brand and background on Newark's technical advantages, kickoff promotional campaign; possibly including a public relations effort; send press release to economic development publications	2nd-3rd Qtrs 2012
8. Send out periodic email notices to site selectors updating them on development in greater Newark.	On-going

Responsibility

Primary:	Support:
Initiation ■ City Manager ■ Director of Planning & Development **Implementation** ■ City Manager ■ Director of Planning & Development ■ The University of Delaware ■ Greater Newark Development Corporation ■ Newark and New Castle County Chambers of Commerce ■ New Castle County	■ Newark Network ■ Delaware Biotechnology Institute ■ Delaware BioScience Association ■ Delaware Technology Park ■ DEDO ■ City technology employers

Resources Needed

	Item	Amount	Possible Sources
Funding:	■ Hiring PR or advertizing firm to help with tag line and logo development	■ $18,000	■ City budget
	■ Development of promotional material, branding, email list of site selectors, modest Public Relations effort	■ $60,000	■ City budget
Other:	■ Staff and stakeholder time dedicated to this effort		

Performance Measures

- Tag line and logo completed and approved by stakeholders and City Council by June 2011,
- Marketing strategy developed by July 2011.
- Marketing materials developed by December 2011
- Promotional campaign begins January 2010 with email to site selectors

Timeframe

This Initiative is:

☑Short-term (1-2 years)	☐ Intermediate-term (3-5 years)	☐ Long-term (5+ years)	☑Continuing

Additional Information

For an article "Branding helps cities make their mark" see:
http://americancityandcounty.com/admin/economic_dev/branding_helps_cities_mark/

For an article "Place Branding: New Tools for Economic Development" see:
http://findarticles.com/p/articles/mi_qa4143/is_200704/ai_n19432350/

For information on branding as part of "Marketing the Community for Economic Development", see:
http://www.mrsc.org/subjects/econ/ed-mark.aspx#Branding

Initiative #6: Christina School District Improvements

Related Goals

- Diversified Business Attraction
- Existing Business Outreach and Assistance for Retention and Expansion
- Entrepreneurship and Small Business Development
- Community Development and Redevelopment

Background Information

The City of Newark's image is associated in part with its K-12 educational system, the Christina School District. Test scores, graduation rates, and public perception make this association less than beneficial for Newark's economic development efforts. In particular, the current perception of the school system does not help the branding of Newark as a regional technology and innovation hub (see Initiative #5).

The City, Christina School District, and Delaware Department of Education should collaborate on an effort to improve basic skills testing, graduation rates, and similar measures, with a focus on Science, Technology, Engineering, and Mathematics. Wherever possible, area companies within the district should be encouraged to have a variety of partnership programs with the School District.

Major Action Steps and Schedule

Action Steps	Schedule
1. Initiate discussions with the Christina School District Board and key staff on the City's Economic Development Master Plan and the role of the District in the Plan. Discuss the importance of the District as a key player in the plan's development and the City's future. Lay out a methodology for the ongoing involvement of the District. Should be conducted concurrently with Initiative #3.	2nd-3rd Qtrs 2011
2. Engage the District as a partner in the City's economic development program.	2nd-3rd Qtrs 2011, on-going
3. Create, with the City and stakeholders, a network of support for the District to set goals and realization of those goals, identifying the specific support role to be played by each stakeholder	3rd-4th Qtrs 2011
4. Indentify school districts in other technology centers to use as performance benchmarks and best-case examples.	4th Qtr 2011-1st Qtr 2012
5. Establish specific performance goals to be established by the District over a five-year period.	4th Qtr 2011-1st Qtr 2012

Responsibility

Primary:

Initiation

- City Manager
- Director of Planning & Development

Implementation

- Christina School District
- City Manager
- Director of Planning & Development
- Greater Newark Development Corporation
- The University of Delaware

Support:

- Newark Network
- Newark and New Castle County Chambers of Commerce
- New Castle County
- Delaware Biotechnology Institute
- Delaware BioScience Association
- Delaware Technology Park
- City technology employers

Resources Needed

	Item	Amount	Possible Sources
Funding:	▪ N/A	N/A	N/A
Other:	▪ Significant staff time to manage the effort, with volunteers assistance ▪ Participation of allies and the Christina School District staff		

Performance Measures

- Christina School District Board agrees to work with the City and the GNDC (see initiative #3) in Economic Development 2nd Qtr 2011
- Stakeholders' specific roles in assisting the School District identified (e.g., mentoring programs, shadowing programs) 2nd Qtr 2011
- Specific performance measures established by Stakeholders and agreed to by the School District 3rd Qtr 2011
- Benchmark school districts identified and data collected 3rd Qtr 2011
- School District establishes a STEM program 2nd Qtr 2012
- School District dropout rates and other performance measures begin to show improvement 4th Qtr 2012

Timeframe

This Initiative is:

☑ Short-term (1-2 years)	☐ Intermediate-term (3-5 years)	☐ Long-term (5+ years)	☑ Continuing

Additional Information

For background on science, technology, engineering and mathematics programs, see

1. STEM Education Coalition. The Science, Technology, Engineering, and Mathematics (STEM) Education Coalition works to support STEM programs for teachers and students at the U. S. nstacommunities.org/stemedcoalition]
2. www.setda.org/c/document_library/get_file?folderId=270...
3. STEM. STEM is an educational Website launched to promote science, technology, engineering and math (STEM). www.mn-stem.com/ - Cached - Similar
4. www.nga.org/Files/pdf/0702INNOVATIONStem.pdf -
5. www.marylandpublicschools.org

Initiative #7: Cost-of-Doing Business Analysis

Related Goals

- Diversified Business Attraction
- Existing Business Outreach and Assistance for Retention and Expansion
- Entrepreneurship and Small Business Development
- Community Development and Redevelopment

Background Information

Overall cost of doing business is one of the major evaluation factors companies consider when looking at potential new locations or comparing their current location with alternatives. *Area Development* magazine's "2009 Annual Corporate Survey" listed labor costs, energy costs, corporate tax rate, occupancy or construction costs, and shipping costs within the top 10 factors corporate executives considered Very Important or Important.

A recent business survey by Angelou Economics as part of Delaware's state-level economic development plan showed cost of doing business as the #8 concern of the most significant challenges facing Delaware as it works to improve job and economic growth. Newark's economic development efforts occur within that framework, and are further impacted by a broadly held perception that the City's electric rates are very high.

It is impossible to tell with certainty based solely on anecdotal evidence or limited survey responses how competitive Newark's cost of doing business actually is. Therefore, the City should prepare an analysis of the actual cost of doing business in Newark versus other competing locations, including an electric-cost-comparison model of Newark, DP&L, and other DEMEC communities. Components should include:

▪ Labor costs ▪ Real estate costs ▪ Construction costs ▪ Utility costs	▪ Taxes ▪ Incentives to reduce costs ▪ Other relevant factors

If this study demonstrates that Newark has an advantage in cost of doing business, this can be promoted in the City's marketing program. Where it is found the City may be more costly than competitors, actions can be taken to reduce or offset cost components that create a disadvantage.

Major Action Steps and Schedule

Action Steps	Schedule
1. Appoint an individual or create a workgroup to oversee this analysis.	3rd-4th Qtrs 2011
2. Prepare a list of study factors and relevant measures for each.	3rd-4th Qtrs 2011
3. Create a model project for use in collecting comparison cost information.	3rd-4th Qtrs 2011
4. Identify those areas with which Newark will compare itself.	3rd-4th Qtrs 2011
5. If consultant assistance is to be used in this analysis, prepare and issue a Request for Proposals and select the consultant.	3rd-4th Qtrs 2011
6. Complete the data collection and analysis for the costs of the model project in Newark and the comparison locations.	4th Qtr 2011- 1st Qtr 2012
7. Identify cost advantages of a Newark location that can be marketed and cost disadvantages that should be reduced or offset.	1st-2ndQtrs 2012
8. Take appropriate marketing and/or corrective actions.	2nd-3rd Qtrs 2012

Responsibility

Primary:	Support:
▪ City Manager ▪ Director of Planning & Development	▪ City Finance Director ▪ City Electric Department Director ▪ City Water & Wastewater Director ▪ DEDO

Resources Needed

	Item	Amount	Possible Sources
Funding:	▪ If consultant used	$20,000 budget	City budget
Other:	▪ Staff time		

Performance Measures

- Study completed 4th Qtr 2011
- Cost analysis built into City economic development website and marketing materials 1st Qtr 2012
- Cost of doing business improvements begun 1st Qtr 2012

Timeframe

This Initiative is:

☑ Short-term (1-2 years)	☐ Intermediate-term (3-5 years)	☐ Long-term (5+ years)	☐ Continuing

Additional Information

For information on the *Kosmont-Rose Institute Cost of Doing Business Survey,* see:
http://www.claremontmckenna.edu/rose/kosmont/CODBS.asp

For information on cost of doing business studies prepared by The Boyd Company, Inc., see:
http://www.bizcosts.com/

Initiative #8: Permit and Approval Review

Related Goals

- Diversified Business Attraction
- Existing Business Outreach and Assistance for Retention and Expansion
- Entrepreneurship and Small Business Development
- Sustainable Downtown Physical and Economic Vitality
- Community Development and Redevelopment

Background Information

Increasingly across the country, communities are focusing on streamlining their development permit and approval regulations and expediting their permit and approval process as a business incentive designed to demonstrate a desirable business climate. Two examples:

- Clermont County, Ohio, a suburb of Cincinnati, enacted an ordinance requiring that projects for which a complete and accurate application had been submitted for a use allowed in the zoning district in which the project was approved, be granted all County permits within ten days.
- The City of Phoenix has recently enacted a Self-Certification program that allows development plans for certain types of commercial projects be stamped by Arizona-licensed architects and engineers who have been through a training program run by the City, rather than to wait for review and approval of those plans by the City's engineering staff.

Newark has made strides to streamline the City's permit-and-approval process, including the incorporation of the Code Enforcement and Property Maintenance office within the Planning and Development Department, publication of the City's "Red Tape Tips" booklet, use of a fast-track application-processing model with simultaneous processing (rather than sequential) of a single plan by all applicable City agencies, and current development of a Code Enforcement Procedures Manual. However, not everyone in the development community is aware of these improvements or believes the system is working optimally. Continuation of these efforts, and better public information about them, is necessary.

All City staff and board and commission members who come in contact with the development process must understand that they are part of the City's economic development team and the culture of the City's regulatory bureaucracy must be perceived as being 'results' -oriented rather than 'process' -oriented.

Major Action Steps and Schedule

Action Steps	Schedule
1. Director of Planning and Development and City Manager establish an effective structure and process for continuation of the City's Permit and Approval Process improvement efforts (this may be a continuation of the process already in place) and publicly communicate those efforts.	2nd-3rd Qtrs 2011
2. Research the City of Phoenix, AZ, City of Raleigh, NC and other locations that have made similar efforts to improve and streamline their development permit and approval process and identify approaches that could be replicated by Newark.	2nd-3rd Qtrs 2011
3. Regularly invite input and/or participation by the business community, in particular architects, engineers, developers, commercial real estate brokers and representatives of projects that have recently been through Newark's permit and approval process, to solicit feedback and ideas on how the process is working and how it can be further improved.	Semi-annually
4. Make recommendations for improvements expeditiously, and seek enactment of those improvements by appropriate boards and commissions where appropriate.	As needed

Action Steps	Schedule
5. Communicate changes in regulations and the development process to appropriate agencies and departments, to the City's development community, and to the public.	As needed
6. Prepare a Development Process flowchart for inclusion in the City's new Code Enforcement Procedures Manual and make it available on the City economic development website.	To coincide with development of the Manual
7. Communicate the availability of the Code Enforcement Procedures Manual to the City's development community and general public.	When Manual is available for distribution
8. Continue efforts to improve the City's permit and approval process as necessary.	Ongoing

Responsibility

Primary:	Support:
■ Director of Planning & Development ■ City Manager	■ All relevant City Departments, boards and commissions ■ Invited business community representatives

Resources Needed

	Item	Amount	Possible Sources
Funding:	N/A	N/A	N/A
Other:	■ Staff time to manage and participate in the process ■ Board and commission member time if appropriate ■ Time of invited business community participants when invited		

Performance Measures

- Improvement process efforts 'formalized' and communicated to the public 1st-2nd Qtrs 2011
- Permit and approval process improvements made and widely communicated as they occur

Timeframe

This Initiative is:

☑ Short-term (1-2 years)	☐ Intermediate-term (3-5 years)	☐ Long-term (5+ years)	☑ Continuing

Additional Information

For information on Phoenix's Self-Certification Program, see:
http://phoenix.gov/DEVSERV/scpindex.html

For information on Clermont County, Ohio's Permit Central operations and Single Application Permit Process, see:
http://permit.clermontcountyohio.gov/

For an example of a good website devoted to a permit and approval process, see:
http://www.co.shasta.ca.us/Departments/Resourcemgmt/drm/permit.htm

For an examples of a permit process flowchart, see:
http://www.cityofindustry.org/PDF/Planning_pdfs/permitprocessflowchart.pdf
http://www3.mckinneytexas.org/www/uploadedFiles/Departments/Development_Services/Engineering/CIP_and_Development/Engineering%20Permit%20Process.pdf

For an example of an interactive approval process questionnaire, see:
http://www.meridiancity.org/uploadedFiles/Departments/Building/approval_process_time_Questionnaire_Jul2010.pdf

Initiative #9: Economic Diversification Land

Related Goals

- Diversified Business Attraction
- Existing Business Outreach and Assistance for Retention and Expansion
- Entrepreneurship and Small Business Development
- Community Development and Redevelopment

Background Information

Newark currently has very little land and very few available buildings to support future economic growth and diversification. While the University of Delaware's new Science and Technology Campus will meet the needs of many technology-driven companies, Newark's future development should support a diversified economic base (see the Task 4 Target Industries), as well as meet the needs both of those businesses who prefer to lease space as well as those who prefer to own.

The City should identify land in or adjacent to the City with development or redevelopment potential for industrial, office, and R&D operations, especially those within the Task 4 Target Industries, and take appropriate actions with the owners to make those sites shovel-ready as demonstrated by completing and documenting the following:

- Site control and availability of the land on the market at a reasonable price
- Appropriate zoning
- Phase 1 environmental assessment
- Wetlands delineated
- Archeological assessment
- Endangered species assessment
- All owners identified and agree to sale
- Lease and sale price stated, and guaranteed for at least one year
- Site map
- Topographic map
- Aerial
- Site size
- Easements and rights of way delineated and described
- Land characteristics that facilitate development
- Full utilities and telecommunications services
- Road access suitable for business use
- All utility access delineated and service capacities described; documents guaranteeing that all necessary utility extensions can be made within 180 days
- All required permits obtained, or written documentation that they can be obtained within 180 days
- Photographs of site from different angles
- List of transportation access to road, with details of characteristics, including distance to the nearest Interstate grade highway.
- Current and former uses of the site

Major Action Steps and Schedule

Action Steps	Schedule
1. Prepare a list of items needed for "shovel ready" certification using the Oregon model (available via a link on www.uscertifiedsites.com).	3rd-4th Qtrs 2011
2. Prepare a site assessment form including but not limited to the factors listed above, showing status; have all supporting material available in a three-ring binder for easy access by prospects, and in a backup file.	3rd-4th Qtrs 2011
3. Prepare a master list of properties in Newark suitable for business development or redevelopment.	3rd-4th Qtrs 2011
4. Complete a site-assessment form for each identified property. Identify any site weaknesses that make it less than fully shovel-ready, and a plan and schedule to work with the owner(s) to make the property shovel-ready.	4th-Qtr 2011-1st Qtr 2012
5. If an identified property is not actively on the market, discuss its availability with the property owner.	2nd-3rd Qtr 2012
6. For improvements that should be made by the property owner (e.g., lack of a Phase 1 environmental assessment or wetlands mapping, need for selective demolition), work with the owner to establish and implement a plan for correcting deficiencies.	3rd -4th Qtr 2012
7. For improvements that can and should be made by the City (e.g., necessary zoning change, inadequate road access or utilities), include the cost of such improvements in the City's Capital Improvement Plan and Budget.	3rd -4th Qtr 2012
8. Undertake site and infrastructure improvements as necessary.	As Needed
9. Assure that all shovel-ready sites are included in the City's Available Real Estate Inventory (see Initiative #3), are marketed on the City's economic development website (see Initiative #2), and all allies with property-marketing programs are aware of the properties.	3rd-4th Qtrs 2012 and on-going

Responsibility

Primary:	Support:
■ Director of Planning & Development	■ Property Owners ■ Zoning Commission ■ City Utility and Public Works Departments

Resources Needed

	Item	Amount	Possible Sources
Funding:	■ Property Improvements	Unknown at this time	City Budget Infrastructure grants
Other:	■ Staff time to identify and evaluate sites, plan necessary improvements, negotiate with property owners, market sites		

Performance Measures

- List of potential development sites identified by 3rd Qtr 2011
- Improvements necessary to make sites shovel ready begun 3rd Qtr 2011 (or earlier if possible)
- Marketing of available sites begun 2nd Qtr 2012 and ongoing

Timeframe

This Initiative is:

☑ Short-term (1-2 years)	☐ Intermediate-term (3-5 years)	☐ Long-term (5+ years)	☑ Continuing

Additional Information

For articles related to shovel-ready sites, see:
http://www.bxjonline.com/bxj/article.asp?magarticle_id=1074
http://www.siteselection.com/issues/2008/may/sasShovelReady/
http://www.pittsburghlive.com/x/pittsburghtrib/business/realestate/s_585046.html
http://poststar.com/news/local/article_59a3caba-a28b-11df-b6be-001cc4c03286.html

For examples of places with shovel-ready or certified sites programs, see:
http://www.uscertifiedsites.com
http://www.raleigh-wake.org/page/certified-sites
http://www.locationgeorgia.com/GRAD_Sites.php
http://www.regionalchamber.com/EconomicDevelopment/Available%20Properties/ShovelReadySites.aspx

Initiative #10: Target Industry Recruitment

Related Goals

- Diversified Business Attraction
- Community Development and Redevelopment

Background Information

As with most communities, particularly in the current sluggish economy, Newark's resources for economic development marketing are limited. Many communities have found it effective to focus their marketing efforts toward a limited number of industries, clusters, or operational types that have been identified as those that offer the best economic development opportunities, including tax-revenue enhancement and absorption of existing real estate, based upon their blend of locational assets. Four target industry reports prepared by the WDG consultant team as part of Task 4 of this project identify the target industries recommended for the City.

The City, or a development entity created under Initiative #3, must now develop, fund, and implement aggressive and effective business attraction, retention/expansion, and startup programs for those targeted industries to diversify and strengthen the City's economic base. This would include investigation into the feasibility of a general business incubator to support entrepreneurship in the target industries.

Major Action Steps and Schedule

Action Steps	Schedule
1. Create an advisory council or group for each of the City's four target industries. These groups should consist of City and area employers; university professors and key administrators; representatives of the Delaware Technology Park, and other target-specific experts, such as representatives of the Delaware Biotechnology Institute and the Delaware BioScience Association, DEDO, and employers from the banking and insurance sectors of New Castle County (for the back-office target). Each group should act as a resource to the City to advise on policies and actions for the City to follow and on marketing positions to take; to provide industry contacts for direct mail and other marketing efforts; to attend trade shows with City Staff and to promote the City at these trade shows as a place to locate a facility; and to meet with prospects visiting the City. These groups should also serve as advisors regarding real estate and infrastructure-development needs, development and maintenance of industry-attractive operating environments (and also serve as advisors to the state for development of industry-attractive regulatory environments); development of university and industry relationships, and advisor on industry trends.	4th Qtr 2011- 1st Qtr 2012
2. Using the material provided in the target profiles, advice from the advisory councils and area developers, identify sites in the City best suited to the target industries (coincides with Initiative #3), development of new sites and buildings suited to the target industries (coincides with Initiative #9).	4th Qtr 2011- 1st Qtr 2012
3. Consult with a consulting firm to do a feasibility study for development of a business incubator, such as Innovative Partners (www.innovativepartners.com).	4th Qtr 2011- 1st Qtr 2012
4. Using the information from the target advisory councils, craft target-specific information on the City's website (coincides with Initiative #2), and development of marketing messages and promotion methodologies that would get attention from companies within the target industries.	1st-2nd Qtrs 2012
5. Coordinate marketing efforts with the University of Delaware and DEDO.	On-going

Responsibility

Primary:	Support:
▪ Director of Planning & Development	▪ Newark Network ▪ The University of Delaware ▪ Newark and New Castle County Chambers of Commerce ▪ New Castle County ▪ Delaware Biotechnology Institute ▪ Delaware BioScience Association ▪ Delaware Technology Park ▪ City technology employers

Resources Needed

	Item	Amount	Possible Sources
Funding:	▪ Development of promotional literature ▪ Development of target-specific data and information on the City's website ▪ Ongoing updates of the website ▪ Incubator feasibility assessment	▪ Included in Initiative #5 budget ▪ Budget $60,000	▪ City budget ▪ City budget or participation if full or part by the University and/or the Technology Park
Other:	▪ Time from the City staff, stakeholders and area employers and experts		

Performance Measures

- A target industry employer opens a facility in the City by the 4th Qtr 2011
- Two new facilities within the target industries open in the City by 4th Qtr 2012, or two existing employers with the target industries expand their employment in the City by at least 20%.

Timeframe

This Initiative is:

☑☐ Short-term (1-2 years)	☑ Intermediate-term (3-5 years)	☐ Long-term (5+ years)	☐ Continuing

Additional Information

For examples of target industry recruitment tools, see:
Portland (OR) Development Commission
"Target Industry Development Hi-Tech & Biosciences"
http://poststar.com/news/local/article_59a3caba-a28b-11df-b6be-001cc4c03286.html
"Target Industry Development Design & Creative Services"
http://www.pdc.us/bus_serv/target_industries/creative_services.asp

Economic Development Corporation Sarasota County (FL) "Qualified Target Industry Tax Refund Program"
http://www.edcsarasotacounty.com/subpages/Qualified_Target_Industry_Tax_Refund_Program.asp

When and if the City wants to conduct a program in which it visits companies potentially interested in moving or expanding in Newark, it is suggested that it conduct such a program with DEDO for maximum cost efficiencies. Gruber Phillips International, located in Toms River, NJ (www.gruberphillips.com) is recommended by many EDO's as a firm to use for identifying company prospects scheduling appointments.

Initiative #11: Prospect Servicing Plan

Related Goals

- Diversified Business Attraction
- Community Development and Redevelopment

Background Information

Many communities make the mistake of beginning an aggressive marketing program without spending time planning how prospects will be taken care of when they indicate an interest in the community. This Initiative includes three important elements:

1. The development of an overall plan that covers all aspects of prospect servicing – the identification of all relevant items, who is responsible for them, what resources are needed, and the ability to respond to prospect or site consultant inquires for data within 24 hours of data request.
2. The identification and training of the most effective prospect servicing team, which includes all City staff and board and commission members that may come into contact with a prospect and the related project. For nearly 15 years, the MetroHartford Alliance and its predecessor, the Capital Region Growth Council, has run a very successful program called Economic Development for Public Officials (EDPO). Many other EDOs across the country have sought to emulate this program, the purpose of which is to provide a periodic training and team-building program for community elected and appointed officials, board and commission members, and municipal employees, as well as residents, regarding their roles in economic development.
3. The creation and rehearsal of a scripted prospect tour to be used in hosting business-prospect visits. As marketing efforts generate prospect interest, Newark's economic development team must be prepared to conduct effective community tours that show the prospect what the prospect needs to see in the most time-efficient and memorable manner. Such a tour cannot be planned while sitting in the car with the prospect – it must be choreographed ahead of time. While there are aspects of a community that nearly every prospect wishes to see, often times there are other parts of a community a prospect specifically does or does not want to spend time visiting.

In addition to these three components, it will be important for the City to have solid relationships with employers in the targeted business sectors and with the University and utility suppliers to allow the Department the flexibility to call on these employers to be interviewed by prospect companies.

It will also be useful for the City to receive guidance from DEDO for the Action Steps listed below.

Major Action Steps and Schedule

Action Steps	Schedule
Overall Prospect Servicing Plan	
1. Establish a Prospect Servicing Team.	2nd-3rd Qtrs 2011
2. Create a master list of all topics related to prospect servicing that the City should be prepared to handle; for example:	2nd-3rd Qtrs 2011
a) Who is the point person responsible for responding to initial prospect inquiries? b) How will information on leads be shared with allies? c) What standardized information will be available to provide to prospects? d) How will the City assure that prospects receive the information most valuable to them? e) What criteria will be used to determine if a prospect will be invited to visit? f) If a prospect is invited to visit, what are the policies for handling hotel accommodations and meals? g) How will a customized community tour route be established? h) What are the roles of prospect-servicing-team members in prospect tours? i) What other items are parts of the City's prospect-servicing plan?	

Action Steps, *continued*	Schedule
Overall Prospect Servicing Plan, continued	
3. Capture all topics and City policies in a written prospect-servicing plan.	4th Qtr 2011- 1st Qtr 2012
4. Select a prospect tracking system and metrics to allow periodic evaluation of marketing methods and prospect-servicing efforts.	4th Qtr 2011- 1st Qtr 2012
5. Evaluate prospect-servicing and marketing efforts annually.	Annually
Prospect-Servicing-Team Training	
1. Identify all City staff, board and commission members who are or should be part of the City's economic development team (including but not limited to the Mayor, City Manager, Building Official, Planning & Development Director, Fire Marshal, Electric Department Director, Water & Wastewater Director, Tax Assessor, Planning Commission, Downtown Newark Partnership, Conservation Advisory Commission).	2nd-3rd Qtrs 2011
2. Contact the MetroHartford Alliance to obtain detailed information on their EDPO program.	3rd-4th Qtrs 2011
3. Develop a Newark-specific agenda for an EDPO session in Newark.	3rd-4th Qtrs 2011
4. Schedule a Newark EDPO session, arrange all logistics (speakers, location, AV equipment, handouts, refreshments, etc.), and invite all appropriate City staff and boards and commissions members.	3rd-4th Qtrs 2011
5. Conduct the EDPO session.	4th Qtr 2011- 1st Qtr 2012
6. Schedule additional EDPO sessions as City staff, board, and commission members change.	As needed
Prospect Tour	
1. Designate someone to be the tour leader and others who will be tour participants, either in the vehicle or at specific tour stops.	2nd-3rd Qtrs 2011
2. Prepare a master list of those portions of Newark and the Greater Newark area that should be included in a typical prospect tour, including:	2nd-3rd Qtrs 2011
a) Business parks, major available sites, and key available buildings	
b) Downtown Newark	
c) Access routes to I-95	
d) University of Delaware	
e) Executive housing areas	
f) Major recreational areas	
g) Existing major employers and representative employers within the targeted business sectors/clusters (for private interviews by prospect companies)	
h) Possible places to stop for a meal or restroom break (Be prepared to entertain prospects at an area restaurant, such as top ones in the downtown, in a private room or corner if at all possible; the City would have to pay for the meals and drinks.)	
i) Individuals that could host a reception at their home or business	
j) Have access to an attractive, comfortable, clean van if there are multiple visitors coming to the City in one trip, or a luxury car/SUV if there are only one or two prospects (the car or van must be clean and free of all personal material–including the trunk).	3rd-4th Qtrs 2011
3. Map all tour elements.	3rd-4th Qtrs 2011
4. Select the most efficient routing for the tour.	3rd-4th Qtrs 2011
5. Create a set of talking points for each stop on the tour and for travel time between each stop.	3rd-4th Qtrs 2011
6. Drive the tour, rehearse the presentation, and time the tour.	3rd-4th Qtrs 2011

Action Steps, *continued*	Schedule
Prospect Tour, continued	
7. Make adjustments in the script and/or route to provide the most effective tour.	3rd-4th Qtrs 2011
8. Ascertain from the prospect making the visit what community elements they would like to see (or not see) and make any necessary adjustments in the tour to accommodate the prospect's requirements.	As Needed
9. On the day before any tour, drive the route to observe any conditions (for instance, street construction) that necessitate a modification in the tour route.	As Needed
10. Prepare a map of the tour for the prospect.	As Needed
11. Immediately after each tour, create a set of notes on what worked well and what requires adjustment.	As Needed

Responsibility

Primary:	Support:
■ City Manager ■ Director of Planning & Development ■ Prospect Servicing Team ■ Prospect Tour Leader	■ For EDPO - all relevant City Departments, boards and commissions

Resources Needed

	Item	Amount	Possible Sources
Funding:	■ Cost of EDPO handout materials, refreshments, meals, speakers' fees, van rental ■ Prospect tour support	■ $1,000 per session ■ Budget $3,000 annually	City Budget
Other:	■ Significant staff time to create and manage the Prospect Servicing Plan		

Performance Measures

- Prospect Servicing Team established 1st Qtr 2011
- Written Prospect Servicing Plan produced by 3rd Qtr 2011
- Basic Prospect Tour created 2nd Qtr 2010
- First EDPO session conducted 3rd Qtr 2011
- First Prospect Tour conducted in accordance with the Prospect Servicing Plan and Tour Plan 4th Qtr 2011

Timeframe

This Initiative is:

☑ Short-term (1-2 years)	☐ Intermediate-term (3-5 years)	☐ Long-term (5+ years)	☑ Continuing

Additional Information

For examples of prospect tracking (also known as contact management or customer relationship management) software, see:
http://www.economicdevelopmentcrm.com/contact_management.php
http://www.ibcnetwork.com/economicdev.html
http://www.prospecttracking.com/

For information on the MetroHartford Alliance's "Economic Development for Public Officials" team-building session, see:
http://www.metrohartford.com/economicdevelopment.aspx?id=68&ekmensel=cbda55a2_12_0_68_9

For information on the Community Builders Institute "Economic Development Crash Course", see:
http://clpecondev.files.wordpress.com/2010/03/cbi-brochure-2010.pdf

EXHIBIT 1

Functions of the Full Service Economic Development Program

Mark D. Waterhouse, CEcD, FM, HLM
President
Garnet Consulting Services, Inc.

In a full-service Economic Development Organization (EDO), or in some cases, a multi-organization economic development operation, programs and services generally fall into ten major categories (exclusive of general administrative requirements). These are:

1. Research and information
2. Marketing and promotions
3. Financing and incentives
4. Training and human resource programming
5. Site location assistance
6. Market development
7. Ombudsman and community organization
8. Technical assistance
9. Strategic and long-range planning
10. Catalyst and convener

The **research and information** role includes the acquisition, analysis and presentation of information that supports the economic development program itself or that may be of use to businesses in the EDO's service territory. Some research may be basic and an ongoing requirement, while other research may be customized to meet special needs. The research and information function supports many of the others discussed below. Available information must include both specific communities and the surrounding region.

Marketing and promotions includes both internal and external communications designed to inform others about the EDO's service territory and why it is a good location in which to live, work and operate a business, as well as about the EDO and its services; internal marketing may provide information on the economic development process in general. Marketing activities can be targeted at all types of economic activity, or can be of a more general and educational nature.

Financing and incentives programs include the provision of funding vehicles or other forms of non-cash assistance from governmental, conventional and other sources. Businesses frequently require or desire sources of start-up, working capital, fixed-asset, emergency or other financing. Incentives are a very fluid and wide-ranging topic, changing constantly as states and communities create new programs in an attempt to get a competitive edge. This is a primary area where the public and not-for-profit sectors' role is to leverage targeted resources to obtain private-sector investment.

Training and human-resource programming has two primary components. The first is to assure that available training programs are providing the work force and management skills necessary for today's and tomorrow's jobs and companies. The second component is a broader human-resource focus dealing with employee needs such as day-care, public transportation and affordable housing, all of which can have important impacts on a community's or region's work force.

Site location and infrastructure assistance historically has meant the provision of information on available land and buildings in the community and the transportation and utility infrastructure that serves them. This may be as simple as information on paper or in the computer, or may include site tours, assistance in finding architects and engineers, representation at planning and zoning or other regulatory meetings, and similar services. Increasingly, it also entails the creation of space through

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the development of a business park, adaptive reuse of older facilities, creation of an incubator or speculative building, or other real estate development efforts, including the funding or installation of support infrastructure.

Market development includes activities aimed at helping existing businesses develop new products or find new customers or suppliers. Representative activities include "match-making" between companies with ideas or technologies and those that can use them; assistance in bringing key suppliers or customers of existing companies into the community or region; research related to new product or service lines; identification of unmet market niches existing businesses can meet or new businesses can be recruited for; assistance with export development; and the development of business clusters and networks.

Ombudsman and community-organization services include those activities that bring the town's business and economic development service providers closer together, and help to identify needs that should be addressed and opportunities that can be capitalized upon. It also includes "guide service" through the bureaucracy that can have a major impact on the business climate and impression of business-friendliness that a community or region conveys to its customers.

Technical assistance is the hands-on provision of help required by companies or prospective entrepreneurs. This may entail assistance in preparing a business plan or loan application, arrangement of special services such as legal, accounting, insurance or construction-related, or many other similar activities.

Strategic and long-range planning is the creation of both short-term work programs and longer-range plans and visions. Increasingly, EDOs are being asked to provide significant input to their community's or region's long-range comprehensive planning and vision development. The term "strategic visioning" is frequently used in this context to describe the process through which a community, region or service provider identifies what or where it would like to be at some point in the future, and provides the basis for obtaining or creating the resources necessary to get there. Within that context, the EDO must establish and manage an annual or short-term work program designed to meet community needs and provide a reasonable return on investment. If done properly, this strategic management process is never-ending.

Catalyst and convener is the function that recognizes and capitalizes on the EDO's knowledge of the location's opportunities, challenges and resources, and the leadership role the EDO can play in bringing together and energizing the right resources to capitalize on opportunities, address challenges and correct deficiencies.

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EXHIBIT 2

NEWARK ACTION STEPS SCHEDULE

Initiative/Action Steps	YEAR												OTHER
	2011				2012				2013				
	Quarter				Quarter				Quarter				e.g., on-going, as needed
	1	2	3	4	1	2	3	4	1	2	3	4	
Initiative #1: Greater Newark Development Corporation													
1. City Manager and Director of Planning and Development, with counsel from Newark Network and other stakeholders, identify all agencies that should be part of this Initiative.		X	X										
2. Prepare a detailed Purpose Statement that explains the need for this new structure and primary benefits that will accrue to participants.		X	X										
3. Host an organizational meeting to discuss the creation of such an entity and explore options, impediments, concerns, and other important issues.			X	X									
4. Prepare a detailed analysis of what services are currently being provided by area organizations to identify areas of gaps and duplications, related issues, and desired service improvements.			X	X									
5. Undertake research to identify other places that have undertaken a similar initiative, obtain information on possible organizational forms, and "lessons learned" from these efforts.				X	X								
6. Conduct a planning retreat that explores alternative organizational structures, identifies the type of structure that will work best for Newark and the Greater Newark area, and related legal, staffing, and funding issues.					X	X							
7. Come to agreement on the type of organization or relationship that will best meet the needs of Newark and its allies.						X	X						
8. Take actions necessary to implement that agreement (may include such items as articles of incorporation, bylaws, etc.).							X	X					
9. Conduct a detailed performance evaluation of the new entity and make adjustments as necessary													**1st- 2nd Qtr 2014 and Annually**
Initiative #2: Economic Development Website													
1. Appoint staff person responsible for website improvement.		X	X										
2. Write and issue Request for Qualifications for website review and improvement recommendations.		X	X										
3. Download IEDC Site Selection Standards database guidelines from IEDC website (much of this data has been provided to the City in the SWOT report in Appendix B: Statistical Data; Benchmark Comparisons.		X	X										
4. Establish Data Committee and begin process of populating IEDC Site Selection Standards database.		X	X										
5. Select economic development website specialist to review the economic development portions of the City's website and prepare a detailed list of necessary improvements.			X	X									
6. Write and issue Request for Proposals for website improvements or establishment of new economic development website.			X	X									
7. Select economic development website designer.				X	X								
8. Develop new economic development website including essential data outlined in the IEDC Site Selection Standards database guidelines (transferred from the SWOT Excel file and completed using own efforts or with consultant assistance) and City Real Estate Inventory (see Initiatives #3 and #5).				X	X								
9. Promote availability of new economic development website.				X	X								
10. Maintain website to assure most complete, accurate, and current information.													**On-going**

NEWARK ACTION STEPS SCHEDULE

Initiative/Action Steps	YEAR												OTHER
	2011				2012				2013				
	Quarter				Quarter				Quarter				e.g., on-going, as needed
	1	2	3	4	1	2	3	4	1	2	3	4	
Initiative #3: Available Real Estate Inventory													
1. Assign a person to be in charge of this Initiative.		X	X										
2. Develop a contact list of commercial and industrial real estate brokers and property owners from whom information on available properties is desired.		X	X										
3. Develop a contact list of organizations and individuals (e.g., New Castle County, DEDO, Chamber of Commerce) with whom the real estate inventory will be shared.		X	X										
4. Develop a draft real estate inventory template form showing all information to be collected and included in the inventory.		X	X										
5. Consult with a firm such as LocationOne (http://:www.locationone.com) for insights into a GIS enhanced system and site set up assistance (see Initiative 1)		X	X										
6. Host a meeting of real estate brokers and owners and distribute the draft real estate inventory template form for feedback on information requested in the template. For brokers/owners unable to attend this meeting, provide the draft template electronically and ask for feedback. As all participating brokers/owners for recommendations on others from whom information should be sought or with whom it should be shared.		X	X										
7. Make any necessary revisions to the template.			X	X									
8. Distribute the revised template to the list of brokers and owners and obtain information on available sites and buildings.			X	X									
9. Assure that all available properties are included on the City's economic development website.			X	X									
10. Distribute a monthly checklist of available properties to brokers and owners monthly to solicit updates for the list (both properties to be added and those to be removed).													**Monthly**
11. Maintain the inventory in an accurate fashion on the website and share it with all allies.													**On-going**
Initiative #4: Department of Planning and Development Repositioning													
1. Establish City working team to oversee this effort.			X	X									
2. Prioritize the potential elements listed above and select those to be addressed immediately.			X	X									
3. Take actions necessary to implement highest priority items.				X	X								
4. As a new Greater Newark effort is created, segment work areas into those that make most sense for the City to do and those that should be undertaken by the broader effort.						X	X	X					
5. Undertake improvement efforts as necessary.													**On-going as needed**
Initiative #5: Create a Newark Brand													
1. City Manager and Director of Planning and Development, with counsel from the University of Delaware, the Delaware Technology Park Director, and other stakeholders meet to craft a draft brand for the City that identifies it as a regional technology hub, including a tag line, or positioning statement that corresponds to the image, such as "The Mid-Atlantic's Technical Crossroad." The tag line should be unique, convey the desired image of greater Newark as a technology center, and be geo-specific or have a geographic reference. Avoid over used or trite tag lines.			X	X									
2. Assure that the City has the substance to support its image, including website, promotional materials, available sites and buildings and public school system characteristics (should be conducted concurrently with initiatives # 2, #3, #4, #6, #9, #10).													**On-going**

NEWARK ACTION STEPS SCHEDULE

Initiative/Action Steps	YEAR												OTHER
	2011				2012				2013				
	Quarter				Quarter				Quarter				e.g., on-going, as needed
	1	2	3	4	1	2	3	4	1	2	3	4	
3. Develop a marketing program that contains the brand image, including hard copy promotional material and website content. Conform to DEDO strategy as much as possible.					X	X	X						…and on-going
4. Have the data needed to support the brand image, including data on research conducted in the city and area by the university, private sector and government; employer lists, available sites and buildings for technical operations, company profiles, statistical indicators.													On going
5. Get the Christina School District to understand its critical role in supporting the City's tech center image and brand.			X	X									
6. Conduct an awareness campaign within the City about Newark's role as a technology hub					X	X							…and on-going
7. Send email to site consultants announcing new brand and background on Newark's technical advantages, kick off promotional campaign; possibly including a public relations effort; send press release to economic development publications						X	X						
8. Send out periodic email notices to site selectors updating them on development in greater Newark													On-going
Initiative #6: Christina School District Improvements													
1. Initiate discussions with the Christina School District Board and key staff on the City's Economic Development Master Plan and the role of the District in the Plan. Discuss the importance of the District as a key player in the plan's development and the City's future. Lay out a methodology for the ongoing involvement of the District. Should be conducted concurrently with Initiative #3.		X	X										
2. Engage the District as a partner in the City's economic development program		X	X										…and on-going
3. Create with the City and stakeholders, a network of support for the District to set goals and realization of those goals, identifying the specific support role to be played by each stakeholder			X	X									
4. Indentify school districts in other technology centers to use as performance benchmarks and best-case examples.				X	X								
5. Establish specific performance goals to be established by the District over a five-year period.				X	X								
Initiative #7: Cost-of-Doing Business Analysis													
1. Appoint an individual or create a work group to oversee this analysis.			X	X									
2. Prepare a list of study factors and relevant measures for each.			X	X									
3. Create a model project for use in collecting comparison cost information.			X	X									
4. Identify those areas with which Newark will compare itself.			X	X									
5. If consultant assistance is to be used in this analysis, prepare and issue a Request for Proposals and select the consultant.			X	X									
6. Complete the data collection and analysis for the costs of the model project in Newark and the comparison locations.				X	X								
7. Identify cost advantages of a Newark location that can be marketed and cost disadvantages that should be reduced of offset.					X	X							
8. Take appropriate marketing and/or corrective actions.						X	X						
Initiative #8: Permit and Approval Review and Improvement													
1. Director of Planning and Development and City Manager establish an effective structure and process for continuation of the		X	X										

NEWARK ACTION STEPS SCHEDULE

Initiative/Action Steps	YEAR												OTHER
	2011				2012				2013				
	Quarter				Quarter				Quarter				e.g., on-going, as needed
	1	2	3	4	1	2	3	4	1	2	3	4	
City's Permit and Approval Process improvement efforts (this may be a continuation of the process already in place) and publicly communicate those efforts.													
2. Research the City of Phoenix, AZ, City of Raleigh, NC and other locations that have made similar efforts to improve and streamline their development permit and approval process and identify approaches that could be replicated by Newark.		X	X										
3. Regularly invite input and/or participation by the business community, in particular architects, engineers, developers, commercial real estate brokers and representatives of projects that have recently been through Newark's permit and approval process, to solicit feedback and ideas on how the process is working and how it can be further improved.													**Semi-annually**
4. Make recommendations for improvements expeditiously, and seek enactment of those improvements by appropriate boards and commissions where appropriate.													**As needed**
5. Communicate changes in regulations and the development process to appropriate agencies and departments, to the City's development community, and to the public.				X	X								**As needed**
6. Prepare a Development Process flowchart for inclusion in the City's new Code Enforcement Procedures Manual and make it available on the City economic development website.													To coincide with development of the Manual
7. Communicate the availability of the Code Enforcement Procedures Manual to the City's development community and general public.													**When Manual is available for distribution**
8. Continue efforts to improve the City's permit and approval process as necessary.													**On-going**
Initiative #9: Economic Diversification Land													
1. Prepare a list of items needed for "shovel-ready" certification using the Oregon model (available via a link on www.uscertifiedsites.com).			X	X									
2. Prepare a site-assessment form including but not limited to the factors listed above, showing status; have all supporting material available in a three-ring binder for easy access by prospects, and in a backup file.			X	X									
3. Prepare a master list of properties in Newark suitable for business development or redevelopment.			X	X									
4. Complete a site assessment form for each identified property. Identify any site weaknesses that make it less than fully shovel-ready, and a plan and schedule to work with the owner(s) to make the property shovel ready.				X	X								
5. If an identified property is not actively on the market, discuss its availability with the property owner.						X	X						
6. For improvements that should be made by the property owner (e.g., lack of a Phase 1 environmental assessment or wetlands mapping, need for selective demolition), work with the owner to establish and implement a plan for correcting deficiencies.							X	X					
7. For improvements that can and should be made by the City (e.g., necessary zoning change, inadequate road access or utilities), include the cost of such improvements in the City's Capital Improvement Plan and Budget.							X	X					
8. Undertake site and infrastructure improvements as necessary.													**As needed**
9. Assure that all shovel-ready sites are included in the City's Available Real Estate Inventory (see Initiative #3), are marketed on the City's economic development website (see Initiative #2), and all allies with property marketing programs are aware of the							X	X					**…and on-going**

NEWARK ACTION STEPS SCHEDULE

Initiative/Action Steps	YEAR												OTHER
	2011				2012				2013				
	Quarter				Quarter				Quarter				e.g., on-going, as needed
	1	2	3	4	1	2	3	4	1	2	3	4	
properties.													
Initiative #10: Target Industry Recruitment													
1. Create an advisory council or group for each of the City's four target industries. These groups should consist of City and area employers; university professors and key administrators; representatives of the Delaware Technology Park, and other target-specific experts, such as representatives of the Delaware Biotechnology Institute and the Delaware BioScience Association, DEDO, and employers from the banking and insurance sectors of New Castle County (for the back office target). Each group should act as a resource to the City to advise on policies and actions for the City to follow, advice on marketing positions to take, provide industry contacts for direct mail and other marketing efforts, attend trade shows with City Staff and to promote the City at these trade shows as a place to locate a facility, and meet with prospects visiting the City. These groups should also serve as advisors regarding real estate and infrastructure development needs, development and maintenance of industry attractive operating environments (and also serve as advisors to the state for development of industry attractive regulatory environments); development of university and industry relationships, and advisor on industry trends.				X	X							
2. Using the material provided in the target profiles, advice from the advisory councils and area developers, identify sites in the City best suited to the target industries (coincides with Initiative #3) development of new sites and buildings suited to the target industries (coincides with Initiative #9).				X	X								
3. Using the information from the target advisory councils, craft target-specific information on the City's website (coincides with Initiative #2), and development of marketing messages and promotion methodologies that would get attention from companies within the target industries.					X	X							
4. Coordinate marketing efforts with the University of Delaware and DEDO.													**On-going**
5. Consult with a consulting firm to do a feasibility study for development of a business incubator, such as Innovative Partners (www.innovativepartners.com					X	X							
Initiative #11: Prospect-Servicing Plan													
Overall Prospect-Servicing Plan													
1. Establish a Prospect Servicing Team.		X	X										
2. Create a master list of all topics related to prospect servicing that the City should be prepared to handle; for example:		X	X										
a) Who is the point person responsible for responding to initial prospect inquires?													
b) How will information on leads be shared with allies?													
c) What standardized information will be available to provide to prospects?													
d) How will the City assure prospects receive the information most valuable to them?													
e) What criteria will be used to determine if a prospect will be invited to visit?													
f) If a prospect is invited to visit, what are the policies for handling hotel accommodations and meals													
g) How will a customized community tour route be established?													

NEWARK ACTION STEPS SCHEDULE

Initiative/Action Steps	YEAR												OTHER
	2011				2012				2013				
	Quarter				Quarter				Quarter				e.g., on-going, as needed
	1	2	3	4	1	2	3	4	1	2	3	4	
h) What are the roles of prospect servicing team members in prospect tours?													
i) What other items are parts of the City's prospect-servicing plan?													
3. Capture all topics and City policies in a written prospect-servicing plan.				X	X								
4. Select a prospect tracking system and metrics to allow periodic evaluation of marketing methods and prospect servicing efforts.				X	X								
5. Evaluate prospect servicing and marketing efforts annually.													**Annually**
Prospect Servicing Team Training													
1. Identify all City staff, board, and commission members who are or should be part of the City's economic development team (including but not limited to the Mayor, City Manager, Building Official, Planning & Development Director, Fire Marshal, Electric Department Director, Water & Wastewater Director, Tax Assessor, Planning Commission, Downtown Newark Partnership, Conservation Advisory Commission).		X	X										
2. Contact the MetroHartford Alliance to obtain detailed information on their EDPO program.			X	X									
3. Develop a Newark-specific agenda for an EDPO session in Newark.			X	X									
4. Schedule a Newark EDPO session, arrange all logistics (speakers, location, AV equipment, handouts, refreshments, etc.) and invite all appropriate City staff and boards and commissions members.			X	X									
5. Conduct the EDPO session.				X	X								
6. Schedule additional EDPO sessions as City staff, board, and commission members change.													**As needed**
Prospect Tour													
1. Designate someone to be the tour leader and others who will be tour participants, either in the vehicle or at specific tour stops.		X	X										
2. Prepare a master list of those portions of Newark and the Greater Newark area that should be included in a typical prospect tour, including:		X	X										
a) Business parks, major available sites and key available buildings													
b) Downtown Newark													
c) Access routes to I-95													
d) University of Delaware													
e) Executive housing areas													
f) Major recreational areas													
g) Existing major employers and representative employers within the targeted business sectors/clusters (for private interviews by prospect companies)													
h) Possible places to stop for a meal or restroom break (Be prepared to entertain prospects at an area restaurant, such as top ones in the downtown, in a private room or corner if at all possible; the City would have to pay for the meals and drinks.)			X	X									
i) Individuals that could host a reception at their home or business			X	X									

NEWARK ACTION STEPS SCHEDULE

Initiative/Action Steps	YEAR												OTHER
	2011				2012				2013				
	Quarter				Quarter				Quarter				e.g., on-going, as needed
	1	2	3	4	1	2	3	4	1	2	3	4	
j) Have access to an attractive, comfortable, clean van if there are multiple visitors coming to the City in one trip, or a luxury car/SUV if there are only one or two prospects (the car or van, including the trunk, must be clean and free of all personal material).			**X**	**X**									
3. Map all tour elements.													**As needed**
4. Select the most efficient routing for the tour.													**As needed**
5. Create a set of talking points for each stop on the tour and for travel time between each stop.													**As needed**
6. Drive the tour, rehearse the presentation, and time the tour.													**As needed**
7. Make adjustments in the script and/or route to provide the most effective tour.													**As needed**
8. Ascertain from the prospect making the visit what community elements they would like to see (or not see) and make any necessary adjustments in the tour to accommodate the prospect's requirements.													**As needed**
9. On the day before any tour, drive the route to observe any conditions (for instance, street construction) that necessitates a modification in the tour route.													**As needed**
10. Prepare a map of the tour for the prospect.													**As needed**
11. Immediately after each tour, create a set of notes on what worked well and what requires adjustment.													**As needed**

City of Newark, Delaware

ECONOMIC DEVELOPMENT PLAN

Executive Summary

January 2011

Chrysler photo credit: Christopher Ziemnowicz

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TABLE OF CONTENTS

INTRODUCTION

The Economic Development Plan (EDP) for the City of Newark consists of six documents:

1. *Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis*
2. *Target Industry Analysis: Administrative Custer Services*
3. *Target Industry Analysis: Information Technology-Computer Systems Design and Related Services*
4. *Target Industry Analysis: Professional, Scientific, and Technical Services*
5. *Target Industry Analysis: Research and Development Centers*
6. *Economic Development Strategy and Action Plan*

The EDP is founded on information obtained through interviews with employers and key-influencers in Newark and New Castle County and with state government officials, an analysis and review of key statistical and other secondary-source information, and the responses received from a survey of City employers.

The results of this research provided critical information leading to an understanding of the City's:

- Marketable strengths that can be capitalized upon
- Product deficiencies that can be corrected cost-effectively
- Development opportunities
- Issues having an impact on its and the region's economic development future
- Obstacles to development

The gathered information also provided a strong background understanding of Newark as an "economic development product" and of the strengths and opportunities, deficiencies and obstacles, and issues that will shape the City's economic development future. The results of the research on these issues are provided in the *Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis* report.

The research further pointed to four industries for targeted attraction and local development efforts by the City. These targets, profiled in the four submitted target reports, were selected as those industries and business operations that offer the best attraction and development opportunities for the City within the industrial, office, and technical business sectors.

The SWOT analysis and the targeted industries provided the foundation for development of a vision statement and overarching goals for the City's economic development over the next 10 years. Once these were completed, an economic development strategy consisting of 11 initiatives to be pursued by the City was crafted. These initiatives address ways the City can enhance its economic development with the greatest positive impact and return on its investment. An action plan was subsequently created containing an implementation program for each of the 11 initiatives. The vision statement, economic development goals, the strategy and the action plan were included in the Economic *Development Strategy and Action Plan*.

SWOT ANALYSIS

The City of Newark, Delaware's third-largest city, offers employers many opportunities as a location for a variety of facilities across industry lines, but its greatest opportunities are offered to technology-based operations in the fields of engineering; mathematics; advanced materials, energy and bioscience research and development; information technology services; manufacturing; and financial services. As the home of the University of Delaware and some of the nation's leading technology-focused companies, the City serves as a technology center in the New York-Washington, DC corridor. It also offers an excellent location for technology-directed entrepreneurial operations that need access to a university committed to technology transfer and resource accessibility.

The City also is a perfect location for operations requiring superb access to a large regional market, and for firms seeking immediate access to a high-performing, young, talented, and well-educated workforce with strong technology-focused skills.

Some of the principal assets offered by the City include:

- An excellent central location within the middle-Atlantic States. The City is in the Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA, a metro area with a 2009 population of 5,850,000. It is 15 miles from Wilmington, 46 miles from Philadelphia, 103 miles from New Brunswick, 132 miles from New York, 97 miles from Washington DC, 62 miles from Baltimore, and 23 miles from the Aberdeen Proving Ground (APG). There is direct Amtrak service to all of these cities, and there are international hub airports at nearby Philadelphia and Baltimore. Newark is directly served by route I-95, the east coast's north/south interstate backbone.
- A labor market of almost 835,000, supported by solid, measured population growth that exceeds the national average. Within this labor pool is significant knowledge capital.
- A young City population, driven by the large base of undergraduate and graduate students at the University of Delaware. The City's median age is well below the national norm.
- A highly educated City population, with over half of the residents having at least a four-year college degree, more than twice the U.S. average; and a well-educated population within the City's principal labor shed, with almost 29% of the adult residents having four years of college or more
- A middle-to-upper-income household profile
- A diversified county employment base, with particular depth in healthcare, finance and insurance, and professional and scientific services
- Location in a county with employment clusters in
  - business and financial services
  - Biomedical/biotechnical (life sciences) fields
  - Computer and electronic product manufacturing
  - Information technology and telecommunications
- Location in a county with a broad and diverse occupational depth, including 13 defined occupational clusters, of which the top four are:
  - Mathematics, statistics, data, and accounting, including financial specialties
  - Natural sciences and environmental management
  - Information technology
  - A collection of technology-based knowledge clusters, including a variety of engineering disciplines
- A labor supply large enough to allow an office or manufacturing employer to staff up to 1,400-1,600 positions in the first year of operation
- High labor quality
- Satisfactory-to-good availability of many key skills across industry lines
- Location in the greater New York-to-Philadelphia pharmaceutical belt, providing ideal access to industry skills, major companies, industry-focused universities, and the National Institutes of Health in Bethesda, Maryland (96 miles to the southwest via I-95). The City's labor shed includes the southern portions of greater Philadelphia, home of a large technical and professional population.
- A welcoming and nurturing environment that has attracted an international professional and academic community
- A strong technical resource base and operating environment that includes the University of Delaware (a Carnegie Foundation high research activity University), the Delaware Technology Park (a nationally recognized park for its incubation successes, depth of university affiliation and tenant base), the Delaware BioScience Association, and the Delaware Biotechnology Institute. Meanwhile, several highly regarded technology-based firms are either headquartered in Newark, or have major operations in or proximate to the City, including W.L Gore and Associates, E.I. DuPont de Nemours and Company, AstraZeneca, and Siemens Healthcare Diagnostics.
- Aberdeen Proving Ground (APG), located 23 miles southwest of the City, will be expanding significantly in the next two years due to the latest round of the U.S. Department of Defense's BRAC initiative. This expansion will bring in a significant number of army personnel, civilians, and high-technology defense contractors. There will be an expansion of R&D activities at APG and in surrounding locations. Newark is the closest city to APG, and

the University of Delaware is the closest category-one research university to the site. Spin-off activities could result from research at APG.

- The BRAC expansion of APG, which is bringing more residents into the Newark area. New Jersey civilian transferees from Ft. Monmouth are relocating to Newark and its environs because of the opportunities for spousal employment and urban amenities in northern New Castle County. The University of Delaware's offer to give in-state residency designation to relocating APG employees if they move to Delaware is providing a strong attraction for personnel relocation to the state.
- Nearby Wilmington, a financial center for the credit-card industry and a major corporate law center. Other notable industries include insurance (American Life Insurance Company [ALICO], Blue Cross and Blue Shield of Delaware) and retail banking (including the Delaware headquarters of Wilmington Trust, PNC Bank, Wachovia Bank, JPMorgan Chase, HSBC, Citizens Bank, Wilmington Savings Fund Society, and Artisans' Bank). These industries and companies provide important industry diversification to the New Castle County economic base and offer employment opportunities to spouses of Newark-company employees.
- Sallie Mae announced it will be relocating its corporate headquarters from Virginia to a location just outside the corporate limits of Newark by March 2011.
- Ten area colleges and universities, with numerous degrees awarded in multiple technical and business-oriented disciplines. The University of Delaware, the area's largest university, is a Land Grant, state-assisted, privately governed institution. Its professors are free to consult and partner with area companies. The University's Office of Economic Innovation and Partnerships seeks to establish the University as a renowned center for innovation, invention, entrepreneurship, partnering, and economic development. The office serves as a gateway for outside entities to access the university's assets, including patents.
- Very good quality of life, including a moderate cost of living within the New York-Washington D.C. corridor and excellent healthcare facilities
- An attractive and vibrant downtown
- An attractive business-operating environment that includes a pro-business state. Delaware's small size allows legislative action to be taken faster than in larger states frequently burdened by political gridlock.
- A 270-acre site that will be developed by the University of Delaware as its Research and Technology Campus. The site is Newark's former Chrysler automobile-manufacturing plant. The site is to be devoted to three business clusters: health and life sciences, energy and environmental technology, and operations related to Aberdeen Proving Ground.
- More than adequate water, sewer, telecom, natural gas, and electric capacity. Newark is well served with a full network of utility and telecommunications services, and the city has enough water and sewer capacity to adequately meet future opportunities.
- Low to moderate real estate taxes
- A reasonable inventory of available warehouse space for a wide size range
- A Downtown Newark Partnership website that provides a good listing of available space in the Downtown.

Newark, however, has some economic development challenges that need to be addressed if the City is to realize its full economic potential. These include:

- Over the past several years, New Castle County's employment base has been concentrating into fewer sectors, losing economic diversity.
- Employment in the county has been stable for the past five years. The number of county employers is growing, but these employers are, on average, having fewer employees.
- County manufacturing employment is shrinking and becoming concentrated into fewer sectors.
- Newark employers report that labor availability is tight in three key occupations: management, mechanical engineers, and financial analysts.
- Small biotech firms' ability to hire is dependent on the actions of larger area pharmaceutical companies. When these larger firms are hiring, smaller firms have recruiting difficulties, and are subject to a loss of employees to

the larger firms; however, when these larger firms are laying off employees, a rich pool of talent becomes available.

- The Christina School District shows unfavorable statistics, including high dropout and low graduation rates, and low standardized test scores. Interviewed employers report that many of their managers and professional employees prefer to live in southern Chester County, Pennsylvania and other locations within New Castle County, such as Bear and Middletown, for access to better public schools.
- A crime rate that is above the U.S. average
- No centralized inventory of available business real estate other than the Downtown. There is an overall inadequate amount of available commercial and industrial real estate information, and some of the data that is available may be out of date.
- A shortage of office, R&D, industrial, and flex space to meet the needs of new and expanding companies. This situation poses a disadvantage for business recruiting and economic diversification.
- Real estate that is more expensive than elsewhere in the county. In Newark the asking rental price for industrial properties—which are generally aimed at warehouse use—is slightly higher than similar properties outside the City limits.
- Available office and industrial properties are only for lease. This puts the City at a disadvantage for attracting companies that may prefer to own property.
- Information on the Downtown Newark Partnership website is sometimes incomplete, because property owners or brokers have not provided adequate detail.
- A City website that is not designed for economic-development use
- Downtown parking shortages and traffic congestion that adversely affect current downtown businesses and affect the ability to attract new business activity and to diversify and expand the downtown business base
- High industrial/commercial electric power rates, coupled with issues about service quality
- Lack of comparative information on electric power rates and quality ratings compared with other locations with which Newark competes
- An absence of dual-electric-feed capability to business sites
- The City has limited control over two major issues affecting its future:
  - Quality of the public school system
  - Development of the University of Delaware's Research and Technology Campus
- The City Planning and Development Office does not receive recognition for its economic development work.
- Mixed reviews on the City's permit-and-approval process
- Traffic congestion is created in the City because there are only three east/west routes through Newark.
- Passenger-rail service into Newark is currently limited, but improvements are planned.

Conclusions

From these findings, the following conclusions are drawn:

- Newark's technical base balances the financial services base of Wilmington, giving New Castle County a foundation for solid future economic development, although continued efforts at economic diversification are needed.
- The County is going through a transition in which employment in manufacturing and other sectors is declining.
  - The employment base is concentrating into healthcare, education, and finance. Employment and the number of establishments in these sectors (except for healthcare) are growing faster than the national average.
  - Despite a decline in the county's employment in professional and technical services, the City has potential to see growth in this sector.

  - The City has an excellent foundation to diversify its economy more definitively into high-technology sectors because of its base of existing companies, the University of Delaware, the Delaware Technology Park, APG defense contractors, and entrepreneurial spinoffs, among other assets.
- The University is a significant key to the City's future and the remaking of its economy, and therefore needs to play a larger role in the City's and area's economic development efforts.
- The City has a real potential to be the hub of a large and diversified regional technology center, led by the efforts of the University, area companies, institutes, and associations. It already is a technology center, but has the potential to become a much greater regional and even national hub.
- As the closest and largest urban center to APG, the location with the largest labor pool, and as home to the University of Delaware, Newark offers the APG-related prime and non-prime contractors an excellent opportunity to locate facilities in the City, given adequate availability of suitable and competitive buildings and sites.
- The under-performing Christina Public School System is adversely affecting the City's economic development future. Professionals, technicians, and managers with school-age children and working for companies in the City and its environs will see the City as a lower-choice community in which to live, choosing instead to live in communities with better-performing schools. Meanwhile, the Christina School District should produce the number of graduates with the skills needed by current and future employers; otherwise the employers will hire residents of areas that have the skills needed.
- Newark's potential will be further limited unless the City can provide what will be needed to meet the demands for growth and change, including:
  - A more efficient and effective way of providing current and complete real estate and other economic-development-related information
  - Additional real estate product that meets the needs of business and industry
  - An effective website that provides needed economic-development-related information to businesses and site-location consultants
  - Stronger levels of communication and cooperation between the City, the University, and area companies
- Because of the City's many assets, it has the destiny to be a regional economic-development leader, and it should assume that role. A new, broader vision of the City matching this destiny is needed.
- The University of Delaware is a major factor in the City's and region's economic development, and shares with the City the destiny to lead the region's growth and economic transition. Other agencies and organizations in the area, such as the New Castle County Chamber of Commerce/New Castle County Economic Development Council, the Downtown Partnership, the Delaware Technology Park, the Delaware Biotechnology Institute, the Delaware BioScience Association, and New Castle County are also key players in the region's growth and prosperity. Combined, these entities form a community of partners that must act in concert, leveraging their respective resources for the region's potential to be realized.
- Among the City's economic-development influencers, the University in particular needs to recognize its role in the City's and the area's economic development, and act in concert with the City in proportion to its significant impact.
- The City's role as an economic-development leader in the county and state must be better defined and communicated. Economic development must be understood to include much more than retail-related functions and downtown vibrancy.
- Current City economic-development programs are well run and should continue. However, despite an impressive list of both ongoing and project-specific programs, neither the City nor the Planning and Development Office are recognized as major economic-development players.
- A stronger City economic-development team is desirable, with an expanded program, possibly in conjunction with other area economic-development agencies, including:
  - Business Retention and Expansion that includes all-size companies.
  - Product development, such as seeing that: an adequate real estate inventory exists; business sites are "shovel-ready" and competitively priced; promotional literature is developed; and supporting databases

are complete and up-to-date on sites, labor force, incentives, taxation, employer lists, and information on utility availability, quality, and cost.

  - Marketing and pro-active business attraction, including maintenance of an effective website.
  - Directing economic-development services in the Greater Newark Region in cooperation with the University, DEDO, and other economic development agencies and area stakeholders.
- Continued efforts to improve the City's permit-and-approval process and to promote those improvements are necessary.
- Strong attention to the City's Downtown must continue.
- The current study to resolve downtown traffic and parking issues is important, since improved traffic flow and parking opportunities are necessary.
- Dissatisfaction with electric reliability and costs are an issue for business recruitment and retention, and must be addressed.
- Improved passenger-rail connections or service via SEPTA, MARC, and AMTRAK would have a significant positive impact on the City.
- A more efficient system for collecting and providing up-to-date, complete, and accurate information on available properties is needed as part of Newark's economic-development efforts.
- The development of the University's 270-acre Science and Technology Campus (the Former Chrysler complex) will be an important improvement in Newark's business real estate availability.
- Most future property-tax growth will come from redevelopment or annexed properties, because Newark is largely built out.
- The City's trail network and park system not only contribute to the City's quality of life, but could also provide a focus for related business-development opportunities.

Recommendations

The following recommendations are offered for consideration by the City:

- Create a public/private partnership with the University, the Chamber of Commerce, New Castle County, the Delaware Biotechnology Institute, the Delaware BioScience Association, the Delaware Technology Park, and all other agencies or organizations active in economic development. One possible form of such a partnership is an Economic Development Corporation. This new organization could be charged with implementing the recommendations emanating from this study and implementing the strategic plan.
- Refocus and expand the City's Department of Planning and Development to include:
  - Continuation of the focus on Downtown development and promotion
  - More systematic City-wide business retention and expansion efforts, including small employers and employers outside of the downtown
  - Maintenance of a steady communication stream with all employers in the City on trends, events, and updates
  - A visitation and relationship-building program to City employers
  - Development, through the private sector, of a business park in newly annexed land
  - Investigation, over the long-term, into development of business parks in the county in which the City has an equity partnership. Alternatively, the partnership could be with other members of the area's economic development community, such as the University. State legislative approval probably would be needed to realize this goal. Other states, such as Maine and South Carolina, have such partnerships and related legislation. The amount of equity each partner has in the business park is typically based upon the amount of investment made. Tax revenue, leases, and other income received would be shared by the partners in relationship to the equity held.
  - Working with owners of vacant buildings to prepare their buildings and sites for market needs

  - Developing new marketing material and redeveloping the City's website for economic-development uses
  - Renaming the Department to the *Department of Development and Planning* to emphasize the importance of development
  - Conducting an economic-development educational program for City staff and Board & Commission members
  - Revising the City map to show all business parks
  - Developing a scripted prospect tour
  - Creating a broader "Buy Local" program to support merchants
  - Increasing a focus on tourism
- Encourage and lead the Christina School District (CSD) to improve its performance to match the indicators, first of the top-ranked schools in the state, then of the top schools in the nation's leading technology centers (e.g., Raleigh/Cary, NC; Princeton, NJ; and Austin, TX), and provide graduates that meet the needs of the City's employers. Partnerships with area companies are urged.
- With the University of Delaware, the Newark Network, the Chamber of Commerce, and other economic-development partners, institute biotech and other technology-related high school internship programs in the CSD coupled with employers in the City and elsewhere in New Castle County, and partnership programs within the entire K-12 system and the University. Institute a strong Science, Technology, Engineering, and Mathematics (STEM) program in the school district.
- Urge the University to become an active partner with the Christina School District, especially with "Race to the Top" initiatives.
- Include Newark Network members as volunteers in implementing some of the elements of the expanded City's and community's economic-development program, such as in outreach to employers.
- Develop, with DEDO, a consolidated, up-to-date, real estate database that includes property information and community data.
- Create a vision of the City's role as a regional technology and innovation hub. Develop a Greater Newark brand.
- Expand economic-development services beyond the City limits.
- Expand the current attraction program for niche retailers.
- Initiate significant improvements to the portion of the City's website devoted to economic development to meet the needs of business attraction, expansion, retention, and entrepreneurial development.
- Continue exploration of options for additional Downtown parking.
- Aggressively seek to complete the rail linkage between Philadelphia and Baltimore/Washington, DC once planning has been completed.
- Prepare an electric-cost-comparison model of Newark, DP&L, and other DEMEC communities. This may be a portion of a larger comparative cost analysis of doing business in Newark versus other locations.
- Consider reducing the electric rates for larger power users and balancing the lost revenue with higher rates on residential customers and through other revenue sources. The electric rates charged to small users must be watched closely, as high rates may drive away the City's emerging and existing small businesses and entrepreneurial operations developed through the University's and Technology Park's efforts.
- Market more effectively the City's Industrial Tax Incentive Program and Economic Development Electric Rate Discount Program.
- Continue the process for identifying weaknesses in the City's permit-and-approval process, making improvements, and informing the development community about those improvements.

TARGET INDUSTRIES/OPPORTUNITIES

There are four industrial/office sectors identified as offering the best opportunities for the City's business attraction and development program. This selection is based upon the City's unique blend of assets and industry locational needs and trends. These industries and their subsectors are:

1. Research and Development Centers
   - Research and development in Biotechnology
   - Research and development in Physical, Engineering, and Life Sciences
2. Administrative and Customer Services
3. Information Technology/Computer Systems Design and Related Services
   - Custom Computer Programming Services
   - Computer Systems Design Services
   - Computer Facilities Management Services
4. Professional, Scientific, and Technical Services
   - Engineering Services
   - Environmental Consulting Services
   - Human Resources Consulting Services
   - Other Management Consulting Services
   - Other Scientific and Technical Consulting Services
   - Defense-Related Consulting

ECONOMIC DEVELOPMENT STRATEGY AND ACTION PLAN

Vision Statement and Development Goals

The following vision was developed using input received from stakeholders and employers during the research conducted for the SWOT report analysis. This vision and the related goals serve as a guiding foundation for the City's economic development program over the next 10 years:

> ***"In 2020, Newark, Delaware will be internationally recognized as a regional hub of science, technology, and higher education. Its research, science, and technology sector will be the core of a diversified economy providing well-paying jobs for workers from a multi-state area. Downtown Newark and its shopping and entertainment opportunities will be a destination for regional residents and global visitors, as well as a sought-after business location. Newark's economic sector will be a key component of its highly desirable quality of life."***

The unifying theme of the City's economic development program is to create and sustain a multi-faceted economic base that includes research and development, technology-oriented and other manufacturing, office operations, retail and services, and other types of uses that may find Newark an attractive location. This will be accomplished through a combination of the following goals:

- Diversified business attraction
- Existing business outreach and assistance for retention and expansion
- Entrepreneurship and small-business development
- Sustainable downtown physical and economic vitality
- Community development and redevelopment

Strategy Plan

The eleven initiatives of the Strategy Plan build on the findings from the SWOT Assessment and the Target Opportunities/Industries Analysis, and on some important items on which the City or other agencies are already working, such as:

- Continuing efforts to improve Downtown Newark, including real estate development, merchant recruitment, niche retail development, promotions and marketing, and parking
- Development of the University of Delaware's Science & Technology Campus
- Improvements to train service into Newark and the train station area
- Transportation improvements through an updated Transportation Plan
- Streamlined code enforcement.

The eleven initiatives are:

1. Establish a Greater Newark Development Corporation (GNDC) or similar structure, in the form of a public/private partnership with broad representation from all institutions that have an impact on the City's economic development opportunities. This agency would serve as the keystone to the Greater Newark Economic Development program.
2. Create and maintain a webpage specific to the City's economic development programs and services. Recommendations from an expert on economic development website content and function are necessary.
3. Create and maintain an Available Real Estate Inventory specific to properties within the city limits, with a dedicated section for Downtown.
4. Reposition the City's Department of Planning and Development to emphasize its economic development mission with expanded use of the Newark Network and leadership in the Greater Newark Development Corporation (see Initiative #1).
5. Brand Newark as a regional technology and innovation hub, and create and fund a related marketing program.
6. Conduct efforts to improve the Christina School District, including a focus on Science, Technology, Engineering, and Mathematics. This effort is necessary to implement the brand suggested in Initiative #5, and must include improvement in basic-skills testing, graduation rates, and similar measures. Encourage area companies within the District to have a variety of partnership programs with the School District.
7. Prepare an analysis of the cost of doing business in Newark versus other competing locations, including an electric-cost-comparison model of Newark, DP&L, and other DEMEC communities.
8. Continue the process of improving the City's business climate and/or the perception of the City's business-friendliness by taking actions necessary to identify and correct problems in the City's regulations and procedures, and to communicate those improvements effectively.
9. Identify land in the City with development or redevelopment potential for industrial, office, and R&D operations, especially those within the four target industries, and take appropriate actions with the owners to make those sites shovel-ready.
10. Develop, fund and implement aggressive and effective business attraction/retention/expansion and startup programs for targeted industries identified in Task 4 of this project to diversify and strengthen the City's economic base. This would include investigation into the feasibility of a general business incubator.
11. Create a strategy for hosting business prospects visiting the City.

Action Plan

The Action Plan pinpoints specific steps for the City and its partners and stakeholders to take for implementation of each of the eleven initiatives of the Strategy Plan. The Action Plan includes, for each initiative, a schedule for implementation, identifies agencies or individuals to be responsible for implementation, the resources needed, and performance measures to gauge the City's success in meeting the Plan's goals. The Action Plan also provides supplemental information to assist the City in beginning implementation.

CITY OF NEWARK, DELAWARE

TARGET INDUSTRY ANALYSIS: Administrative and Customer Services

October 2010

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CONTENTS

INTRODUCTION

This target-industry-identification report is the product of a contract between the Wadley-Donovan Group (WDG), with Garnet Consulting Services, Inc., serving as a subcontractor, and the City of Newark, Delaware. This report is being submitted in conjunction with three other target reports: Information Technology: Computer Systems Design and Related Services; Professional, Scientific and Technical Services; and Research and Development Centers. Also being submitted is a Strengths, Weaknesses, Opportunities and Threats (SWOT) assessment of the City; and an Economic Development Master Plan.

The findings presented herein are those of the WDG Team only. We have examined the City from a corporate location perspective and from our knowledge of corporate locational trends, decision-making factors, and economic-development best practices and activities.

Sources for the information found in the report include the U.S. Bureau of Labor Statistics, ReferenceUSA, Datamonitor, and others.

DEFINITION

The back office and administrative services target consists of in-house administrative services and firms serving as third-party administrative service providers (NAICS 561110). In-house administrative services do not have an assigned NAICS code, as they are considered a function within companies operating across all industry lines, and, therefore, operate under a variety of NAICS codes. In-house administrative services frequently operate in stand-alone back offices located separately from company headquarters.

1. Office Administrative Services (NAICS 561110)

Definition: This target consists of establishments primarily engaged in providing a range of day-to-day office administrative services, such as financial planning; billing and recordkeeping; payroll; and physical distribution and logistics services on a contract or fee basis. These establishments do not provide operating staff to carry out the complete operations of a business.

Examples of functions within the NAICS Code include:

- Administrative management services
- Business management services
- Executive management services
- Contact centers (call centers, teleservice centers, customer service centers, customer relations centers)
- Management services (except complete operation of client's business)
- Managing offices of dentists
- Managing offices of physicians and surgeons
- Managing offices of professionals
- Medical office management services
- Hotel and motel management services (except complete operation of client's business)
- Office administration services
- Office management services

2. Office Administrative Services: in-house (No NAICS Code Assigned)

Examples of in-house administrative functions include:

- Human resource services, including payroll and benefits
- Accounting
- Customer service, including customer contact centers
- IT Support

- Sales support
- Public relations support
- Account management
- Portfolio management
- Shareholder services

BUSINESS PROFILE OF THE OFFICE ADMINISTRATIVE SERVICES SECTOR

Administrative and customer service centers provide support functions for a variety of corporate activities and customer management needs. This sector is diverse, but the facilities within this target share the common element of being white-collar operations with well-educated employees. The sector's workforce is typically dominated by individuals with two- or four-year college degrees and high levels of administrative, clerical, accounting, professional, or technical skills. The types of industries that operate such centers include retail, financial services and insurance, manufacturing, transportation, software, utilities (including telecom and cable companies), and other business sectors.

- Administrative service centers are facilities where administrative workers engage in corporate office-support operations, such as processing orders, billings, claims, accounts receivable and payable, and similar tasks. Almost all business sectors have functions that could be characterized as administrative and operation support centers.
- Contact centers (call centers, customer management centers, customer support centers, and technical support centers) include operations where customer service representatives (CSR's) receive telephone calls (and/or e-mail inquiries) regarding consumer complaints, concerns about a product or service, and/or inquiries about a product's or service's specifications, availability, and pricing. They may also receive questions regarding billing, fraud, or losses (e.g., credit or debit cards). They also offer technical support. These centers typically assist callers seeking:
  - User support of a product or service
  - To enroll in a membership or similar service
  - To discontinue a membership or similar service
  - To alter the provisions of a membership or similar service
  - For authorization to proceed with the provision of a service, policy, or product
  - To purchase a product or service
  - To acquire warranty, technical, policy, financial, or service information
  - To manage an account or subscription

Almost all industries have functions that could be described as *customer service*, but those with the largest customer-service operations include:

- Consumer-goods manufacturers (e.g., cosmetics, health and beauty aids, computer hardware, electric and electronic gear, appliances, automotive products)
- Software firms
- Insurance companies and HMOs
- Banking and financial services
- Credit card services
- Telecommunications-related companies
- Travel and hospitality firms (including airlines, hotels, and car rental companies)
- Transportation and related companies
- Publishing firms
- Fulfillment centers

- On-line services
- Major retailers
- Express delivery companies

As shown in Table 1, U.S. employment in third-party administrative centers is around 400,000; average employment per establishment is small; and average per-person annual earnings are relatively high at $70,251.

Employment among in-house administrative centers is much larger, as most companies prefer to keep the major portion of their administrative functions within their company. There are over 22.5 million people employed in administrative occupations across the country.

TABLE 1: U.S. Target Industry Statistics (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Industry Sectors	Office Administrative Services (NAICS 56111)
Employment	398,586
Establishments	42,326
Average Establishment Size	9.4
Average Annual Earnings	$70,251

STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS ANALYSIS

The decision to locate administrative and customer service centers has almost always been based on lowering costs and finding affordable, skilled labor. This trend will continue as companies continually strive to minimize their bottom line while improving service. However, in the not-too-distant past, this motivation often drove companies overseas to look for available lower-cost labor. With the economic downturn, companies are now more readily able to find an available, skilled workforce in the U.S. at lower wages. Combined with other issues such as the weak dollar, a desire to have Customer Service Representatives (CRMs) with minimal foreign dialects, and concerns about unsatisfactory service from off-shore operators, companies are choosing to expand their back office and administrative services domestically. For instance, over the past several years, companies such as Dell, Delta, and Citigroup have chosen domestic locations versus going overseas.

The following factors are the most frequently sought-after conditions by companies when selecting a location for new facilities:

- An available, quality labor force with existing clerical skills
- For operations where there is a large data-processing component, good availability of systems analysts, programmers, networking, and telecom specialists
- Access to strong post-secondary institutions including technical schools, colleges, and universities
- Competitively priced office space
- UPS and FedEx on-site pick-up service at least to 7:00 pm
- Reliable commercial air service with direct or connecting service to other major U.S. cities. Direct, non-stop service to corporate headquarters is important
- A quality labor force available at costs that are below the national average
- A well-developed telecommunications infrastructure. Typically, many operations will require multiple T-1 lines, dual-feed, self-healing fiber links, full digital, and fiber.
- Reliable electric power
- Reasonable property tax rates on real estate
- No tax on accounts receivables or sales taxes on computers, software, and office equipment
- An attractive quality of life, including housing and quality school and educational systems to accommodate transferred and relocated personnel, and for facilitated recruitment of management and technical talent.

Geographic Concentration by State

The leading locations for third-party office administrative services are presented in Table 2, where data is available, and Table 3 lists the five states with the largest number of residents employed in administrative occupations.

TABLE 2: Concentration of Office Administrative Services (NAICS 56111) by State, Employment, and Establishments (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
California	5,964	14.1%	66,442	16.7%
Texas	5,474	12.9%	56,555	14.2%
Florida	4,172	9.9%	31,386	7.9%
New York	1,970	4.7%	23,514	5.9%
Illinois	1,668	3.9%	15,550	3.9%

TABLE 3: Employment in Administrative and Office Support Occupations, 2009
Source: U.S. Bureau of Labor Statistics, 2009

State	Employment
California	2,546,810
Texas	1,787,920
New York	1,591,890
Florida	1,455,980
Pennsylvania	962,490
Illinois	927,270
Ohio	845,260
New Jersey	708,740
Georgia	701,390
Michigan	617,750

Geographic Concentration by Metro Area

Where data is available, we identify in Table 4 the ten MSAs with the greatest employee and employer concentrations in the third-party administrative services subsector, and in Table 5 we list the ten metropolitan areas with the greatest number of residents employed in administrative occupations. This data will be helpful in marketing for company recruiting by the City.

Significantly, Newark is located in the metropolitan area (i.e., Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA) with the fifth-largest number of residents employed in administrative occupations; and the nearby New York and Washington metro areas are within the top ten metro areas in both of the target's two subsectors. See Tables 4 and 5.

TABLE 4: Highest Concentration of Office Administrative Services (NAICS 56111) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
Los Angeles-Long Beach-Santa Ana, CA MSA	2,500	5.9%	28,520	7.2%
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	2,259	5.3%	23,725	6.0%
Dallas-Fort Worth-Arlington, TX MSA	1,660	3.9%	19,972	5.0%
Miami-Fort Lauderdale-Miami Beach, FL MSA	1,587	3.8%	8,814	2.2%
Houston-Baytown-Sugar Land, TX MSA	1,392	3.3%	16,349	4.1%
Chicago-Naperville-Joliet, IL-IN-WI MSA	1,130	2.7%	13,282	3.3%

TABLE CONTINUES NEXT PAGE

TABLE 4 (*continued*): Highest Concentration of Office Administrative Services (NAICS 56111) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	933	2.2%	11,934	3.0%
San Francisco-Oakland-Fremont, CA MSA	817	1.9%	7,396	1.9%
Atlanta-Sandy Springs-Marietta, GA MSA	730	1.7%	9,289	2.3%
Phoenix-Mesa-Scottsdale, AZ MSA	713	1.7%	8,755	2.2%

TABLE 5: Employment in Administrative and Office Support Occupations, 2009
Source: U.S. Bureau of Labor Statistics, 2009

MSA	Employment
New York-Northern New Jersey-Long Island NY-NJ-PA	1,570,950
Los Angeles-Long Beach-Santa Ana CA	1,031,050
Chicago-Naperville-Joliet IL-IN-WI	711,570
Dallas-Fort Worth-Arlington TX	541,960
Philadelphia-Camden-Wilmington PA-NJ-DE-MD	490,820
Miami-Fort Lauderdale-Miami Beach FL	454,540
Washington-Arlington-Alexandria DC-VA-MD-WV	443,750
Atlanta-Sandy Springs-Marietta GA	438,280
Houston-Sugar Land-Baytown TX	428,520
Boston-Cambridge-Quincy MA-NH	407,940

Trends and Competitive Landscape

Overall Target

Administrative and contact service centers are looking to modify how they conduct business. Research conducted by The Economist Intelligence Unit and Genesys, an Alcatel-Lucent company, shows that most companies are struggling with how to adapt their businesses to serve a new wave of consumers from the Millennial Generation. Research shows that there is an urgent need for businesses to adopt and implement new methods of customer communication such as blogs, podcasts, videos, chat rooms, social networking sites, and other online, interactive communication. These new methods have altered the way businesses and customers relate. In the past, customers tended to go directly to the company to inquire about a product, make a purchase, or raise a complaint; today they increasingly go online for these activities. On the web, they learn, shop, and share their experiences, both positive and negative. However, if companies respond to this new dynamic without retaining some of the older styles of communication, businesses may alienate the baby boomers, who may not be as comfortable with new technology as the younger generation.

Administrative Service Centers Subsector

Major corporations (typically companies with $1 billion in annual sales) in many industries continue to take steps to minimize their administrative costs. These steps include: a growing emphasis on reducing headcount through the elimination of redundant positions; process improvements to make existing office procedures more efficient; and technology improvements to increase productivity. In order to implement these strategies, companies are increasingly turning to relocation of single or multiple units that are the most cost-sensitive and the most mobile from higher-cost locations to lower-cost centers.

A trend has emerged over the past decade among the large companies that affects the location of their administrative service centers. This trend is the advent of consolidated staff-support activities (e.g., accounting, payroll, shareholder services) among a company's divisions, groups, or subsidiaries. These consolidated operations are usually called *shared services centers*. The trend toward establishing shared service-center operations will accelerate in the next several years as cost reduction, efficiency, and better service continue as key operating objectives.

Another trend is the consolidation of regional or district offices. This is most prevalent in the insurance industry for claims processing. Larger carriers have been consolidating numerous field operations into one or several major operations. Again, economies of scale/cost are the principal drivers. Companies find that relocation of single back-office units, or consolidation of multiple units into a single, stand-alone, administrative service center offering shared services in a lower-cost area allows them to:

- Reduce headcount by eliminating redundant positions
- Reduce direct labor costs
- Reduce fringe benefits costs
- Reduce occupancy costs
- Improve productivity through longer work weeks
- Improve productivity by implementing new office procedures and work methods
- Attract and retain high quality managers and technicians through lower living cost

With tightening labor markets nationwide, escalating salaries, rising turnover, and more costly office space, geographic redeployment of back offices will remain an important aspect of corporate re-engineering efforts.

Contact Center Subsector

The underlying trend in teleservice location strategy is to place centers in low-cost labor markets; however, the low-cost locations must also be able to support the primary operating objectives. The service center must be staffed with workers able to deliver the requisite service level to meet/exceed customer expectations, must maintain business continuity, and must be able to expand or contract in headcount and space to adjust for market conditions.

Available telecommunications and computer technology allow quick and easy transfer of large quantities of information across long distances. This allows many corporate support and service operations to be separated from corporate headquarters and manufacturing facilities, and to be located as stand-alone facilities in areas with lower operating costs within the U.S. and in foreign countries.

There is a growing trend in business for companies to become more responsive to their customers' needs for facilitated access and maximum convenience. It is becoming increasingly difficult to find any producer or service provider who does not have a toll-free number to take calls for product/service complaints, questions, sales, or product inquiries. Companies that do not have toll-free call center operations to answer these calls are at a disadvantage against their competitors, and are being driven to create them.

Despite rapid technological advances, inbound and outbound teleservice centers remain labor-intensive. The technology has greatly improved efficiency and responsiveness to customer inquiries. However, due to explosive growth, teleservice centers require a substantial number of agents or CSR's. Whether these are full or part time or a mixture of both depends on the company's operating philosophy and local labor market conditions.

There are numerous trends in the location of contact centers within and outside the U.S. Principal trends are outlined below:

- There has been a proliferation of contact centers spanning the industry spectrum (from manufacturing to retail trade).
- The advent of e-commerce has contributed to the explosion in this industry.
- The re-energizing U.S. economy will continue to fuel the need for new contact center facilities.
- Growth of new facilities will be especially strong as the paperless economy and Internet usage become widespread.
- Payroll dominates the expense structure for contact centers (generally over 65% of a facility's budget).

- A shortage of quality, entry-level labor is the biggest locational challenge facing the industry in the U.S. This applies both to basic customer-service positions (e.g., requiring little independent judgment) and for higher-end technical support (e.g., software help desk).
- Tight labor market conditions in the U.S. are causing wage escalation (and high turnover), thereby reducing operating margins for contact centers.
- Partially in response to the need for greater efficiencies, operating flexibility, and cost containment, contact centers have adopted a number of measures, including:
  - Introduction of labor-saving technology (e.g., CTI, voice recognition, and database systems allowing for more scripting)
  - Reliance on the Internet both to provide customer service at a far lower cost than voice and to reduce telephone expenses
  - Downscaling contact center size to open up the range of locations that can be considered for new facilities
- Companies are selecting small metropolitan or non-metropolitan areas in the U.S. that heretofore were considered "off the beaten path" for contact center operations. This is especially true for non-mission-critical operations, as many small towns lack either extensive telecommunications redundancy or high bandwidth.
- There has been an increase in human-resource and facility-design measures to make contact centers desirable places to work and to strengthen the ability to recruit/retain qualified labor.
- Web-enabled contact centers are also allowing for more work at home or telecommuting, which improves a company's ability to recruit/retain labor.

Research conducted by ContactBabel, contact center industry analysts, and reported in the "The US 2009 Contact Center Decision-Makers' Guide" shows that while there was a significant drop in employment with the U.S. contact center industry in 2009, the industry was expected to rebound in 2010 and years following.

The study reports that the contact center industry as a whole has been spared the worst of the recession's impacts. Many businesses felt that shortchanging customer service would have an immediate and negative effect on customer satisfaction and loyalty, with revenues decreasing accordingly. Although there was a decline in headcount, many businesses have generally focused their cost cutting on areas that are not immediately noticeable, such as training or the replacement of IT systems. Moving forward, experts predict a return to growth in headcount and IT investment.

The report cites the biggest decline in contact center employment over the last several years occurred in the manufacturing, finance, insurance, retail, and healthcare sectors. Meanwhile, most services and technology/media/telecoms (TMT) contact center respondents posted headcount increases.

Concerning U.S. contact-center site selection in the immediate future, several patterns should become established, including:

- More basic contact center operations opting for small-town locations
- Technical contact centers locating in areas with a high concentration of basic contact centers, thereby capitalizing on a trained, underemployed labor pool
- Any contact center requiring new-economy skills (e.g., web design) locating in recognized centers of the new economy – irrespective of costs (from San Francisco/San Jose to New York City)
- Canada is becoming a more popular location to serve North America, due to better labor availability and lower payroll costs, although the rising value of the Canadian dollar to the U.S. dollar has tempered this trend.
- An increasing number of companies will establish offshore contact centers to serve the U.S. from low-cost locations featuring an English-speaking workforce (or possible bilingual English/Spanish for selected contact centers).

Growth Trends by Metro Area

Table 6 shows the metro areas that experienced the highest actual change in the number of establishments and employment between 2004 and 2009 within the third-party office administrative services sector.

TABLE 6: Where's the Growth?—Highest Actual Change in Establishments for Office Administrative Services (NAICS 56111) by MSA (2004-2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Change in Number of Establishments (2004-2009)	% Change in Number of Establishments (2004-2009)	Change in Number of Employees (2004-2009)	% Change in Number of Employees (2004-2009)
Dallas-Fort Worth-Arlington, TX MSA	489	41.8%	7,568	61.0%
Houston-Baytown-Sugar Land, TX MSA	466	50.3%	5,540	51.3%
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	370	19.6%	N/A	N/A
Los Angeles-Long Beach-Santa Ana, CA MSA	293	13.3%	4,690	19.7%
Chicago-Naperville-Joliet, IL-IN-WI MSA	223	24.6%	1,677	14.5%
Phoenix-Mesa-Scottsdale, AZ MSA	189	36.1%	2,634	43.0%
Kansas City, MO-KS MSA	141	49.3%	746	14.9%
Miami-Fort Lauderdale-Miami Beach, FL MSA	132	9.1%	-243	-2.7%
Austin-Round Rock, TX MSA	126	42.4%	1,713	62.7%
San Francisco-Oakland-Fremont, CA MSA	117	16.7%	2,488	50.7%

PHYSICAL INFRASTRUCTURE REQUIREMENTS

The sizes of establishments in this target sector cover a significantly broad range, from fewer than five to more than 1,000 employees. This translates into an office-space requirement of less than 1,000 square feet to over 120,000 square feet. Given that Newark's labor force is large enough to accommodate an office operation with over 1,400 employees, the City would need available office space within the middle to upper-end of this range, or have the potential to supply that space, if its full potential is to be realized. For the larger operations, a floor plate of 20,000-25,000 square feet is frequently desired, although some operations prefer larger floor plates. Contact centers can be located in converted single-story retail space.

Companies prefer to lease space for their back office operations. The quality of space required will vary from class B (or Class C in some cases) for some operations such as contact centers, to Class A for high-visibility operations of Fortune 500 firms.

Uninterruptable electric service and strong, reliable, state-of-the art voice and data telecommunications capabilities are required. Very high speed and capacity and uninterruptable broadband service are needed, preferably with service capabilities from more than one provider. Dual-feed electric service is a frequently desired requirement.

Other utilities—public water and sewer services and natural gas—will be standard to any typical office operations, and are already available in the City.

LABOR MARKET REQUIREMENTS

Representative Occupations and Educational Attainment

TABLE 11: Employment of Wage and Salary Workers in the Back Office and Administrative Services Cluster by Selected Occupations 2008 and Projected Change, 2008-2018 *

Source: Bureau of Labor Statistics, U.S. Department of Labor

Occupation	Employees, 2008 (in 1,000s)	Estimated % Change** 2008 - 2018	Minimum Educational Requirements
Administrative services managers	259.4	12.0%	Bachelor's Degree
Human resources managers	133.9	10.0%	Bachelor's Degree
Compensation and benefits managers	40.5	9.0%	Bachelor's Degree
Training and development managers	30.4	12.0%	Bachelor's Degree
Computer and information systems managers	293.0	17.0%	----
Customer service representatives	2,252.4	18.0%	Moderate-on-the-job training
Office clerks, general	3,024.4	12.0%	Short-on-the-job training
Secretaries and administrative assistants	4,348.1	11.0%	Some college, no degree
Brokerage clerks	N/A	N/A	Bachelor's Degree
Computer operators	110.0	-19.0%	HS Diploma or equivalent
Credit authorizers, checkers and clerks	63.8	3.0%	----
Data entry and information processing workers	426.2	-6.0%	HS Diploma or equivalent
Human resources assistants (except payroll)	169.7	-6.0%	Associate's degree

* *Representative list of occupations*

** *Change in occupations based on national estimates*

Wages and Salaries

TABLE 12: Median Hourly and Annual Wages by Selected Occupations 2009

*Source: U.S. Department of Labor O*Net and U.S. Bureau of Labor Statistics*

Occupation	Median Hourly Wage	Annual Median Wage
Administrative services managers	$36.31	$75,520
Human resources managers	$42.95	$89,330
Compensation and benefits managers	$42.33	$88,050
Training and development managers	$25.06	$52,120
Computer and information systems managers	$54.67	$113,720
Customer service representatives	$14.56	$30,290
Office clerks, general	$12.57	$26,140
Secretaries and administrative assistants	$23.03	$41,650
Brokerage clerks	$19.32	$40,180
Computer operators	$17.36	$36,110
Credit authorizers, checkers and clerks	$15.36	$31,950
Data entry and information processing workers	$13.05	$27,150
Human resources assistants (except payroll)	$17.62	$36,650

EXISTING GREATER NEWARK COMPANIES

All of the companies in the City of Newark within the third party administrative services sector are small. Companies located in the City with business primarily within the targeted industry are listed below:

Company Name	Primary NAICS	Primary NAICS Description	Employees	Location Type
Black & Decker Accounting Ofc	561110	Office Administrative Services	8	Branch
BPG Management Svc Inc	561110	Office Administrative Services	3	Single Location
Christiana Mall Management Ofc	561110	Office Administrative Services	3	Single Location
Medical Society Of Delaware	561110	Office Administrative Services	3	Single Location
Metropolitan Management Group	561110	Office Administrative Services	3	Single Location
Moodys Turf Management	561110	Office Administrative Services	2	Single Location

TABLE CONTINUES NEXT PAGE

Company Name	Primary NAICS	Primary NAICS Description	Employees	Location Type
Panco Management Corp	561110	Office Administrative Services	2	Single Location
Partners Management	561110	Office Administrative Services	3	Single Location
Pyramid Group Mgmt Svc Corp	561110	Office Administrative Services	3	Single Location
STB Management	561110	Office Administrative Services	2	Single Location
Stoltz Management	561110	Office Administrative Services	3	Single Location

In addition to these administrative centers, the University of Delaware, the City of Newark, and the Christiana Health Care System—with one of its two principal facilities located just outside of the City limits—have administrative service functions.

Meanwhile, Sallie Mae plans to open a new Credit Operations Center just beyond the city limits in New Castle County by the end of 2010. Sallie Mae expects to hire approximately 750 employees by the end of the year and an additional 350 employees in 2011.

RATIONALE FOR SELECTION

Newark offers many advantages for this industry, as indicated in the following:

- The City offers a competitive edge for the target. It provides lower-cost options for companies in the New York and Washington DC metropolitan areas, including real estate and labor. There are no sales taxes levied in the state, nor is there any property tax levied on office equipment, computer hardware, software, or telecommunications equipment.
- This industry is a user of small office space, which is currently available in the City, and of mid-sized office space, which can be made available through development or redevelopment of existing real estate in the City or on adjacent land that could be annexed.
- There is access to an existing resident talent base within the City's labor shed with skills needed by this target. Within the City's 30-minute labor shed, there are up to 73,000 residents with administrative office skills.
- The County has a large, experienced workforce base with 55,000 office and administrative support jobs in New Castle County, according to state data.
- The City's proximity to Wilmington and suburban Philadelphia means that the City's labor shed includes a large base of financial and computer skills that are needed by many back offices, particularly those within the financial sector. Within the City's 30-minute commute zone, there are almost 12,000 residents employed as financial specialists, and almost 13,000 employed in computer and mathematical occupations.
- The Newark labor market is richer in the talent needed by advanced back offices than locations that are working to attract back-office operations from New York City, northern New Jersey, and metropolitan Philadelphia, such as northeastern Pennsylvania.
- The City's location offers advantageous access to the business centers in the New-York-to-Washington-D.C. corridor via Amtrak and I-95, giving companies in the corridor the opportunity for day trips between their main offices and an administrative office in Newark. Examples include:

Driving Distances and Times from Newark, DE
Source: MapQuest

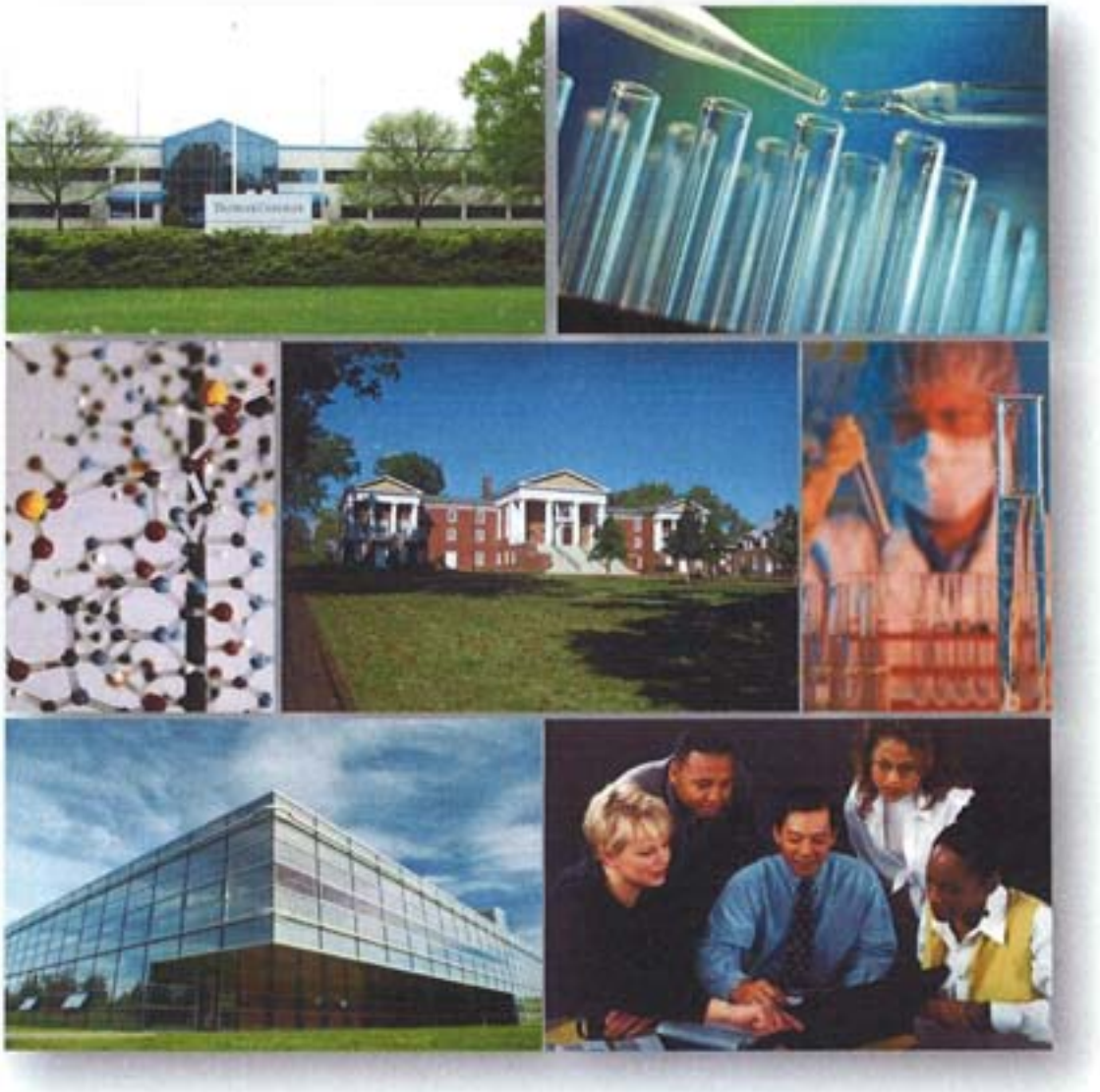
Destination	Driving Time
Wilmington, DE	25 minutes
Philadelphia, PA	1 hour 1 minute
Baltimore, MD	1 hour 10 minutes
Bethesda, MD	1 hours 50 minutes
New Brunswick, NJ	1 hour 55 minutes
Washington, DC	1 hour 59 minutes
Reston, VA	2 hours 11 minutes
New York City	2 hours 28 minutes

- The University of Delaware graduates 4,700 students a year in multiple disciplines, including accounting (101), finance (235), management information systems (23), computer & information systems (47), hotel/motel administration and management (100), plus thousands of students in liberal-arts-related fields. In addition, the nearby greater Philadelphia area offers employers access to numerous universities and colleges that graduate thousands of students annually.
- Scheduled commercial air service through Philadelphia International Airport (44-minute drive) and Baltimore-Washington International Airport (1 hour and 20 minutes' drive).
- The City offers the highest level of telecom and broadband service, due in part to demands of the University of Delaware and the financial services industry in Wilmington.
- The City offers a very attractive quality of life that includes access to the urban amenities of a major metropolitan area, the intellectual life of a university town, excellent local restaurants, and many recreational opportunities, including access to the Delaware beaches and Chesapeake Bay less than one hour away.
- This target offers business and economic diversification opportunities for the City.

CITY OF NEWARK, DELAWARE

TARGET INDUSTRY ANALYSIS:
Information Technology–
Computer Systems Design and Related Services

October 2010



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CONTENTS

INTRODUCTION

This target-industry-identification report is the product of a contract between the Wadley-Donovan Group (WDG), with Garnet Consulting Services, Inc., serving as a subcontractor, and the City of Newark, Delaware. This report is being submitted in conjunction with three other target reports: Research and Development Centers; Professional, Scientific and Technical Services; and Administrative and Customer Services; a Strengths, Weaknesses, Opportunities and Threats (SWOT) assessment of the City; and an Economic Development Master Plan.

The findings presented herein are those of the WDG Team only. We have examined the City from a corporate location perspective and from our knowledge of corporate locational trends, decision-making factors, and economic-development best practices and activities.

Sources for the information found in the report include the U.S. Bureau of Labor Statistics, ReferenceUSA, Datamonitor, and others.

DEFINITION

For purposes of this target industry analysis, the Information Technology cluster consists of three sub-sectors: *Custom Computer Programming Services* (NAICS 541511), *Computer Systems Design Services* (NAICS 541512), and *Computer Facilities Management Services* (NAICS 541513).

1. Custom Computer Programming Services (NAICS 541511)

Definition: This target is comprised of establishments primarily engaged in writing, modifying, testing, and supporting software to meet the needs of a particular customer.

Examples of functions within the NAICS Code include:

- Applications software programming services, custom computer
- Computer program or software development, custom
- Computer programming services, custom
- Computer software analysis and design services, custom
- Computer software programming services, custom
- Computer software support services, custom
- Programming services, custom computer
- Software analysis and design services, custom computer
- Software programming services, customer computer
- Web (i.e., internet) page design services, custom

2. Computer Systems Design Services (NAICS 541512)

Definition: This target consists of establishments primarily engaged in planning and designing computer systems that integrate computer hardware, software, and communication technologies. The hardware and software components of the system may be provided by this establishment or company as part of integrated services or may be provided by third parties or vendors. These establishments often install the system and train and support users of the system.

Examples of functions within the NAICS code include:

- CAD (computer-aided design) systems integration design services
- CAE (computer-aided engineering) systems integration design services
- CAM (computer-aided manufacturing) systems integration design services
- Computer software consulting services or consultants
- Computer systems integration analysis and design services
- Computer systems integration design consulting services

- Computer systems integrator services
- Computer-aided design (CAD) systems integration design services
- Computer-aided engineering (CAE) systems integration design services
- Computer-aided manufacturing (CAM) systems integration design services
- Information management computer systems integration design services
- Local area network (LAN) computer systems integration design services
- Network systems integration design services, computer
- Office automation computer systems integration design services
- Systems integration design consulting services, computer
- Systems integration design services, computer

3. Computer Facilities Management Services (NAICS 541513)

Definition: This target consists of establishments primarily engaged in providing on-site management and operation of clients' computer systems and/or data processing facilities. Establishments providing computer systems or data processing facilities support services are included in this industry.

Establishments primarily engaged in providing computer data processing services at their own facility for others are not included within this target. They are classified in Industry 518210, Data Processing, Hosting, and Related Services.

Examples of functions within the NAICS code include:

- Computer systems facilities (i.e., clients' facilities) management and operation
- Data processing facilities (i.e., clients' facilities) management and operation
- Facilities (i.e., clients' facilities) management and operation services, computer
- Facilities (i.e., clients' facilities) support services, computer systems or data

BUSINESS PROFILE OF THE INFORMATION TECHNOLOGY CLUSTER

Companies within this target industry cluster develop and design computer and information systems and custom software programs, and provide computer facilities and network systems management services. They also perform various other functions, such as software installation. Often, establishments in this industry will work on a consulting or contract basis. They may assist an organization with a particular project or problem, such as setting up a secure Web site, assisting with a company's e-commerce activities; or may assist in a variety of ongoing functions, such as handling technically focused customer service or help-desk functions, or management of an onsite data center.

While the industry is characterized by a blend of small, medium, and large establishments, the average establishment is relatively small, with fewer than 20 employees. The majority of jobs, however, are found in establishments that employ 50 or more workers.

Relative to other industry sectors, there are significantly fewer workers 45 years of age and older employed in this target. This sector's workforce remains younger than most, with a large proportion of workers in the 25-to-44-year age range.

Average annual salaries are high, ranging from $73,316 in the computer facilities management services sector to $92,109 in the custom computer programming services sector.

Table 1 shows the target industry statistics by sector for the nation.

TABLE 1: U.S. Target Industry Statistics (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Industry Sectors	Employment	Establishments	Average Establishment Size	Average Annual Earnings
Custom Computer Programming Services (NAICS 541511)	613,691	80,867	7.6	$92,109
Computer Systems Design Services (NAICS 541512)	641,504	87,909	7.3	$88,842
Computer Facilities Management Services (NAICS 541513)	54,428	2,655	20.5	$73,316

STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS ANALYSIS

Trends and Competitive Landscape

The computer systems design and related services industry grew dramatically throughout the 1990s, as employment more than doubled. While growth has been decidedly slower since 2000, this sector is still projected to be one of the 10 fastest growing in the nation in the coming years.

According to Tier1 Research, and reported in a February, 2010 *New York Times* article, worldwide demand for data centers, the principal client of the target's Computer Facilities Management Services subsector, was expected to rise 12% in 2010, followed by 14% in 2011, and 17% in 2012. The article also reports that new technology has allowed more small and mid-sized businesses to outsource data services, further driving demand for data centers and server farms. Putting the risk of safe data storage off-site is an attractive option for companies for disaster recovery factors and possible cost savings. New business models are constantly emerging and that is likely to mean more demand for data center development and expansion.

Wage-and-salary employment in this target is expected to grow 45% from 2008 to 2018, about four times as fast as the 11% average growth projected for all industry sectors combined. In addition, this industry will add about 656,400 jobs during this time period, placing it among the five industries with the largest numeric job growth. This growth can be attributed to three principal trends:

1. **Demand for New Technologies and Internet Market Growth** – The demand for networking and the need to integrate new hardware, software, and communications technologies will drive demand for industry-based consulting services. The need for individuals to integrate these systems will expand. The expansion of the Internet and the proliferation of wireless technologies have created demand for a wide variety of new products and services. For example, the expansion of the wireless Internet has brought a new aspect of mobility to information technology by allowing people to stay connected to the Internet virtually anywhere and at anytime. As businesses and individuals become more dependent on this technology, there will be an increased need for professionals that can design and integrate computer systems, so that they will be compatible with emerging wireless technologies. On-line retailing, social media, and Internet publishing are some of the generators of growth.

   Further down the road, *cloud computing* is an emerging technology that will have a significant impact on the industry. Cloud computing is still in its infancy, but it is growing in interest and popularity. This technology uses the Internet and central remote servers to maintain data and applications. It allows consumers and businesses to use applications without installation, and access to their personal files at any computer with Internet connectivity. As a result, it provides much more efficient computing by centralizing storage, memory, processing, and bandwidth. In general, cloud-computing customers do not own the physical infrastructure, because they are renting usage from a third-party provider, thereby avoiding capital expenditures. Users consume resources as a service and pay only for the resources used.

   This target will see growth with the shift toward cloud computing and through the demand from consulting firms to help implement this technology (e.g., Cloud Technology Partners and SAVVIS).

2. **Government Regulations** – New government regulations have drastically changed how companies do business and manage corporate records. In light of the Enron experience, government regulations

regarding corporate information have been significantly strengthened, and certain legislation, such as Sarbanes/Oxley, has required additional data storage for corporate activities.

Government regulations regarding healthcare services have also expanded. The adoption of e-prescribing, electronic health records, and other IT platform tools will spur demand for computer systems design services, while HIPAA (Health Insurance Portability and Accountability Act) requires the digitization of healthcare records and increased technical and physical security to prevent the disclosure of medical related data. These activities and requirements mandate large data storage centers that must be continuously accessible. Hospitals, such as Christiana Health Care System, are among the most affected.

3. **Disaster Prevention and Recovery** – Following 9/11 and Hurricane Katrina, companies and governmental agencies have realized the need for offsite, disaster-resistant data centers. New Tier IV centers (which provide nearly uninterruptable access to data and computing services) are being built across the country to house these secure sites. Growth should also result from the increasing need to maintain network and computer-system security in all industries, but particularly in the finance, utility, and defense-related sectors. Security specialists will be employed more often to assess a system's vulnerability and to implement security measures. In addition, analysts and developers will be needed to develop new antivirus software, programs, and procedures. Therefore, the likelihood of expansion of the computer facilities management services target in employment and establishments is high. This target employs systems analysts, software engineers, and network administrators, and consultants in areas such as disaster-recovery services, custom security programming, and computer security systems.

   Because of a slowed economy and reduced access to capital, data-center development cooled over the past 18 months or so compared to the start of the recent recession. However, indicators are that investment will return, and the larger firms, such as Microsoft, Google, and some of the telecom firms will again be major players.

Geographic Concentration by State

The leading states for the Computer Systems Design and Related Services sub-sectors are presented in Tables 2 through 4, where data is available.

TABLE 2: Concentration of Custom Computer Programming Services (NAICS 541511) by State, Employment, and Establishments (2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
California	10,388	12.8%	110,804	18.1%
Texas	5,512	6.8%	43,050	7.0%
Florida	5,143	6.4%	28,948	4.7%
New York	4,917	6.1%	37,465	6.1%
Illinois	4,322	5.3%	24,038	3.9%

TABLE 3: Concentration of Computer Systems Design Services (NAICS 541512) by State, Employment, and Establishments (2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
California	7,565	8.6%	70,047	10.9%
Virginia	6,631	7.5%	87,732	13.7%
Texas	6,318	7.2%	47,245	7.4%
New York	5,438	6.2%	32,667	5.1%
Florida	4,955	5.6%	23,277	3.6%

TABLE 4: Concentration of Computer Facilities Management Services (NAICS 541513) by State, Employment, and Establishments (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
New York	259	9.8%	3,405	6.3%
Georgia	198	7.5%	5,525	10.2%
California	187	7.0%	2,361	4.3%
Texas	177	6.7%	3,077	5.7%
Maryland	150	5.6%	1,130	2.1%

Geographic Concentration by Metro Area

Where data is available, the MSAs with the greatest employee and employer concentrations are listed in Tables 5-7. Such data will be helpful in marketing for company and workforce recruiting.

Importantly, Newark is within in the top ten metro areas (i.e., Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA) for each of the three target subsectors. The New York and Washington, DC metro areas are among the top ten employment locations for all of the subsectors, putting target employers in the City in an advantageous location for recruiting talent from these two higher-cost locations. Baltimore, meanwhile, is a geo-cluster for the computer facilities management services subsector.

TABLE 5: Highest Concentration of Customer Computer Programming Services (NAICS 541511) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	5,471
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	3,445
Los Angeles-Long Beach-Santa Ana, CA MSA	2,865
Chicago-Naperville-Joliet, IL-IN-WI MSA	2,607
San Francisco-Oakland-Fremont, CA MSA	2,142
Atlanta-Sandy Springs-Marietta, GA MSA	1,893
Boston-Cambridge-Quincy, MA-NH MSA	1,869
Dallas-Fort Worth-Arlington, TX MSA	1,758
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	1,674
San Jose-Sunnyvale-Santa Clara, CA MSA	1,554

TABLE 6: Highest Concentration of Computer Systems Design Services (NAICS 541512) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	6,921	7.9%	N/A	N/A
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	5,938	6.8%	41,849	6.5%
Chicago-Naperville-Joliet, IL-IN-WI MSA	3,071	3.5%	19,896	3.1%
Atlanta-Sandy Springs-Marietta, GA MSA	2,710	3.1%	14,137	2.2%
Los Angeles-Long Beach-Santa Ana, CA MSA	2,285	2.6%	15,039	2.3%
Dallas-Fort Worth-Arlington, TX MSA	2,173	2.5%	18,921	2.9%
Denver-Aurora, CO MSA	2,143	2.4%	11,654	1.8%
Boston-Cambridge-Quincy, MA-NH MSA	1,717	2.0%	21,839	3.4%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	1,699	1.9%	N/A	N/A
Miami-Fort Lauderdale-Miami Beach, FL MSA	1,478	1.7%	5,137	0.8%

TABLE 7: Highest Concentration of Computer Facilities Management Services (NAICS 541513) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
New York-Northern New Jersey-Long Island,NY-NJ-PA MSA	195	7.3%	N/A	N/A
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	154	5.8%	N/A	N/A
Atlanta-Sandy Springs-Marietta, GA MSA	74	2.8%	2,044	3.8%
Los Angeles-Long Beach-Santa Ana, CA MSA	65	2.4%	1,059	1.9%
Baltimore-Towson, MD MSA	62	2.3%	361	0.7%
Dallas-Fort Worth-Arlington, TX MSA	58	2.2%	2,197	4.0%
Chicago-Naperville-Joliet, IL-IN-WI MSA	56	2.1%	N/A	N/A
Seattle-Tacoma-Bellevue, WA MSA	41	1.5%	N/A	N/A
Denver-Aurora, CO MSA	40	1.5%	308	0.6%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	37	1.4%	N/A	N/A

Growth Trends by Metro Area

Tables 8 through 10 show the metro areas that experienced the highest numeric change in establishments and change in employment between 2004 and 2009. Nearby target geo-clusters in the New York, Baltimore and Washington DC metro areas showed among the highest target growth in the country, offering Newark the potential to gain, through proximity, from this trend. The metro area in which Newark is located (Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA) was among the top ten growth areas, in terms of establishments, within the Computer Systems Design Services subsector.

TABLE 8: Where's the Growth?—Highest Actual Change in Establishments for Custom Computer Programming Services (NAICS 541511) by MSA (2004-2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Change in Number of Establishments (2004-2009)	% Change in Number of Establishments (2004-2009)	Change in Number of Employees (2004-2009)	% Change in Number of Employees (2004-2009)
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	759	28.3%	47,637	-1.9%
Denver-Aurora, CO MSA	454	49.6%	8,181	9.1%
Dallas-Fort Worth-Arlington, TX MSA	386	28.1%	11,945	41.7%
Phoenix-Mesa-Scottsdale, AZ MSA	366	53.8%	N/A	N/A
Austin-Round Rock, TX MSA	365	72.4%	N/A	N/A
Seattle-Tacoma-Bellevue, WA MSA	297	43.5%	6,588	43.8%
Houston-Baytown-Sugar Land, TX MSA	254	29.5%	8,762	17.8%
Salt Lake City, UT MSA	247	56.0%	3,429	54.0%
Las Vegas-Paradise, NV MSA	243	77.6%	1,044	46.5%
Chicago-Naperville-Joliet, IL-IN-WI MSA	239	10.1%	N/A	N/A

TABLE 9: Where's the Growth?—Highest Percent Change in Establishments for Computer Systems Design Services (NAICS 541512) by MSA (2004-2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Change in Number of Establishments (2004-2009)	% Change in Number of Establishments (2004-2009)	Change in Number of Employees (2004-2009)	% Change in Number of Employees (2004-2009)
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	2,421	53.8%	N/A	N/A
Atlanta-Sandy Springs-Marietta, GA MSA	1,021	60.4%	4,014	39.7%
Chicago-Naperville-Joliet, IL-IN-WI MSA	868	39.4%	2,230	12.6%
Seattle-Tacoma-Bellevue, WA MSA	763	120.9%	5,155	126.8%
Denver-Aurora, CO MSA	562	35.5%	2,503	27.4%
Dallas-Fort Worth-Arlington, TX MSA	431	24.7%	6,857	56.8%

TABLE CONTINUES NEXT PAGE

TABLE 9 (*continued*): Where's the Growth?—Highest Percent Change in Establishments for Computer Systems Design Services (NAICS 541512) by MSA (2004-2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Change in Number of Establishments (2004-2009)	% Change in Number of Establishments (2004-2009)	Change in Number of Employees (2004-2009)	% Change in Number of Employees (2004-2009)
New York-Northern New Jersey-Long Island,NY-NJ-PA MSA	352	6.3%	N/A	N/A
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	352	26.1%	N/A	N/A
Los Angeles-Long Beach-Santa Ana, CA MSA	334	17.1%	1,110	8.0%
Las Vegas-Paradise, NV MSA	326	316.5%	692	132.6%

TABLE 10: Where's the Growth?—Highest Percent Change in Establishments for Computer Facilities Management Services (NAICS 541513) by MSA (2004-2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Change in Number of Establishments (2004-2009)	% Change in Number of Establishments (2004-2009)	Change in Number of Employees (2004-2009)	% Change in Number of Employees (2004-2009)
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	51	49.5%	N/A	N/A
Baltimore-Towson, MD MSA	37	148.0%	N/A	N/A
Phoenix-Mesa-Scottsdale, AZ MSA	25	277.8%	6	0.9%
Dallas-Fort Worth-Arlington, TX MSA	17	41.5%	-211	-8.8%
Los Angeles-Long Beach-Santa Ana, CA MSA	16	32.7%	-255	-19.4%
New Orleans-Metairie-Kenner, LA MSA	16	320.0%	N/A	N/A
Minneapolis-St. Paul-Bloomington, MN-WI MSA	15	88.2%	N/A	N/A
Portland-Vancouver-Beaverton, OR-WA MSA	14	63.6%	N/A	N/A
Seattle-Tacoma-Bellevue, WA MSA	13	46.4%	N/A	N/A
Indianapolis, IN MSA	12	133.3%	-151	-43.1%

Representative Companies

Table 11 provides a representative sample of companies with functions in the professional, scientific and technical services industry cluster.

TABLE 11: Representative Companies – Information Technology Operations

Company	Headquarters
Acxiom Corp	Little Rock, AR
Insight Enterprises Inc	Tempe, AZ
Apple Inc.	Cupertino, CA
Cisco Systems	San Jose, CA
Oracle Corp.	Redwood City, CA
K Force Inc	Tampa, FL
EMC Corp	Hopkinton, MA
Novell Inc	Waltham, MA
Cerner Corp	Kansas City, MO
ACI Worldwide Inc	New York, NY
SAIC Inc	Mc Lean, VA

Existing Greater Newark Companies

Almost all of the companies in the City of Newark within this industry are small. Greater Newark Companies with five or more employees in the targeted industry are listed below:

Company Name	Primary NAICS	Primary NAICS Description	Employees	Location Type
Computer Sciences Corp	541511	Custom Computer Programming Services	700	Branch
Hallmark Global Tech Inc	541511	Custom Computer Programming Services	55	Single Location
AMSOL Inc.	541511	Custom Computer Programming Services	50	Single Location
Quantum Leap Innovations	541511	Custom Computer Programming Services	40	Single Location
Blair Computing Systems	541511	Custom Computer Programming Services	18	Single Location
Proactive Performance Solution	541511	Custom Computer Programming Services	18	Single Location
Web-Intellectuals Inc.	541511	Custom Computer Programming Services	11	Single Location
Infoquest Systems Inc.	541511	Custom Computer Programming Services	10	Single Location
Sigma Data Systems Inc.	541511	Custom Computer Programming Services	8	Single Location
Cadtech Inc.	541511	Custom Computer Programming Services	8	Single Location
Computer Sciences Corp.	541511	Custom Computer Programming Services	5	Branch
I K Solutions Inc.	541511	Custom Computer Programming Services	5	Single Location
Agora Net	541512	Computer Systems Design Services	11	Single Location

PHYSICAL INFRASTRUCTURE REQUIREMENTS

The majority of businesses in this target sector will be a mix of small and medium-sized establishments (5 to 50 or more workers) requiring blocks of space in the 1,000-to-12,000-square-foot range. Very high broadband service within the building is needed.

Because interaction with customers and clients is largely electronic in nature, the majority of businesses in this sector do not need to be in buildings with high visibility. Class C buildings are suitable for start-up firms, but Class B buildings would satisfy most other space needs. Larger companies may require Class A buildings

Many companies within this industry will be part of a national and international network of collaborating businesses. This reliance on telecommunications and computer equipment underscores the critical importance of uninterruptable electric capability and strong and reliable voice and data telecommunications capabilities.

State-of-the art telecommunications—both voice and data—will be necessary for this industry. Very high speed and capacity, and uninterruptable broadband service are needed, with service capabilities from more than one provider. Other utilities—public water and sewer services and natural gas—will be standard to any typical office operations, and are already available in Newark.

Because many of the workers in this sector are younger (25 to 44 years) than the national average, work locations providing convenient access to the amenities sought by these younger workers, such as a live/work/play environment, will support recruitment of workers to these business operations. In turn, a pool of these workers living in Newark and elsewhere within the City's labor shed will support recruitment of the businesses.

LABOR MARKET CHARACTERISTICS

According to the U.S. Bureau of Labor Statistics, most occupations within this target should continue to grow rapidly over the next ten years. The most rapid growth will occur among those occupations related to network systems and data communications analysts. Other rapidly growing occupations include computer software engineers, database administrators, and network and computer system administrators. Occupations within business and financial operations will also see rapid growth, as information technology has become a vital aspect of business.

Occupations in the information technology industry require varying levels of education, but because of the high proportion of workers in professional occupations, the education level of workers in this industry is higher

than most other business sectors. Many—if not most—entry-level jobs will require at least a bachelor's degree.

Representative Occupations and Educational Attainment

Representative occupations required by the Computer Systems Design and Related Services target are listed in Table 12, along with the educational requirements of each occupation.

TABLE 12: Employment of Wage and Salary Workers in the Information Technology Cluster by Selected Occupations 2008 and Projected Change, 2008-2018 *

Source: Bureau of Labor Statistics, U.S. Department of Labor, Career Guide to Industries, 2010-11 Edition

Occupation	Employees, 2008 (in 000s)	Estimated % Change** 2008 - 2018	Minimum Educational Requirements
All Occupations	1,450.3	45.3%	
Management, business, and financial occupations	248.4	43.7%	
Marketing and sales managers	16.6	47.4%	Bachelor's degree
Computer and information systems managers	47.9	44.9%	Bachelor's degree
Management analysts	33.9	40.2%	Bachelor's degree
Accountants and auditors	18.5	65.5%	Bachelor's degree
Professional and related occupations	898.2	48.1%	
Computer software engineers, applications	175.2	57.3%	Bachelor's degree
Computer software engineers, systems software	113.7	57.4%	Bachelor's/Master's degree
Computer support specialists	99.8	57.4%	Some college
Computer systems analysts	126.3	40.2%	Associate's degree
Database administrators	18.8	57.3%	Bachelor's degree
Network and computer systems administrators	50.5	71.7%	Bachelor's degree
Network systems and data communications analysts	41.3	95.6%	Some college
Engineers	36.5	43.3%	Bachelor's degree
Sales and related occupations	94.1	39.5%	
Sales representatives, services	32.2	40.3%	Some college
Sales representatives, wholesale and manufacturing	37.2	39.5%	Associate's degree
Office and administrative support occupations	174.4	37.5%	
Customer service representatives	34.7	43.0%	H.S. Diploma or equivalent
Secretaries and administrative assistants	37.8	36.8%	H.S. Diploma or equivalent
Office clerks, general	27.7	40.3%	H.S. Diploma or equivalent

** Representative list of occupations* *** Change in occupations based on national estimates*

Wages and Salaries

Workers in the information technology industry generally command higher salaries than those of other industry groups. In 2009, the national average annual earnings for the three industry subsectors described in this study ranged from $73,316 to $92,109, significantly higher than the overall average annual earnings for all business sectors. Salaries for 2009 in selected occupations in the management scientific and technical consulting (NAICS 5416) subsector are listed in Table 13. Data for Engineering Services is not available.

TABLE 13: Median Annual Salaries by Selected Occupations 2009

Source: U.S. Department of Labor O*Net and U.S. Bureau of Labor Statistics

Occupation	Annual Median Salary
All Occupations	
Management, business, and financial occupations	
Marketing and sales managers	$113,720
Computer and information systems managers	$110,030
Management analysts	$75,250
Accountants and auditors	$60,340
Professional and related occupations	
Computer software engineers, applications	$87,480

Occupation	Annual Median Salary
Computer software engineers, systems software	$93,470
Computer support specialists	$44,300
Computer systems analysts	$77,080
Database administrators	$71,550
Network and computer systems administrators	$67,710
Network systems and data communications analysts	$73,250
Engineers	$89,560
Sales and related occupations	
Sales representatives, services	$49,410
Sales representatives, wholesale and manufacturing	$71,340
Office and administrative support occupations	
Customer service representatives	$30,290
Secretaries and administrative assistants	$41,650
Office clerks, general	$26,140

RATIONALE FOR SELECTION

Newark offers many advantages for this industry, as indicated in the following:

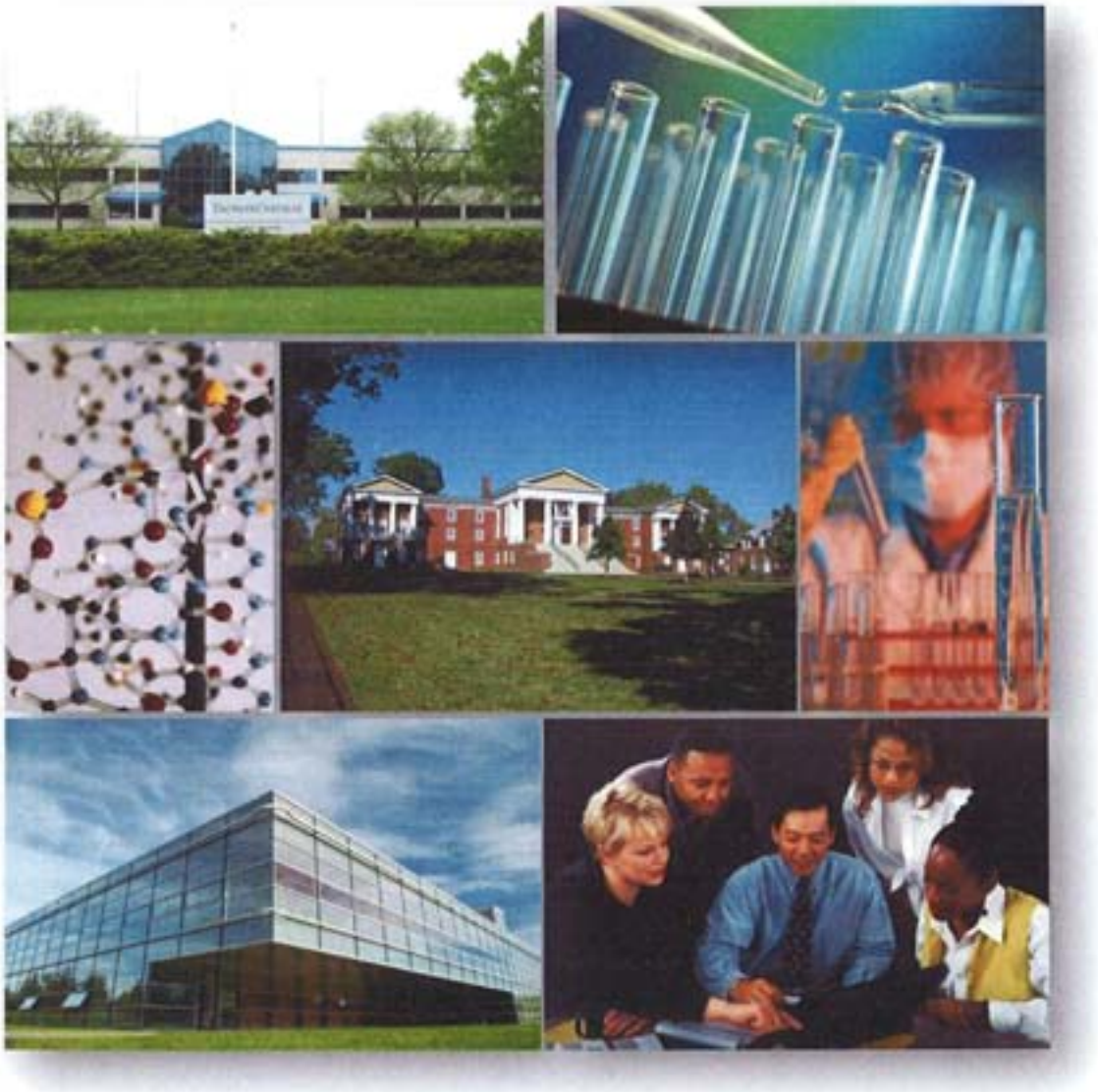
- New Castle County is an established center for this target, with a foundation set to support expansion. New Castle County has an existing computer systems design and related services base of 844 establishments with 2,898 employees, offering opportunities for attraction of additional establishments.
- There is access to an existing resident talent base within the City's labor shed with skills needed by this target. There are almost 12,900 residents in the Newark labor shed with computer and mathematical skills, and there are 10,200 residents employed in New Castle County in these occupations, according to state data.
- The University of Delaware's College of Engineering degree programs in electrical and computer and computer and information systems, coupled with the University's strong outreach program to industry and professor availability, would serve as powerful attractors for this industry. Among the assets offered by the University are recruiting opportunities of graduates, and student internship and co-op programs. The University's planned MS in Software Engineering will be an added asset once it is implemented. Meanwhile, regional universities and colleges within relatively close proximity to Newark, such as the University of Maryland, Drexel University, Lehigh University, and Rutgers University, graduate students with IT skills that could be recruited by Newark-based firms.
- Employers can develop special relationships with faculty members to allow identification of the best students for participation in these activities and for recruiting.
- The University of Delaware's development of its Research and Technology Campus will be an attraction to this sector, as will be development of any other business and technology park in, or proximate to Newark.
- Linkage opportunities exist for Newark area companies with the University's Research Centers: Catalysis Center for Energy Innovation (CCEI), Center for Applied Coastal Research, Center for Bioinformatics & Computational Biology (CBCB), Center for Biomedical Engineering Research (CBER), Center for Catalytic Science and Technology (CCST), Center for Composite Materials (CCM), Center for Energy and Environmental Policy (CEEP), Center for Fuel Cell Research, Center for Information and Communications Sciences (CICS), Center for Innovative Bridge Engineering, Center for Molecular Engineering and Thermodynamics (CMET), Center for the Study of Metals in the Environment, Delaware Center for Transportation(DCT), UD Mid-Atlantic Industrial Assessment Center.
- This target is integral with the University and the Delaware Technology Park's strengths in energy, defense, advanced materials, and life sciences/biotechnology.

- Newark offers central access to a broad industrial and business client base within the New-York-to-Washington corridor for IT services. The financial services sector in Wilmington is a major user of the IT skills within the target. Aberdeen Proving Ground would be another major user of IT services.
- This target is typified by small to mid-sized office users, which can be accommodated in Newark.
- Top talent can be recruited to Newark from around the world, because the area offers a quality of life attractive to engineers, scientists, and technicians; there are good employment opportunities for spouses; and there is an established professional community into which relocatees can fit. The area has established foreign communities to which foreign professionals can associate.

CITY OF NEWARK, DELAWARE

TARGET INDUSTRY ANALYSIS: Professional, Scientific, and Technical Services

October 2010



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INTRODUCTION

This target-industry-identification report is the product of a contract between the Wadley-Donovan Group (WDG), with Garnet Consulting Services, Inc., serving as a subcontractor, and the City of Newark, Delaware. This report is being submitted in conjunction with three other target reports: Research and Development Centers; Professional, Scientific and Technical Services; and Administrative and Customer Services; a Strengths, Weaknesses, Opportunities and Threats (SWOT) assessment of the City; and an Economic Development Master Plan.

The findings presented herein are those of the WDG Team only. We have examined the City from a corporate location perspective and from our knowledge of corporate locational trends, decision-making factors, and economic-development best practices and activities.

Sources for the information found in the report include the U.S. Bureau of Labor Statistics, ReferenceUSA, Datamonitor, and others.

DEFINITION

For purposes of this target industry analysis, the Professional, Scientific and Technical cluster consists of six sub-sectors: *Engineering Services* (NAICS 541330); *Environmental Consulting Services* (NAICS 541620); *Human Resources Consulting Services* (NAICS 541612); *Other Management Consulting Services* (NAICS 541618); *Other Scientific and Technical Consulting Services* (NAICS 541690) and *Defense Related Consulting, (Various NAICS Codes)*.

1. Engineering Services (NAICS 541330)

Definition: This target is comprised of establishments primarily engaged in applying physical laws and principles of engineering in the design, development, and utilization of machines, materials, instruments, structures, processes, and systems. The assignments undertaken by these establishments may involve any of the following activities: provision of advice, preparation of feasibility studies, preparation of preliminary and final plans and designs, provision of technical services during the construction or installation phase, inspection and evaluation of engineering projects, and related services.

Examples of functions within the NAICS Code include:

- Chemical engineering services
- Consulting engineers' private practice
- Electrical engineering services
- Engineering consulting services
- Engineering design services
- Environmental engineering services
- Industrial engineering services
- Mechanical engineering services

2. Environmental Consulting Services (NAICS 541620)

Definition: This target consists of establishments primarily engaged in providing advice and assistance to businesses and other organizations on environmental issues, such as the control of environmental contamination from pollutants, toxic substances, and hazardous materials. These establishments identify problems (e.g., inspect buildings for hazardous materials), measure and evaluate risks, and recommend solutions. They employ a multi-disciplined staff of scientists, engineers, and other technicians with expertise in areas, such as air and water quality, asbestos contamination, remediation, and environmental law. Establishments providing sanitation or site remediation consulting services are included in this industry.

Examples of functions within the NAICS Code include:

- Environmental consulting services

- Sanitation consulting services
- Site remediation consulting services

3. Human Resources Consulting Services (NAICS 541612)

Definition: This target consists of establishments primarily engaged in providing advice and assistance to businesses and other organizations in one or more of the following areas: (1) human resource and personnel policies, practices, and procedures; (2) employee benefits planning, communication, and administration; (3) compensation systems planning; and (4) wage and salary administration.

Examples of functions within the NAICS Code include:

- Benefit consulting services
- Compensation consulting services
- Compensation planning services
- Employee assessment consulting services
- Employee benefit consulting services
- Labor relations consulting services
- Organization development consulting services
- Personnel management consulting services

4. Other Management Consulting Services (NAICS 541618)

Definition: This target consists of establishments primarily engaged in providing management consulting services (except administrative and general management consulting; human resources consulting; marketing consulting; or process, physical distribution, and logistics consulting). Establishments providing telecommunications or utilities management consulting services are included in this industry.

Examples of functions within the NAICS Code include:

- Telecommunications management consulting services
- Utilities management consulting services

5. Other Scientific and Technical Consulting Services (NAICS 541690)

Definition: This target is composed of establishments primarily engaged in providing advice and assistance to businesses and other organizations on scientific and technical issues (except environmental).

Examples of functions within the NAICS Code include:

- Agricultural consulting services
- Agrology consulting services
- Agronomy consulting services
- Biological consulting services
- Chemical consulting
- Energy consulting services
- Geochemical consulting services
- Hydrology consulting services
- Physics consulting services

6. Defense-Related Consulting (Various NAICS)

Definition: This target consists of engineering and other technical consulting service firms serving the defense industry. Services include consulting on tactical weapons systems, armor, communications systems, logistics, and information technology, among others.

BUSINESS PROFILE OF THE PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES CLUSTER

Companies that offer management, scientific, and technical consulting and other services influence how businesses, governments, and institutions make decisions. These firms often offer technical expertise, information, contacts, and tools that clients cannot provide themselves. One of the resources that consulting and other service firms most commonly provide to clients is expertise—in the form of knowledge, experience, special skills, or creativity. Clients include large and small companies in the private sector; federal, state, and local government agencies; institutions, such as hospitals, the military, universities, unions, and nonprofit organizations; and foreign governments or businesses. Larger consulting firms usually provide expertise in a variety of fields, whereas smaller consulting firms generally focus on one area of expertise.

This cluster has two principal subsectors: *professional services,* and *scientific and technical services*. Firms within the professional consulting and services sector provide counsel on almost every aspect of corporate operations, such as marketing; finance; corporate strategy and organization; manufacturing processes; information systems and data processing; electronic commerce (e-commerce); and human resource issues, including benefits and compensation.

Scientific and technical consulting and service firms, meanwhile, provide technical advice relating to almost all non-management organizational activities, including compliance with environmental and workplace safety and health regulations; the application of technology including engineering; agriculture; and the application of sciences such as biology, chemistry, geology, and physics.

Human resource services is the Newark target within the professional services sector. This target focuses on the efficient and effective management of human capital. Cluster firms advise clients on effective personnel policies, employee salaries and benefits, employee recruitment and training, and employee assessment. Firms in this sub-sector might be asked to help determine the appropriate level of employer and employee contributions to healthcare and retirement plans, set up or administer benefits programs and compensation structures, manage payroll systems, and reduce employee turnover.

Scientific and technical consulting service sector firms provide services similar to those offered by general management consulting firms, but the information is more technical in nature. One of the largest specialties in scientific and technical consulting services is environmental services. Environmental consulting firms identify and evaluate environmental problems, such as the presence of surface or underground water contaminants, and offer remedial solutions or other actions. Others advise their clients about controlling emissions of environmental pollutants, cleaning up contaminated sites, establishing recycling programs, and complying with government environmental laws and regulations. Real estate developers, manufacturers, utilities, and government agencies may all require the expertise of an environmental consultant.

Scientific and technical consulting firms also advise on a diverse range of issues relating to the physical sciences—issues having to with agriculture, biology, chemistry, energy, and physics. Agricultural consulting firms advise on different farming techniques that increase agricultural production. Energy consultants advise clients on how to reduce costs by implementing energy-saving machinery and other conservation steps, through improved insulation, and on the use of alternative energy sources. Biological, chemical, and physics consultants give theoretical or applied expertise in those fields.

Firms within the defense-related consulting target offer a diverse set of services such as those related to modeling and simulation, command and control systems, satellite and other communications, logistics, information security, advanced decision-support technologies, organizational performance, energy-management solutions, and tactical collaborative networks.

The vast majority of establishments in the industry are relatively small, employing fewer than five workers. Self-employed individuals operated many of these small firms. Despite the prevalence of small firms and self-employed workers, large firms tend to dominate the industry. Approximately 41% of sector jobs are found in

establishments with 50 or more employees, and some of the largest firms in the industry employ several thousand people.

Table 1 shows the target industry statistics by sector for the nation.

TABLE 1: U.S. Target Industry Statistics (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Industry Sectors	Employment	Establishments	Average Establishment Size	Average Annual Earnings
Engineering Services (NAICS 541330)	879,030	67,485	13.0	$81,649
Environmental Consulting Services (NAICS 541620)	75,162	10,663	7.1	$64,900
Human Resources Consulting Services (NAICS 541612)	69,752	10,112	6.9	$78,789
Other Management Consulting Services (NAICS 541618)	86,881	18,639	4.7	$79,873
Other Scientific and Tech Consulting Services (NAICS 541690)	145,650	37,788	3.9	$72,970

STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS ANALYSIS

Management, scientific, and technical consulting has grown rapidly over the past several decades. More companies are relying on outside consultants and service providers, because of their specialized expertise, they are cost effective, and can be hired temporarily.

Geographic Concentration by State

The leading states for the professional, scientific and technical services sub-sectors, in the number of establishments and employment are presented in Tables 2 through 6, where data is available.

TABLE 2: Concentration of Engineering Services (NAICS 541330) by State, Employment, and Establishments (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
California	7,229	10.7%	105,745	12.0%
Texas	5,367	8.0%	92,075	10.5%
Florida	4,914	7.3%	52,241	5.9%
Colorado	2,736	4.1%	32,113	3.7%
New York	2,464	3.7%	32,750	3.7%

TABLE 3: Concentration of Environmental Consulting Services (NAICS 541620) by State, Employment, and Establishments (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
California	1,074	10.1%	11,985	15.9%
Florida	827	7.8%	4,780	6.4%
Texas	629	5.9%	5,005	6.7%
Colorado	499	4.7%	2,580	3.4%
New York	487	4.6%	4,244	5.6%

TABLE 4: Concentration of Human Resources Consulting Services (NAICS 541612) by State, Employment, and Establishments (2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
California	978	9.7%	9,379	13.4%
Florida	947	9.4%	6,004	8.6%
New York	641	6.3%	4,750	6.8%
Illinois	635	6.3%	2,873	4.1%
New Jersey	525	5.2%	4,704	6.7%

TABLE 5: Concentration of Other Management Consulting Services (NAICS 541618) by State, Employment, and Establishments (2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
Texas	3,006	16.1%	17,072	19.6%
Florida	2,238	12.0%	5,811	6.7%
California	1,705	9.1%	13,822	15.9%
New York	1,391	7.5%	4,808	5.5%
Illinois	1,201	6.4%	3,557	4.1%

TABLE 6: Concentration of Other Scientific and Technical Consulting Services (NAICS 541690) by State, Employment, and Establishments (2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
California	14,985	39.7%	64,439	44.2%
Florida	2,898	7.7%	7,177	4.9%
Texas	1,876	5.0%	8,819	6.1%
Illinois	1,292	3.4%	3,819	2.6%
New York	1,265	3.3%	4,564	3.1%

Geographic Concentration by Metro Area

Where data is available, we identify in Tables 7-11 the ten MSAs with the greatest employee and employer concentrations. This data will be helpful in marketing for company and workforce recruiting by the City.

Importantly, Newark is within the top ten metro areas (i.e., Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA) in three of the target sectors: Engineering Services, Environmental Consulting Services, and Human Resource Consulting Services. Meanwhile, the New York and Washington, DC metro areas are among the top 10 employment locations for all of the subsectors, putting target employers in the City in an advantageous location for recruiting talent from these two higher-cost locations.

TABLE 7: Highest Concentration of Engineering Services (NAICS 541330) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	2,456	3.6%	N/A	N/A
Los Angeles-Long Beach-Santa Ana, CA MSA	2,349	3.5%	37,539	4.3%
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	2,041	3.0%	41,947	4.8%
Houston-Baytown-Sugar Land, TX MSA	1,811	2.7%	N/A	N/A
Chicago-Naperville-Joliet, IL-IN-WI MSA	1,593	2.4%	19,259	2.2%
Atlanta-Sandy Springs-Marietta, GA MSA	1,497	2.2%	18,603	2.1%
Denver-Aurora, CO MSA	1,455	2.2%	N/A	N/A
Miami-Fort Lauderdale-Miami Beach, FL MSA	1,327	2.0%	12,378	1.4%
Dallas-Fort Worth-Arlington, TX MSA	1,288	1.9%	N/A	N/A
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	1,247	1.8%	17,441	2.0%

TABLE 8: Highest Concentration of Environmental Consulting Services (NAICS 541620) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	473	4.4%	4,268	5.7%
Los Angeles-Long Beach-Santa Ana, CA MSA	316	3.0%	3,360	4.5%
Chicago-Naperville-Joliet, IL-IN-WI MSA	260	2.4%	1,669	2.2%
Denver-Aurora, CO MSA	257	2.4%	N/A	N/A
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	248	2.3%	N/A	N/A
Boston-Cambridge-Quincy, MA-NH MSA	235	2.2%	2,199	2.9%
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	235	2.2%	N/A	N/A
Houston-Baytown-Sugar Land, TX MSA	208	2.0%	N/A	N/A
Miami-Fort Lauderdale-Miami Beach, FL MSA	199	1.9%	1,017	1.4%
San Francisco-Oakland-Fremont, CA MSA	182	1.7%	2,831	3.8%

TABLE 9: Highest Concentration of Human Resources Consulting Services (NAICS 541612) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	795	7.9%	7,150	10.3%
Chicago-Naperville-Joliet, IL-IN-WI MSA	500	4.9%	N/A	N/A
Los Angeles-Long Beach-Santa Ana, CA MSA	374	3.7%	4,048	5.8%
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	336	3.3%	N/A	N/A
Miami-Fort Lauderdale-Miami Beach, FL MSA	319	3.2%	1,303	1.9%
Atlanta-Sandy Springs-Marietta, GA MSA	298	2.9%	3,045	4.4%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	257	2.5%	1,911	2.7%
San Francisco-Oakland-Fremont, CA MSA	205	2.0%	2,592	3.7%
Phoenix-Mesa-Scottsdale, AZ MSA	198	2.0%	N/A	N/A
Denver-Aurora, CO MSA	183	1.8%	770	1.1%

TABLE 10: Highest Concentration of Other Management Consulting Services (NAICS 541618) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	1,695	9.1%	6,902	7.9%
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	1,290	6.9%	9,325	10.7%
Dallas-Fort Worth-Arlington, TX MSA	990	5.3%	8,555	9.8%
Houston-Baytown-Sugar Land, TX MSA	845	4.5%	3,883	4.5%
Chicago-Naperville-Joliet, IL-IN-WI MSA	817	4.4%	2,829	3.3%
Miami-Fort Lauderdale-Miami Beach, FL MSA	761	4.1%	1,687	1.9%
Los Angeles-Long Beach-Santa Ana, CA MSA	666	3.6%	4,839	5.6%
San Francisco-Oakland-Fremont, CA MSA	335	1.8%	2,881	3.3%
Austin-Round Rock, TX MSA	308	1.7%	1,160	1.3%
Tampa-St. Petersburg-Clearwater, FL MSA	294	1.6%	1,008	1.2%

TABLE 11: Highest Concentration of Other Scientific and Technical Consulting Services (NAICS 541690) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
Los Angeles-Long Beach-Santa Ana, CA MSA	5,788	15.3%	22,914	15.7%
San Francisco-Oakland-Fremont, CA MSA	2,139	5.7%	9,702	6.7%
San Diego-Carlsbad-San Marcos, CA MSA	1,563	4.1%	6,145	4.2%
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	1,079	2.9%	7,321	5.0%
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	971	2.6%	3,820	2.6%
Miami-Fort Lauderdale-Miami Beach, FL MSA	938	2.5%	2,260	1.6%
Chicago-Naperville-Joliet, IL-IN-WI MSA	879	2.3%	2,947	2.0%
San Jose-Sunnyvale-Santa Clara, CA MSA	809	2.1%	N/A	N/A
Riverside-San Bernardino-Ontario, CA MSA	767	2.0%	3354	2.3%
Houston-Baytown-Sugar Land, TX MSA	688	1.8%	3452	2.4%

Industry Trends and Competitive Landscape

According to the U.S. Bureau of Labor Statistics, the professional, scientific, and technical consulting services cluster is projected to be the fastest growing industry sector over the next decade. This anticipated gain can be attributed to overall post-recession economic recovery and to the increasing complexity of businesses in all industry sectors.

Observed and forecasted trends affecting this target include the following:

- Consulting firms increasingly will be called on to meet corporate human capital and human resource needs as healthcare cost management, training programs, institution of corporate wellness programs, and management of human resource programs become more complex and important.
- The expansion of businesses will create opportunities for logistics-consulting firms to link new suppliers with producers to get finished goods to consumers more expeditiously.
- Businesses will be seeking advice from consulting firms on compliance with governmental workplace-safety and environmental laws. Companies are required to keep current on the latest changes in legislation affecting their businesses, including changes to tax laws, environmental regulations, policies affecting employee benefits and healthcare, and workplace safety.
- The increasing use of new technology and computer software will contribute to gains in all fields of consulting. For example, general management consulting firms will be needed to implement new accounting and payroll software; environmental and safety consulting firms will be called upon to assist their clients in using computer technology to monitor harmful substances in the environment

and workplace; and there will be a demand for IT consulting firms to design new computer systems and online distribution systems.

- The trend toward outsourcing, consolidations, acquisitions, and mergers will create opportunities for consulting firms in a variety of disciplines. To cut costs, many firms are outsourcing administrative and human-resources functions to consultants specializing in these services. This business strategy should provide opportunities in human-resources consulting for firms that manage their clients' payroll systems and benefits programs. At the same time, economic conditions are leading to more business mergers, acquisitions, and consolidations, providing opportunities for consulting firms to assist in the process.
- Globalization will continue to provide numerous opportunities for consulting firms wishing to expand their services—or help their clients expand—into foreign markets. Consulting firms can advise clients on strategies for entering foreign markets, and complying with foreign laws and taxes. The growth of international businesses will create numerous opportunities for logistics consulting firms as businesses seek to improve coordination in the expanding network of suppliers and consumers.
- As new enemies and threats impact our national security, there will be an on-going demand for new defense-related technology and equipment. Improving performance and speed will be a key goal of the U.S. military, and will likely cause an increase in defense-related consulting. As new technologies are constantly emerging, consultants will be required to help their military clients adopt these new tools to their best advantage.

Growth in management, scientific, and technical consulting services might be hampered by increasing competition from nontraditional consulting firms, such as investment banks, accounting firms, technology firms, and law firms. As consulting firms continue to expand their services, they will be forced to compete with a more diverse group of firms that provide similar services.

Economic downturns also can have an adverse effect on employment growth in consulting. As businesses are forced to cut costs, consultants may be among the first expenses that businesses eliminate. Furthermore, growth in some consulting specialties, such as executive-search consulting, is directly tied to the health of the industries in which they operate.

Growth Trends by Metro Area

Tables 12 through 16 show the metro areas that experienced the highest actual change in number of establishments and the change in employment between 2004 and 2009. Nearby target geo-clusters in the New York and Washington DC metro areas showed among the highest target growth in the country, offering Newark the potential to gain through proximity from these growth trends.

TABLE 12: Where's the Growth?—Highest Actual Change in Establishments for Engineering Services (NAICS 541330) by MSA (2004-2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Change in Number of Establishments (2004-2009)	% Change in Number of Establishments (2004-2009)	Change in Number of Employees (2004-2009)	% Change in Number of Employees (2004-2009)
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	324	18.9%	N/A	N/A
Denver-Aurora, CO MSA	233	19.1%	N/A	N/A
Houston-Baytown-Sugar Land, TX MSA	205	12.8%	N/A	N/A
Los Angeles-Long Beach-Santa Ana, CA MSA	186	8.6%	7,325	24.2%
Chicago-Naperville-Joliet, IL-IN-WI MSA	182	12.9%	N/A	N/A
Dallas-Fort Worth-Arlington, TX MSA	153	13.5%	N/A	N/A
Miami-Fort Lauderdale-Miami Beach, FL MSA	145	12.3%	-624	-4.8%
Tampa-St. Petersburg-Clearwater, FL MSA	141	23.5%	497	5.6%
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	137	5.9%	N/A	N/A
Phoenix-Mesa-Scottsdale, AZ MSA	119	12.0%	1,243	11.3%

TABLE 13: Where's the Growth?—Highest Percent Change in Establishments for Environmental Consulting Services (NAICS 541620) by MSA (2004-2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Change in Number of Establishments (2004-2009)	% Change in Number of Establishments (2004-2009)	Change in Number of Employees (2004-2009)	% Change in Number of Employees (2004-2009)
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	51	12.1%	638	17.6%
Denver-Aurora, CO MSA	41	19.0%	N/A	N/A
Jacksonville, FL MSA	32	80.0%	128	38.2%
Austin-Round Rock, TX MSA	30	53.6%	N/A	N/A
Las Vegas-Paradise, NV MSA	29	59.2%	179	71.9%
Chicago-Naperville-Joliet, IL-IN-WI MSA	27	11.6%	N/A	N/A
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	24	10.7%	N/A	N/A
Orlando, FL MSA	23	35.9%	N/A	N/A
Miami-Fort Lauderdale-Miami Beach, FL MSA	22	12.4%	-429	-29.7%
Phoenix-Mesa-Scottsdale, AZ MSA	22	19.3%	N/A	N/A

TABLE 14: Where's the Growth?—Highest Percent Change in Establishments for Human Resources Consulting Services (NAICS 541612) by MSA (2004-2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Change in Number of Establishments (2004-2009)	% Change in Number of Establishments (2004-2009)	Change in Number of Employees (2004-2009)	% Change in Number of Employees (2004-2009)
Phoenix-Mesa-Scottsdale, AZ MSA	27	15.8%	N/A	N/A
Tulsa, OK MSA	11	35.5%	26	13.0%
Trenton-Ewing, NJ MSA	8	18.6%	55	11.7%
Albuquerque, NM MSA	7	33.3%	30	39.0%
Baton Rouge, LA MSA	6	50.0%	N/A	N/A
Boise City-Nampa, ID MSA	6	22.2%	150	220.6%
Tucson, AZ MSA	6	37.5%	55	119.6%
Cheyenne, WY MSA	5	100.0%	54	270.0%
Mayagüez, PR MSA	4	N/A	N/A	N/A
Ames, IA MSA	3	N/A	N/A	N/A

TABLE 15: Where's the Growth?—Highest Percent Change in Establishments for Other Management Consulting Services (NAICS 541618) by MSA (2004-2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Change in Number of Establishments (2004-2009)	% Change in Number of Establishments (2004-2009)	Change in Number of Employees (2004-2009)	% Change in Number of Employees (2004-2009)
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	445	52.7%	2,764	42.1%
Miami-Fort Lauderdale-Miami Beach, FL MSA	306	67.3%	150	9.8%
Houston-Baytown-Sugar Land, TX MSA	183	27.6%	1,107	39.9%
Dallas-Fort Worth-Arlington, TX MSA	176	21.6%	N/A	N/A
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	169	11.1%	N/A	N/A
Tampa-St. Petersburg-Clearwater, FL MSA	153	108.5%	662	191.3%
Trenton-Ewing, NJ MSA	134	311.6%	300	111.5%
Orlando, FL MSA	98	65.8%	N/A	N/A
Phoenix-Mesa-Scottsdale, AZ MSA	77	42.8%	N/A	N/A
Jacksonville, FL MSA	73	102.8%	N/A	N/A

TABLE 16: Where's the Growth?—Highest Percent Change in Establishments for Other Scientific and Technical Consulting Services (NAICS 541690) by MSA (2004-2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Change in Number of Establishments (2004-2009)	% Change in Number of Establishments (2004-2009)	Change in Number of Employees (2004-2009)	% Change in Number of Employees (2004-2009)
Los Angeles-Long Beach-Santa Ana, CA MSA	3,888	204.6%	15,031	190.7%
San Francisco-Oakland-Fremont, CA MSA	1,330	164.4%	6,332	187.9%
San Diego-Carlsbad-San Marcos, CA MSA	1,027	191.6%	3,860	168.9%
Riverside-San Bernardino-Ontario, CA MSA	526	218.3%	2,577	331.7%
Miami-Fort Lauderdale-Miami Beach, FL MSA	509	118.6%	1,454	180.4%
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	502	87.0%	3,931	116.0%
San Jose-Sunnyvale-Santa Clara, CA MSA	485	149.7%	N/A	N/A
Sacramento--Arden-Arcade--Roseville, CA MSA	446	200.0%	1,529	181.6%
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	293	43.2%	1,266	49.6%
Chicago-Naperville-Joliet, IL-IN-WI MSA	280	46.7%	1,276	76.4%

Representative Companies

Table 17 provides a representative sample of companies with functions in the professional, scientific, and technical cluster.

TABLE 17: Representative Companies: Professional, Scientific and Technical Cluster

Company	City
Bechtel Group, Inc.	San Francisco, CA
Ch2m Hill Co Ltd.	Englewood, CO
Byers Engineering	Atlanta, GA
Camp Dresser & McKee Inc.	Cambridge, MA
Lockheed Martin Corp.	Bethesda, MD
Penmac Personnel Service Inc.	Springfield, MO
HDR Inc	Omaha, NE
PAR Technology Corp	New Hartford, NY
S&B Engineers & Constructors	Houston, TX
SAIC Inc	McLean, VA

Existing Greater Newark Companies

Companies located in the City with business primarily within the targeted industry and with five or more employees are listed below:

Company Name	Primary NAICS	Primary NAICS Description	Employees	Location Type
BE&K Inc	541330	Engineering Services	400	Branch
Applied Control Engineering	541330	Engineering Services	95	Headquarter
KCI Technologies Inc	541330	Engineering Services	90	Single Location
Tetra Tech Architects & Engrs	541330	Engineering Services	80	Branch
Delaware Engineering & Design	541330	Engineering Services	70	Single Location
Capitol Environmental Svc Inc	541330	Engineering Services	60	Headquarter
Frederic R Harris Inc	541330	Engineering Services	35	Single Location
Karins & Assoc Inc	541330	Engineering Services	30	Single Location
CBI Group LLC	541330	Engineering Services	30	Single Location
JMT	541330	Engineering Services	28	Single Location
Johnson Mirmiran & Thompson	541330	Engineering Services	28	Single Location
Mc Bride & Ziegler Inc	541330	Engineering Services	22	Single Location
Delaware Geological Survey	541690	Other Technical Consulting	21	Headquarter
Kercher Engineering Inc	541330	Engineering Services	16	Single Location

TABLE CONTINUES NEXT PAGE

Company Name	Primary NAICS	Primary NAICS Description	Employees	Location Type
Mc Cormick Taylor Inc	541330	Engineering Services	15	Single Location
Larson Engineering	541330	Engineering Services	10	Single Location
Cirrus Engineering	541330	Engineering Services	10	Single Location
Louis Berger Group	541330	Engineering Services	10	Single Location
W F Consulting	541330	Engineering Services	10	Single Location
Penn Technical Staffing Inc	541612	Human Resource Consulting	10	Single Location
Van Cleef Engineering Assoc	541330	Engineering Services	9	Single Location
Ten Bears Environmental	541330	Engineering Services	8	Single Location
Baker Ingram & Assoc	541330	Engineering Services	8	Single Location
Acorn Engineering	541330	Engineering Services	7	Single Location
Remington & Vernick Eng.	541330	Engineering Services	6	Single Location
Pressure Systems Engineering	541330	Engineering Services	6	Single Location
Worker Bee Staffing	541612	Human Resource Consulting	6	Single Location
Tek Solv	541612	Human Resource Consulting	6	Single Location
Sep,Dyna	541330	Engineering Services	5	Single Location
Separation Methods Techs Inc	541690	Other Technical Consulting	5	Single Location

PHYSICAL INFRASTRUCTURE REQUIREMENTS

Average establishment size in this target industry (4 to 13 employees) is misleading, because it reflects a mix of many small niche or boutique operations and the fewer but substantially larger operations of many of the internationally known companies shown in Table 17. For this reason, space needs vary from small offices in the 2,000-to-4,000-square-foot range to multi-floor operations (15,000 square feet or more) of major engineering and defense firms. Larger firms also usually have several high-quality meeting rooms or presentation spaces.

Some smaller firms may be interested in occupying space in an office-suites arrangement, which could host a wide range of office uses jointly occupying one or more floors. Such an office suite would have to provide adequate conference/presentation rooms.

Most companies in this sector, whether large or small, will be heavily dependent on data-transmission capabilities. Larger companies with dedicated computer rooms will require adequate floor loads and ventilation and cooling systems. An uninterrupted power supply or dual feed capability is desirable.

Other utility needs (in particular, public water and sewer, and natural gas service (if that is the source of space heating) are typical of the many office users already accommodated in the City.

Because many of the workers in this sector are younger (25 to 44 years of age) than the national average, work locations providing convenient access to the amenities sought by these younger workers—such as the live/work/play environment being created by the University of Delaware on its Science and Technology Campus—will support recruitment of workers to these business operations. In turn, a pool of these workers living in the area will support recruitment of the businesses. This industry is also frequently drawn to downtown locations because of the higher personal interaction among creative professionals and technicians than can occur in high-density work environments.

LABOR MARKET CHARACTERISTICS

The management, scientific, and technical consulting services industry had about one million wage and salary workers in 2008.

The vast majority of establishments in the industry are fairly small, employing fewer than five workers. Despite the predominance of small firms and self-employed workers, large firms tend to dominate the industry. Approximately 41% of jobs are found in establishments with 50 or more employees, and some of the largest firms in the industry employ several hundred or more people, such as McKinsey and Company, Bain Consulting, Boston Consulting, SRI, SAIC, and Accenture.

It is common for individuals to move into consulting after gaining experience in their field. Most management, scientific, and technical consulting services are fairly specialized, even though the industry comprises a variety of occupations as seen in Table 18.

Compared with other industries, the management, scientific and technical consulting services industry has a relatively high proportion of very well-educated workers. About 73% have a bachelor's degree, compared with 32% of workers in all industries combined according to the Bureau of Labor Statistics. Around 32% have a master's degree or higher, compared with 11% of workers in all industries. Certain jobs may have stringent entry requirements. For example, some management-consulting firms prefer to hire only workers who have a master's degree in business administration (MBA). Other positions can be attained only after many years of related experience.

Representative Occupations and Educational Attainment

Representative occupations required by the Professional, Scientific and Technical Services target are listed in Table 18, along with the educational requirements of each occupation.

TABLE 18: Employment of Wage and Salary Workers in the Professional, Scientific and Technical Services Cluster by Selected Occupations 2008 and Projected Change, 2008-2018 *

Source: Bureau of Labor Statistics, U.S. Department of Labor, Career Guide to Industries, 2010-11 Edition

Occupation	Employees, 2008 (in 1,000s)	Estimated % Change** 2008 - 2018	Minimum Educational Requirements
Management, business, and financial occupations	361.5	84.7%	-
General and operations managers	31.6	65.6%	Bachelors, plus experience
Employment, recruitment, and placement specialists	17.2	46.9%	Bachelors degree
Management analysts	146.8	85.5%	Bachelors, plus experience
Accountants and auditors	21.3	92.6%	Bachelors degree
Professional and related occupations	264.0	86.8%	-
Computer software engineers	23.1	102.4%	Bachelors degree
Computer systems analysts	15.8	85.5%	Bachelors degree
Engineers	34.7	91.0%	Bachelors degree
Environmental scientists and geoscientists	25.1	78.4%	Masters degree
Office and administrative support occupations	242.7	77.6%	-
Bookkeeping, accounting, and auditing clerks	21.6	85.5%	Moderate on-the-job training
Customer service representatives	28.0	104.0%	Moderate on-the-job training
Secretaries and administrative assistants	68.5	77.5%	-
Office clerks, general	41.5	65.6%	Short on-the-job training

** Representative list of occupations*

*** Change in occupations based on national estimates*

Wages and Salaries

Workers in the information technology industry generally command higher salaries than those of most other industry groups. In 2009, the national average annual earnings for the three industry subsectors described in this study ranged from $64,900 to $81,649, significantly higher than the overall average annual earnings for all business sectors. Salaries for 2009 in selected occupations in the Professional, Scientific and technical Services target appear in Table 19.

TABLE 19: Median Annual Salaries by Selected Occupations 2009
Source: U.S. Department of Labor O*Net and U.S. Bureau of Labor Statistics

Occupation	Annual Median Salary
Management, business, and financial occupations	-
General and operations managers	$92,650
Employment, recruitment, and placement specialists	$46,200
Management analysts	$75,250
Accountants and auditors	$60,340
Business operations specialists, all other	$60,610
Market research analysts	$61,580
Professional and related occupations	-
Computer software engineers	-
Computer systems analysts	$77,080
Engineers	-
Environmental scientists and geoscientists	-
Office and administrative support occupations	-
Bookkeeping, accounting, and auditing clerks	$33,450
Customer service representatives	$30,290
Secretaries and administrative assistants	-
Office clerks, general	$26,140
Executive secretaries and administrative assistants	$41,650

RATIONALE FOR SELECTION

Newark offers many advantages for this industry, as indicated in the following:

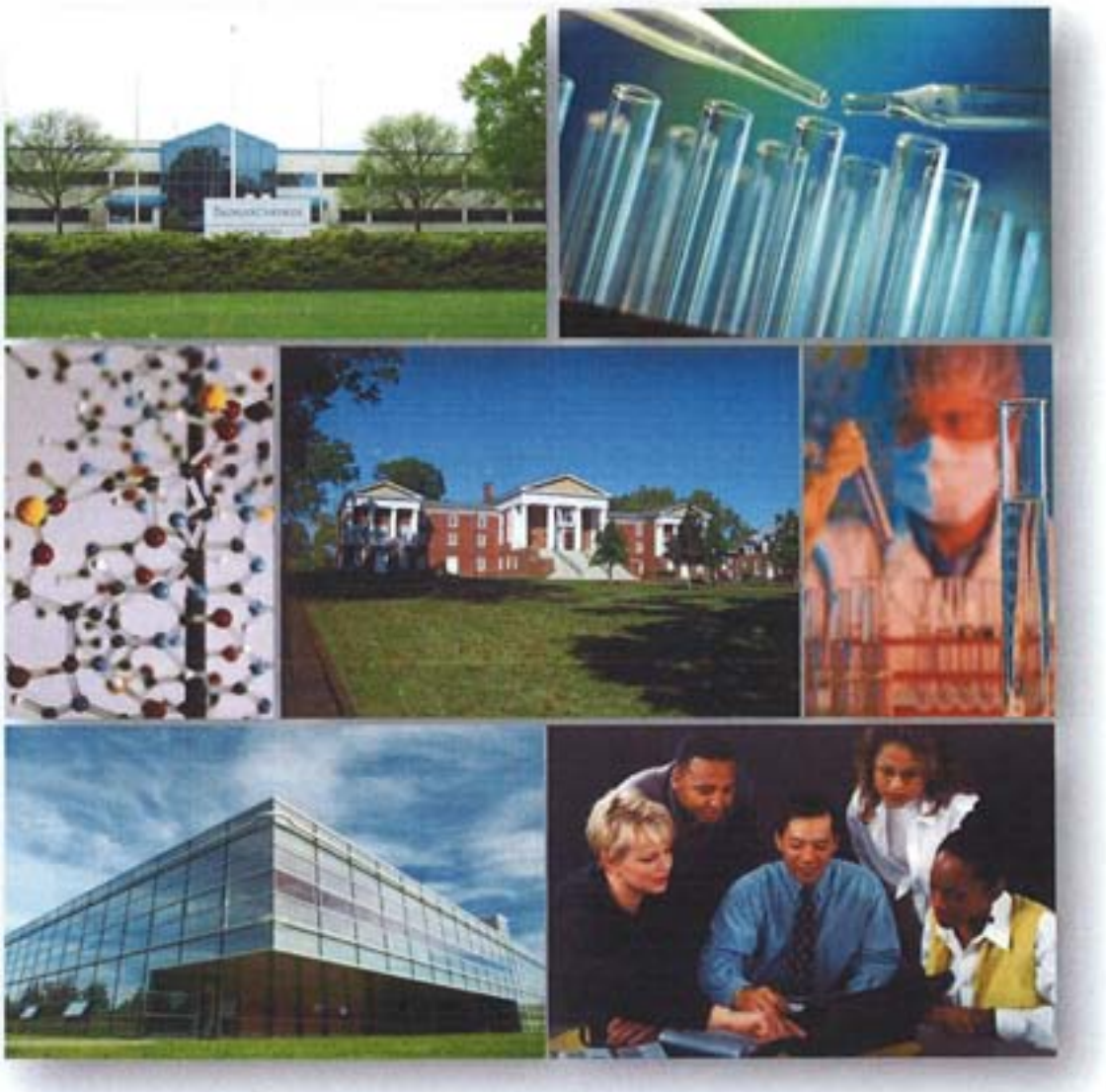
- New Castle County has an existing target industry base of 345 establishments and 2,873 employees within the targeted subsectors, and a base of 796 establishments and 6,041 employees within the larger professional, scientific and technical industry sector (Architectural, Engineering, and Related Services-NAICS-5413 and Management, Scientific, and Technical Consulting Services-NAICS 5416). This base serves as a foundation for continued development and expansion of the target, and demonstrates that the area is an existing, diverse center for professional, scientific and technical services.
- There is access to an existing resident talent base within the City's labor shed with skills needed by this target. There are almost 10,000 residents in the Newark labor shed with engineering and architectural skills, and there are 3,100 engineers employed in New Castle County, according to state data. This data also shows that there are 860 engineering technicians employed in the county.
- The BRAC expansion at Aberdeen Proving Ground and the associated contractor tail are directly linked to this target, and they fall within the development goals of the University of Delaware for its Research and Technology campus. Locations in Newark other than in the Research and Technology Campus offer added locational opportunities for this target and supporting operations.
- For companies within this target, there are linkage opportunities to programs at the University of Delaware and its Centers and Institutes involving engineering faculty: Delaware Biotechnology Institute (DBI), Delaware Environmental Institute (DENIN), Disaster Research Center, Energy Institute (UDEI), and Institute of Energy Conversion (IEC).
- There also are linkage opportunities for target industry companies to the University's Research Centers: Catalysis Center for Energy Innovation (CCEI), Center for Applied Coastal Research, Center for Bioinformatics & Computational Biology (CBCB), Center for Biomedical Engineering Research (CBER), Center for Catalytic Science and Technology (CCST), Center for Composite Materials (CCM), Center for Energy and Environmental Policy (CEEP), Center for Fuel Cell Research, Center for Information and Communications Sciences (CICS), Center for Innovative Bridge Engineering, Center for Molecular Engineering and Thermodynamics (CMET), Center for the Study of Metals in the Environment, Delaware Center for Transportation(DCT), UD Mid-Atlantic Industrial Assessment Center

- Access to the University's research and laboratory resources and faculty would be an attraction to some sectors of this target. Faculty members are available as consultants and business partnerships.
- The University of Delaware awards 230 undergraduate, 64 masters, and 45 PhD engineering degrees per year in a variety of disciplines. Meanwhile, there are over 200 graduates per year combined in biochemistry, biology/biological sciences, chemistry, and physics. Companies locating in Newark would have access to these students for recruiting, and to matriculated students as interns or co-op students. Employers can develop special relationships with faculty members to allow identification of the best students for participation in these activities and for recruiting.
- Newark's central access to a broad industrial and business base within the New York to Washington corridor (particularly in the bio-pharma/life sciences sector) offers professional firms a broad potential-client market for consulting activity.
- The utility requirements of the target can be met in Newark.
- This target complements the Research and Development Centers target and the goals for business development at the University of Delaware's Technology Campus.
- The office space requirements for this industry range from small (which can be accommodated by some of the currently available office space), to mid-sized, (which could be accommodated by new development at the University's Technology campus or in a new business park development).
- This target complements the University's and Delaware Technology Park's specialties in energy, advanced materials, biotechnology/life sciences, defense, and information technology.
- A Newark location provides companies with central access to pharmaceutical talent from the New York-to-Washington pharma corridor for recruiting and consultation.
- Top talent can be recruited to Newark from around the world, because the area offers a quality of life attractive to engineers, scientists, and technicians; there are good employment opportunities for spouses; and there is an established professional community into which relocatees can fit. The area has established foreign communities to which foreign professionals can associate.

CITY OF NEWARK, DELAWARE

TARGET INDUSTRY ANALYSIS: Research and Development Centers

October 2010



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CONTENTS

INTRODUCTION

This target-industry-identification report is the product of a contract between the Wadley-Donovan Group (WDG), with Garnet Consulting Services, Inc., serving as a subcontractor, and the City of Newark, Delaware. This report is being submitted in conjunction with three other target reports: Information Technology: Computer Systems Design and Related Services; Professional, Scientific and Technical Services; and Administrative and customer Services; a Strengths, Weaknesses, Opportunities and Threats (SWOT) assessment of the City; and an Economic Development Master Plan.

The findings presented herein are those of the WDG Team only. We have examined the City from a corporate location perspective and from our knowledge of corporate locational trends, decision-making factors, and economic-development best practices and activities.

Sources for the information found in the report include the U.S. Bureau of Labor Statistics, ReferenceUSA, Datamonitor, and others.

DEFINITION

For purposes of this target industry analysis, the Professional, Scientific and Technical cluster consists of two sub-sectors: *Research and Development in Biotechnology* (NAICS 541711) and *Research and Development in the Physical, Engineering, and Life Sciences, except Biotechnology* (NAICS 541712).

1. Research and Development in Biotechnology (NAICS 541711)

Definition: establishments primarily engaged in conducting biotechnology research and experimental development. Biotechnology research and experimental development involves the study of the use of microorganisms and cellular and biomolecular processes to develop or alter living or non-living materials. This research and development in biotechnology may result in development of new biotechnology processes or in prototypes of new or genetically altered products that may be reproduced, used, or implemented by various industries.

Examples of functions within the NAICS Code include:

- Biotechnology research and development laboratories or services
- Biotechnology research and development laboratories or services in agriculture
- Biotechnology research and development laboratories or services in biology
- Biotechnology research and development laboratories or services in chemical sciences
- Biotechnology research and development laboratories or services in environmental science
- Biotechnology research and development laboratories or services in health sciences
- Biotechnology research and development laboratories or services in industrial research
- Biotechnology research and development laboratories or services in the medical sciences
- Biotechnology research and development laboratories or services in the physical sciences

2. Research and Development in the Physical, Engineering, and Life Sciences, except Biotechnology (NAICS 541712)

Definition: establishments primarily engaged in conducting research and experimental development (except biotechnology research and experimental development) in the physical, engineering, and life sciences, such as agriculture, electronics, environmental, biology, botany, computers, chemistry, food, fisheries, forests, geology, health, mathematics, medicine, oceanography, pharmacy, physics, veterinary, and other allied subjects.

Examples of functions within the NAICS code include:

- Agricultural research and development laboratories or services (except biotechnology R&D)
- Chemical research and development laboratories or services (except biotechnology R&D)

- Computer and related hardware research and development laboratories or services
- Electronic research and development laboratories or services
- Engineering research and development laboratories or services
- Environmental research and development laboratories or services (except biotechnology R&D)
- Health research and development laboratories or services (except biotechnology R&D)
- Industrial research and development laboratories or services (except biotechnology R&D)
- Life sciences research and development laboratories or services (except biotechnology R&D)
- Mathematics research and development laboratories or services
- Medical research and development laboratories or services (except biotechnology R&D)
- Physical science research and development laboratories or services (except biotechnology R&D)
- Physics research and development laboratories or services
- Alternative energy related research and development laboratories or services
- Defense related research and development laboratories or services
- Environmental research and development laboratories or services
- Advanced materials, including composites research and development laboratories or services
- Defense related research services, various NAICS codes

BUSINESS PROFILE OF THE RESEARCH DEVELOPMENT CENTERS, INCLUDING CONTRACT RESEARCH CLUSTER

Research and development (R&D) comprises three types of activity—basic research, applied research, and development.

1. Basic, fundamental, or pure research seeks to acquire and expand knowledge about our universe, world, and environment (physical and social). It is driven by curiosity to expand our understanding of basic scientific, mathematical, social, and other principles, often without any commercial or immediate benefit as a goal. Basic research generates new ideas, principles, and theories that may not be immediately used, but offer the foundations for commercial product creation through applied research. Most basic research is conducted at universities, usually funded by government, by foundation or corporate grants, by national laboratories, and by a small number of corporations, especially in the pharmaceutical and biotechnology industries.

2. Applied research uses the results gained from basic research and accumulated knowledge to solve a practical and identified problem. In business, applied research usually seeks to discover unmet needs within the marketplace and then use the findings from that research to create products or services that will meet the identified needs. Applied research can be used to create new products or enhance existing ones. Applied research can range from simple to highly complex applications, and is typically conducted by private companies across a broad spectrum of industries, the federal government, and non-profit organizations. Research can also be conducted on a contract basis (usually project-specific) by independent commercial contract research firms.

3. Development refines the technologies or processes of applied research into immediately usable products. Most development is done by the private sector and is usually oriented toward manufacturing.

Biotechnology is among the most active fields of research. Work in this discipline seeks to understand and use the fundamental processes of cellular life to develop more effective medicines and vaccines, consumer products, and industrial processes. Biotechnology usually means one of three things: the use of living organisms and/or biological entities in commercial or industrial purposes; the use of biological research into areas such as gene splicing and DNA as applied to industry; or analysis of relationships between living organisms, such as humans, and machinery/technology.

Advances in biotechnology have led to new drugs and vaccines, disease-resistant crops, more efficient enzymatic manufacturing processes, and new methods of dealing with hazardous materials. Bioinformatics, a branch of biotechnology that uses information technologies to work with biological data like DNA, is a particularly vibrant new field. Much of the interest in biotechnology has derived from the medical applications of its basic and applied research.

The target industry is characterized by a blend of small, medium, and large establishments; the size of the average establishment is modest, with fewer than 35 employees. However, more than 55% of employees work in establishments that employ more than 250 people.

Average annual salaries are high, ranging from $94,905 in the physical, engineering and life sciences subsector to $109,024 in the biotechnology subsector.

Table 1 shows the target industry statistics by sector for the nation.

TABLE 1: U.S. Target Industry Statistics (2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Industry Sectors	R&D in Biotechnology (NAICS 541711)	R&D in Physical, Engineering and Life Sciences (NAICS 541712)
Employment	139,637	412,726
Establishments	5,655	12,980
Average Establishment Size	24.7	31.8
Average Annual Earnings	$109,024	$94,905

STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS ANALYSIS

Basic research centers tend to locate in proximity to a cluster of universities that support their research thrust. Centers that are oriented toward development of product applications, on the other hand, need ready access to customers, suppliers, and/or corporate manufacturing facilities.

There are five key factors that companies consider when seeking a location for research and development centers:

- Recruitability of world-class scientific and professional talent from outside the immediate area. Companies must ensure that the location has quality-of-life assets that will enhance the global recruitment of new scientists and professionals and the transferability of employees from other corporate locations.
- A local labor market that assures a resident pool of scientific, engineering, and technician talent at both the exempt and non-exempt levels.
- Accessibility to domestic and international destinations. For R&D centers, ready accessibility – e.g., direct air service – to global cities is a locational prerequisite.
- Available low cost real estate. Real estate cost and availability are closely analyzed in the selection of a site for research and development centers. These functions can be housed in owned or leased facilities, but very often they must be newly constructed because of specialized needs. The availability of appropriately zoned land, almost always in the suburbs or suburban settings, and the stance of local governmental entities regarding environmental issues, permitting, etc., are crucial in the time-line for start-up.
- A favorable operating environment for R&D, such as access to a nearby scientific community, government support, and proximity to suppliers, corporate manufacturers, or headquarters.

Geographic Concentration by State

The leading locations for the two target sub-sectors are presented in Tables 2 and 3, where data is available.

TABLE 2: Concentration of Research and Development in Biotechnology (NAICS 541711) by State, Employment, and Establishments (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
California	692	12.2%	21,337	15.3%
Massachusetts	649	11.5%	27,000	19.3%
Maryland	411	7.3%	9,800	7.0%
Texas	335	5.9%	4,456	3.2%
Illinois	272	4.8%	2,258	1.6%

TABLE 3: Concentration of Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology) (NAICS 541712) by State, Employment, and Establishments (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

State	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
California	2,251	17.3%	84,341	20.4%
New York	750	5.8%	31,775	7.7%
Florida	675	5.2%	10,405	2.5%
Virginia	625	4.8%	20,904	5.1%
Massachusetts	593	4.6%	13,971	3.4%

Geographic Concentration by Metro Area

Where data is available, we identify in Tables 4 and 5 the ten MSAs with the greatest employee and employer concentrations. This data will be helpful in marketing for company and workforce recruiting by the City.

Significantly, Newark is within the top ten metro areas (i.e., Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA) in both of the target's two subsectors. The New York and Washington, DC metro areas are among the top ten employment locations for both of the subsectors, putting target employers in the City in an advantageous location for recruiting talent from these two higher-cost locations. Metro Baltimore also is among the nation's top ten locations in the number of establishments in the biotechnology subsector.

TABLE 4: Highest Concentration of Research and Development in Biotechnology (NAICS 541711) by MSA (2009)
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
Boston-Cambridge-Quincy, MA-NH MSA	504	8.9%	25,447	18.2%
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	327	5.8%	8,130	5.8%
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	219	3.9%	9,215	6.6%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	188	3.3%	15,500	11.1%
San Diego-Carlsbad-San Marcos, CA MSA	171	3.0%	8,569	6.1%
Chicago-Naperville-Joliet, IL-IN-WI MSA	161	2.8%	2,036	1.5%
San Francisco-Oakland-Fremont, CA MSA	151	2.7%	5,274	3.8%
Los Angeles-Long Beach-Santa Ana, CA MSA	121	2.1%	1,749	1.3%
Baltimore-Towson, MD MSA	111	2.0%	NA	0.0%
Seattle-Tacoma-Bellevue, WA MSA	95	1.7%	NA	0.0%

TABLE 5: Highest Concentration of Research and Development in the Physical, Engineering, and Life Sciences, (except Biotechnology) (NAICS 541712) by MSA (2009)

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages (QCEW)

MSA	Establishments	% of all Target Industry Establishments in U.S.	Employees	% of all Target Industry Employees in U.S.
Washington-Arlington-Alexandria, DC-VA-MD-WV MSA	729	5.6%	24,684	6.0%
New York-Northern New Jersey-Long Island, NY-NJ-PA MSA	636	4.9%	32,889	8.0%
Los Angeles-Long Beach-Santa Ana, CA MSA	534	4.1%	20,515	5.0%
Boston-Cambridge-Quincy, MA-NH MSA	472	3.6%	NA	0.0%
San Francisco-Oakland-Fremont, CA MSA	438	3.4%	22,712	5.5%
San Diego-Carlsbad-San Marcos, CA MSA	382	2.9%	13,840	3.4%
San Jose-Sunnyvale-Santa Clara, CA MSA	355	2.7%	15,243	3.7%
Seattle-Tacoma-Bellevue, WA MSA	315	2.4%	8,025	1.9%
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	239	1.8%	9,477	2.3%
Miami-Fort Lauderdale-Miami Beach, FL MSA	178	1.4%	1,473	0.4%

Trends and Competitive Landscape

The last several years have shown a consistent trend where overall R&D spending has expanded at a rate well above the overall growth of the GDP, according to the National Science Foundation:

- 2005-2006: 6.1%
- 2006-2007: 7.3%
- 2007-2008: 6.7%

These numbers show that even when other industries began to see impacts from the economic and financial crisis in late 2007 and throughout 2008, the crisis did not seem to significantly affect the performance and activities of R&D.

The private sector is both the largest performer and funder of R&D. In 2008, it conducted an estimated $289 billion of R&D, or 73% of the U.S. total, almost all of it in applied research; and in 2008, it funded an estimated $268 billion of funding for R & D, or 67% of all U.S. funding. The business sector spends more than four times as much on applied research as on basic research.

The academic sector is the second-largest performer of U.S. R&D, accounting for an estimated $51 billion in 2008. It is this sector that historically has been the primary performer of basic research.

Currently, academic institutions (typically universities) get much of their money from the National Science Foundation (NSF), the Department of Energy (DOE), the National Institutes of Health (NIH), the Department of Defense, and other U.S government agencies. Funding for basic research has increased under the Obama administration, and it is that administration's goal to increase the amount of government and corporate funding dedicated to research.

According to the National Science Foundation's report *Science and Engineering Indicators 2010*, two of Delaware's neighbors—New Jersey and Pennsylvania together with Connecticut—lead the country in chemical and pharmaceutical manufacturing-related R&D.

The importance of R&D as a contributor to economic growth and national competitiveness has continued to be recognized during the economic downturn over the past several years. As a result of the downturn, the nation has implemented financial market support measures and economic recovery packages, and these policies have included measures to promote and stimulate growth and innovation through R&D. The America Competes Act and the American Recovery and Reinvestment Act of 2009 both address the importance of the U.S. innovation system for national economic growth. The American Recovery and Reinvestment Act provided a substantial increase in federal fiscal year funding for R&D and R&D infrastructure.

According to past funding trends (which is a strong indicator of future spending trends, at least in the short term), six industry sectors accounted for 78% of private-sector-funded R&D and 95% of federally funded business R&D. Four of these sectors were manufacturing-related, including chemicals, computer and electronic products, aerospace and defense, and automotive. The remaining two groups are in services: software and computer-related, and R&D services. The chemicals industry (including pharmaceuticals) accounted for the largest proportion of R&D in the United States in 2007.

Significant job growth is expected among computer specialists, scientists, and engineers, particularly those working in the life and medical sciences. The demand for new drugs and procedures to cure and prevent disease to serve the aging population will fuel this growth. For example, biological scientists may be employed in biotechnology or pharmaceuticals, both growing areas. Many other scientists and engineers will be employed in defense and security R&D, also a growing field. As information technology continues to be an integral component of R&D, employment of computer specialists is expected to grow rapidly, particularly for those with some biological-science background working in bioinformatics.

Overall prospects for scientists and engineers should be favorable, with better opportunities for scientists who have doctoral degrees. Competition for basic and applied research funding is expected in all fields. Creativity is critical and required of job candidates, as scientists and engineers engaged in R&D are expected to propose new research designs. For experienced scientists and engineers, it also is important to remain current and adapt to changes in technologies that may shift resources and technology from one area of research to another.

Most R&D programs have long project cycles that continue during economic downturns. However, funding of R&D, particularly by private industry, is closely scrutinized during these periods. Since the federal government provides a significant portion of all R&D funding, shifts in policy also could have a marked impact on employment opportunities, particularly in basic research and aerospace.

Representative Companies

Table 16 provides a representative sample of companies with functions in the professional, scientific and technical services industry cluster.

TABLE 6: Representative Companies:
Research and Development Centers, including Contract Research

Company	City
Aerospace Corp	El Segundo, CA
Amylin Pharmaceuticals	San Diego, CA
Genentech Inc	San Francisco, CA
Abbot Laboratories	North Chicago, IL
Landauer Inc	Glenwood, IL
Roche Diagnostics Corp	Indianapolis, IN
GZA Geo Environmental Inc	Norwood, MA
Analytical Biochemistry Labs	Columbia, MO
Alcatel-Lucent	New Providence, NJ
ION Geophysical Corp	Houston, TX

Existing Greater Newark Companies

Companies located in the City with business primarily within the targeted industry and with five or more employees are listed below:

Company Name	Primary NAICS	Primary NAICS Description	Employees	Location Type
Helen F Graham Cancer Ctr	541711	Research & Development In Biotechnology	200	Single Location
ICON Clinical Research	541711	Research & Development In Biotechnology	47	Single Location
Atlantic Coast Labs Inc	541711	Research & Development In Biotechnology	30	Single Location

Company Name	Primary NAICS	Primary NAICS Description	Employees	Location Type
ANP Technologies Inc	541711	Research & Development In Biotechnology	16	Single Location
JCM Environmental	541711	Research & Development In Biotechnology	16	Single Location
Precision Air Inc	541711	Research & Development In Biotechnology	10	Single Location
ADA Environmental Svc	541711	Research & Development In Biotechnology	6	Single Location
Precision Air Inc	541711	Research & Development In Biotechnology	6	Single Location
Atlantic Hydrologic Inc	541711	Research & Development In Biotechnology	5	Single Location
ECG Industries Inc	541711	Research & Development In Biotechnology	5	Single Location

PHYSICAL INFRASTRUCTURE REQUIREMENTS

Average establishment size in this target industry (25 to 32 employees) is misleading, because it reflects a mix of many small niche or boutique operations and fewer but substantially larger operations of many of the internationally known companies shown in Table 10. For this reason, space needs vary from small offices in the range of 2,000 to 4,000 square feet to multi-floor operations (50,000 square feet or more) of major science, engineering, and defense firms. Larger firms also usually have several high-quality meeting rooms or presentation spaces. Many facilities within the life and other sciences sectors need wet laboratory space, which requires special ventilation and plumbing and other piped utilities. The cost for developing buildings with wet lab space is expensive. Some facilities also require special high-weight-bearing floors, high ceilings, and special electrical wiring.

Most companies in this sector, whether large or small, will be heavily dependent on data-transmission capabilities. Larger companies with dedicated computer rooms will require adequate floor loads and ventilation and cooling systems. An uninterrupted power supply or dual feed capability is desirable.

Public water and sewer, and natural gas service requirements can be higher than standard office needs (sometimes significantly so). Electric power requirements can also be high, depending upon the nature of the research equipment being used.

LABOR MARKET CHARACTERISTICS

This target relies heavily on workers with extensive post-secondary education. A larger percentage of workers in this industry have bachelors' or graduate-level degrees than in all other industries.

According to the U.S. Bureau of Labor Statistics, most science and engineering occupations require a minimum of a bachelor's degree; a master's or Ph.D. degree is typically necessary for senior researchers. Some fields require a Ph.D. even for entry-level research positions, particularly in basic research. Ongoing training is necessary for workers to stay current in their fields.

Science and engineering technicians may enter the industry without a bachelor's degree, but some bachelor's-degree holders begin as technicians before advancing to become researchers or pursuing additional education. Technicians usually begin working directly under a scientist, engineer, or a more senior technician and advance to working with less supervision. Continuing on-the-job training is important in order to learn to use the newest equipment and methods. Some technicians become supervisors responsible for a laboratory or workshop.

For those with a Ph.D., a period of academic research (known as a "postdoc") immediately after obtaining their degree is increasingly preferred by employers. Once in the industry, workers with doctorates typically begin as researchers, conducting and designing research projects in their field of expertise with a fair degree of autonomy. With their research training and specialized expertise, scientists or engineers with doctoral degrees design, conduct, and analyze experiments or studies.

As scientists or engineers gain expertise in a particular field of R&D, they may advance to more senior research positions or become managers. Those who remain in technical positions may undertake more creative work, designing research or developing new technologies at a higher level. Those in science and engineering management usually coordinate work in several disciplines or components of a project. As their careers

progress, they manage larger projects and ensure that the work aligns with the strategic goals of their organization. Nearly all managers are responsible for some aspect of funding and for meeting deadlines.

Representative Occupations and Educational Attainment

Representative occupations required by the research and development centers target are listed in Table 7, along with the educational requirements of each occupation.

TABLE 7: Employment of Wage and Salary Workers in the Research and Development Centers Cluster by Selected Occupations 2008 and Projected Change, 2008-2018*

Source: Bureau of Labor Statistics, U.S. Department of Labor, Career Guide to Industries, 2010-11 Edition

Occupation	Employees, 2008 (in 1,000s)	Estimated % Change** 2008 - 2018	Minimum Educational Requirements
Management, business, and financial occupations	124.7	25.0%	-
General and operations managers	14.9	11.1%	Bachelors, plus experience
Computer and information systems managers	6.0	24.8%	Bachelors, plus experience
Engineering managers	9.0	25.3%	Bachelors, plus experience
Management analysts	6.0	22.3%	Bachelors, plus experience
Accountants and auditors	7.5	27.5%	Bachelors degree
Professional and related occupations	371.8	27.1%	-
Computer software engineers	33.5	37.8%	Bachelors degree
Engineers	74.7	24.6%	Bachelors degree
Engineering technicians, except drafters	17.4	20.8%	Associates degree
Biological scientists	18.2	38.3%	Doctoral degree
Medical scientists, except epidemiologists	34.4	50.0%	Doctoral degree
Office and administrative support occupations	74.9	17.6%	-
Financial clerks	7.0	21.3%	-
Information and record clerks	11.7	13.2%	Short on-the-job training
Office clerks, general	10.9	21.2%	Short on-the-job training

Representative list of occupations

** Change in occupations based on national estimates*

Wages and Salaries

Workers in this target industry generally command higher salaries than those of most other industry groups. Average annual salaries are high, ranging from $94,905 in the physical, engineering and life sciences subsector to $109,024 in the biotechnology subsector.

Salaries for 2009 in selected occupations in the Research and Development Centers target appear in Table 12.

TABLE 12: Median Annual Salaries by Selected Occupations 2009*

Source: U.S. Department of Labor O*Net and U.S. Bureau of Labor Statistics

Occupation	Annual Median Salary
General and operations managers	$92,650
Natural sciences managers	$114,560
Computer software engineers, systems software	$93,470
Computer software engineers, applications	$87,480
Mechanical engineers	$77,020
Medical scientists, except epidemiologists	$74,590
Chemists	$68,220
Business operations specialists, all other	$60,610
Executive secretaries and administrative assistants	$41,650
Biological technicians	$38,700

RATIONALE FOR SELECTION

- New Castle County has an existing target base of 62 establishments with 4,200 employees. This base can be targeted for growth, and it can serve as a foundation for further development through business-attraction programs.
- Delaware has a tax-friendly environment for R&D. There are no sales taxes levied in the state, nor is there any property tax levied on office or test equipment, computer hardware, software, or telecommunications equipment.
- Access to University of Delaware patents through the University's Office of Economic Innovation and Partnerships, and the assistance offered by this office will be a significant attraction for developing startup businesses and attracting new facilities.
- Access to the University's research and laboratory resources and faculty would be an attraction to some sectors of this target. Faculty members are available as consultants and business partnerships.
- The University of Delaware awards 230 undergraduate, 64 masters, and 45 Ph.D. degrees per year in a variety of engineering disciplines. Meanwhile, there are over 200 graduates per year combined in biochemistry, biology/biological sciences, chemistry, and physics. Companies locating in Newark would have access to these students for recruiting, and to matriculated students as interns or co-op students. Employers can develop special relationships with faculty members to allow identification of the best students for participation in these activities and for recruiting.
- Linkage opportunities exist to multiple programs at the University of Delaware and its Centers and Institutes Involving engineering and scientific faculty: Delaware Biotechnology Institute (DBI), Delaware Environmental Institute (DENIN), Disaster Research Center, Energy Institute (UDEI), and Institute of Energy Conversion (IEC).
- Linkage opportunities exist to the University's Research Centers: Catalysis Center for Energy Innovation (CCEI), Center for Applied Coastal Research, Center for Bioinformatics & Computational Biology (CBCB), Center for Biomedical Engineering Research (CBER), Center for Catalytic Science and Technology (CCST), Center for Composite Materials (CCM), Center for Energy and Environmental Policy (CEEP), Center for Fuel Cell Research, Center for Information and Communications Sciences (CICS), Center for Innovative Bridge Engineering, Center for Molecular Engineering and Thermodynamics (CMET), Center for the Study of Metals in the Environment, Delaware Center for Transportation(DCT), UD Mid-Atlantic Industrial Assessment Center.
- Newark's central access to a broad industrial and business base within the New York-to-Washington corridor (particularly in the bio-pharma/life sciences sector) offers professional firms a broad potential-client market for contract research activity.
- This target includes contract research and corporate research centers, of which Newark has an established base, particularly for those serving the pharmaceutical industry, clustered between New York City and Raleigh, NC.
- There is access to an existing resident talent base within the City's labor shed with skills needed by this target. There are almost 10,000 residents in the Newark labor shed with engineering and related skills, and there are 3,100 engineers employed in New Castle County, according to state data. This data also shows that there are 860 engineering technicians employed in the County.
- The BRAC expansion at Aberdeen Proving Ground and the associated contractor tail are directly linked to this target, and they fall within the development goals of the University of Delaware for its Research and Technology campus. Newark offers locational advantages for those contractors over locations closer to APG, such as proximity to a Very High Research Activity Carnegie Foundation rated university, i.e., the University of Delaware.
- The utility requirements of the target can be met in Newark.

- Scheduled commercial air service exists through Philadelphia International Airport (44-minute drive) and Baltimore-Washington International Airport (1 hour and 20 minutes' drive).
- The City offers the highest level of telecom and broadband service, due in part to demands of the University of Delaware and the financial services industry in Wilmington.
- This target complements the City's Professional, Scientific and Technical Services target, and the University's and Delaware Technology Park's specialties in energy, advanced materials, biotechnology/life sciences, defense, and information technology.
- The office space requirements for this industry range from small (which can be accommodated by some of the currently available office space), to mid-sized, (which could be accommodated by new development at the University's Technology campus or in a new business park development). Large R&D centers can be accommodated in the Delaware Technology Park, and offer opportunities for any additional business or research parks that are developed, including the University of Delaware's Science and Technology Campus. Meanwhile, the Science and Technology Campus will be an attraction for this target.
- Top talent can be recruited to Newark from around the world, because the area offers a quality of life attractive to engineers, scientists, and technicians; there are good employment opportunities for spouses; and there is an established professional community into which relocatees can fit. The area has established foreign communities to which foreign professionals can associate, and the area is welcoming to foreign nationals.
- A Newark location offers central access to a cluster of top-ranked research universities within 100 miles, including Princeton University, the University of Pennsylvania, Johns Hopkins University, Rutgers University, and the University of Maryland. Meanwhile, the National Institute of Health is roughly a two-hour drive away in Bethesda, MD.
- Opportunities exist within this industry for prototype manufacturing.