

OppInc.

Opportunity Inc.

Hampton Roads' Workforce Development Board

**Hampton Roads Strategy
for Regional Innovation through
Workforce Development
2010-2013**

Introduction

Through Opportunity Inc.'s strategic planning process, the Board and Strategic Planning Committee concluded that innovation and entrepreneurship goals that emerged were sufficiently important to the economic prosperity of the region that they deserved a separate, dedicated strategic plan. This document is meant to stand on its own merits yet dovetail into the Opportunity Inc. strategic plan for its traditional programs.

The Planning Process

- Strategic Planning Committee met three times to review regional/national economic data, occupational demand, industry sector profiles and plan or monitor the process
- Staff met with industry groups, i.e., manufacturing, maritime, health care, construction to discuss economic conditions and workforce issues.
- Staff held pre-strategy meetings with economic developers, higher education representatives, K-12 superintendents and local government executive leadership to obtain input and test ideas.
- The Opportunity Inc. Board of Directors devoted its December 2009 Board Meeting to strategic planning.
- Opportunity Inc Strategic Planning Committee separates the plan in two: First, a plan for Opportunity Inc internal operations and traditional funding streams. And a second focused on driving regional innovation.
- Opportunity Inc's Executive Committee, Board Committees, Youth Council, and others provided input and comment on the initial draft.
- Plan finalized and approved at the Opportunity Inc. March 2010 meeting.

The Importance of Innovation in Regional Economic Development

Business innovation delivers new products; opens up new markets; and enhances productivity through improved processes. It is essential to the survival and prosperity of business organizations and therefore critically important for regional economies. It is surprising then, given its importance, there is no clear consensus on a functional definition of innovation.

Much research and literature on innovation, not to mention most of Hampton Roads regional initiatives to date, has a narrow technology-oriented focus. While R&D and technology commercialization are critical innovation factors – they tell only part of the story. Companies like Starbucks, Dominoes Pizza, Federal Express and Dell Computer all achieved success through innovative processes, customer experiences, and product delivery systems that set them apart from competitors.

The nature of the innovation process has changed in fundamental ways.¹ Innovation is:

- **Faster:** Advances diffusing at increasing rates.
- **Multidisciplinary:** The most valuable innovations arise from the intersection of different fields or spheres of activity.
- **Collaborative:** As innovations become more complex, they require cooperation and communication.
- **Democratized:** Innovation used to be the domain of research and development departments. Today more workers and even customers are involved in the innovation process. Firms in industries as diverse as software and food flavoring are providing tools to customers to design their own products.

This plan assumes that a broader view of innovation is necessary for regional economic competitiveness. Others are advancing similar views of innovation. A recent report of The Ewing Marion Kauffman Foundation, a leader in advancing innovation and entrepreneurship, "*an initiative in any dimension(s) of the business system to create substantial new value for customers and the firm.*" An Advisory Committee to the US Department of Commerce defined innovation as, "The design, invention, development and/or implementation of new or altered products, services, processes, systems, organizational structures, or business models for the purpose of creating new value for customers and financial returns for the firm." As put in the Kaufman report, these definitions emphasize "three points: originality (an initiative to create new value), a holistic view (an initiative in any dimension(s) of the business system), and customer outcomes (the value generated by the initiative for customers and the firm)." Lastly, as defined in a US Department of Labor funded report, "Innovation is the conversion of knowledge and ideas into a benefit, which may be for commercial use or the public good; the benefit may be new or improved products, processes or services. Innovation is a process of continuously generating and applying new ideas."²

These definitions of innovation not only broaden the traditionally R&D centric view, but pull in talent up and down the corporate ladder. Talented people generate ideas that drive innovation.

The change couldn't come any sooner. The reality is that fewer and fewer industries exist where the US can compete with a low cost strategy³. But such inclusion requires education and training systems that

¹ Measuring Regional Innovation: A Guidebook for Conducting Regional Innovation

² Michigan Department of Labor & Economic Growth, Bureau of Labor Market Information and Strategic Initiatives. Innovation Indicators: Report to the Council for Labor and Economic Growth, August 2007.

³ Measuring Regional Innovation: A Guidebook for Conducting Regional Innovation

produce a workforce of uniformly high quality. Economic developers must therefore look beyond broad measures of available workforce, and even the skilled workforce, to the quality of educational institutions when devising strategies to drive innovation.

In addition to top human/intellectual capital, innovation assets include financial, physical, and institutional capital. Every region has a unique mix of assets, networks, and innovation culture that governs its ability to support innovative firms and people.

The Talent Imperative

At its heart this plan is about retaining and nurturing talent as well as attracting it to the region.

Hampton Roads is home to 7 institutions of higher education with traditional, full program campuses and a medical school. Total 2009 undergraduate, graduate and first professional enrollment was 56, 241, which is 10% larger than the University of Texas at Austin and in about the same percentages per category. Additionally, there were another 42,632 students enrolled at the region's three Community Colleges. Students graduating from these institutions represent a tremendous intellectual resource that should be encouraged to stay in Hampton Roads.

With 108,000 military personnel, from all branches of the uniformed services, Hampton Roads has a large pool of disciplined, highly trained and re-trainable employees who could be enticed to stay in the region given the right employment opportunities.

Innovation and Entrepreneurial Activity

The most prosperous areas have a robust entrepreneurial community and a culture that supports it. Almost all net job creation since 1980 has occurred in firms less than five years old.⁴ In fact, firm age is a more important indicator of growth rate than size. Moreover there is a barbell effect, with job creation occurring at the youngest and oldest ends of the firm age spectrum. This isn't the whole story, however, as there is a considerable amount of churn—job creation and destruction—occurring in the youngest companies - roughly a third of which will close by their second year of existence, while half will make it to age five.⁵

Hampton Roads Regional Entrepreneurship System

To be successful, entrepreneurs need access to five critical resources. The work plan that emerges from this strategic plan will develop a leadership role for Opportunity Inc. and/or its non-profit subsidiary in delivering, or ensuring the delivery of the following:

Financing – the capital necessary to start and grow the business.

Talent – Intellectual capital and skilled workforce that augment the entrepreneurs own abilities.

⁴ Kauffman Foundation Research Series: Firm Formation and Economic Growth Where Will The Jobs Come From?, November 2009

⁵ Kauffman Foundation Research Series: Firm Formation and Economic Growth Where Will The Jobs Come From?, November 2009

Effective Networks – A community framework of other entrepreneurs who can help navigate their search for money, partnerships, people, and technology.

Infrastructure and Institutional Support - effective, state, local, and regional organizations to execute a coordinated entrepreneur development strategy.

Development of a Hampton Roads regional entrepreneurship system will be guided by three principles covered in more detail below: (1) entrepreneurship can be nurtured, with different skills training and assistance necessary at various stages of development; (2) there is a hierarchy of effectiveness in entrepreneurship programs; and, (3) the Hampton Roads region has many existing programs that should be better coordinated.

Innovation and Entrepreneurship indicators

In developing an innovation strategy for Hampton Roads, the region and its workforce were examined to ensure that the goals of the Board focus on the needs of the business community, anticipate social and demographic trends, and address gaps in existing worker skills, education/training, and community infrastructure.

Human Capital

The link between ideas and human capital is self evident. For innovation to occur, people with ideas need to have the incentive, freedom and resources to capitalize on their ideas. Skills development, particularly formal education and training, provide individuals with the tools with which to innovate.

High School Completions and Drop Out (by Cohort)

Division-Level Cohort Report, Four Year Rate Class of 2009 (First-time 9th Grade Cohort in 2005-2006)						
Division	Cohort	Virginia On-Time Graduation Rate	GED	Cohort Completion Rate	Dropouts	Dropout Rate
Chesapeake	3,494	86.5%	112	90.0%	261	7.5%
Franklin	137	71.5%	<	78.1%	26	19.0%
Isle of Wight	476	83.6%	10	85.7%	50	10.5%
Norfolk	2,138	73.8%	93	78.3%	217	10.1%
Portsmouth	1325	63.5%	31	65.8%	266	20.1%
Southampton	225	80.0%	<	83.1%	28	12.4%
Suffolk	1,141	77.8%	26	80.2%	144	12.6%
Virginia Beach	5,623	85.4%	236	89.7%	340	6.0%
WIA All	14,559	80.9%	508	84.4%	1332	9.1%

Source: VA Department of Education

Graduates and Completers by Continuing Education Plans

2007-2008 Report of High School Graduates and Completers by Plans													
	Attending Two-year Colleges	%	Attending Four-year Colleges	%	Other Continuing Education Plans	%	Employment	%	Military	%	No Plans	%	Total
Chesapeake	1,030	32%	1,547	48%	164	5%	322	10%	128	4%	35	1%	3,226
Franklin	14	16%	48	54%	6	7%	14	16%	6	7%	1	1%	89
Isle of Wight	106	27%	149	38%	33	9%	61	16%	23	6%	16	4%	388
Norfolk	436	25%	774	44%	160	9%	150	9%	89	5%	139	8%	1,748
Portsmouth	180	23%	408	51%	69	9%	83	10%	39	5%	21	3%	800
Southampton	80	43%	86	46%	8	4%	8	4%	6	3%	0	0%	188
Suffolk	268	31%	310	36%	72	8%	146	17%	58	7%	4	0%	858
Virginia Beach	1,487	28%	2,540	48%	441	8%	323	6%	174	3%	376	7%	5,341
LWIA XVI Totals	3,601	28%	5,862	46%	953	8%	1,107	9%	523	4%	592	5%	12,638
Hampton Roads Totals	4,833	26%	8,344	45%	1,292	7%	1,552	8%	722	4%	1,992	11%	18,735
Percent of State	20%		21%		33%		15%		29%		43%		22%
State Totals	24,722	29%	40,410	47%	3,949	5%	10,043	12%	2,510	3%	4,603	5%	86,237
Self Reported No adjustments have been made to reflect the mobility of the population..						Data include summer, 2008 graduates Source: Virginia Department of Education							

Educational Attainment

Current and 2019 projected educational attainment for those aged 25+ in Hampton Roads is listed in the table below.

Education	2009 Population	% of Pop.	2019 Population	% of Pop.
Less Than 9th Grade	34,178	3.23%	39,742	3.34%
9th Grade to 12th Grade	95,911	9.06%	119,032	10.00%
High School Diploma	270,070	25.52%	283,127	23.78%
Some College	274,010	25.90%	293,078	24.62%
Associate's Degree	71,237	6.73%	76,349	6.41%
Bachelor's Degree	199,058	18.81%	240,366	20.19%
Graduate Degree and Higher	113,597	10.74%	138,670	11.65%
	1,058,062	100.00%	1,190,365	100.00%

Source: EMSI Complete Employment - 4th Quarter 2009 and OIHR

Of note, individuals with less than a high school degree are expected to increase as a percentage of the population as are those with a BS or higher. While the later is good news, any increase in the percentage of population without a high school degree is troubling. Also, as many have some college as AS or BS degrees combined. This suggests a need to focus on improving the college completion rate.

Idea Generation and Commercialization

University research can contribute to regional economic development in several important ways. First, research brings money into the region like any other industry. Second, research funds innovation in the form of new knowledge, processes and products. This commercialization function is the most visible result of research. The third, and most important result, is the training of graduate students. In this regard, research is workforce development. Moreover, the most important source of commercialization is the knowledge researchers and students can provide should they have the ability to engage with industry.

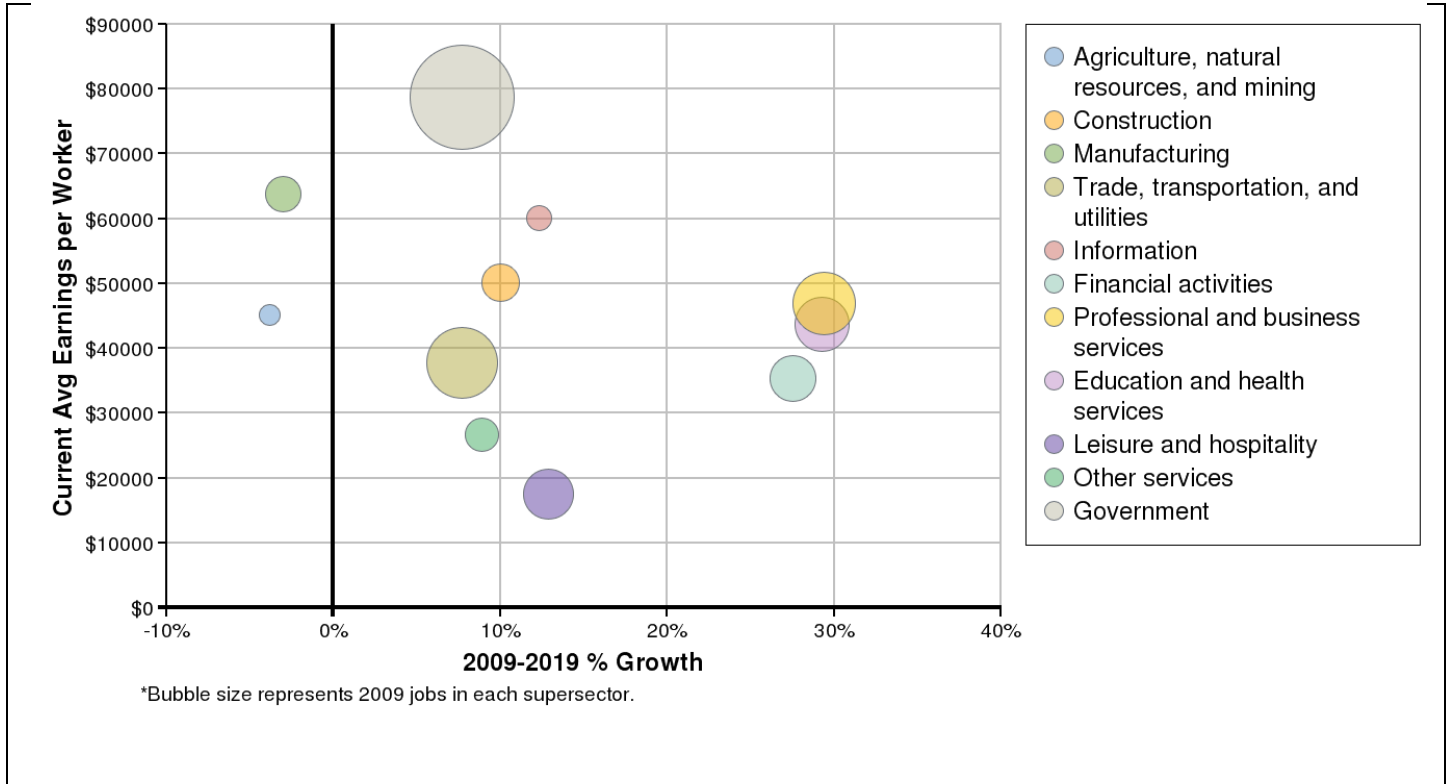
The table below shows academic R&D by funding source and type of institution for the US, Virginia, Hampton Roads and the rest of Virginia. The Commonwealth relies on its state supported institutions for academic research to an extent much greater than the rest of the US. On average, 68% of US research is performed at public academic institutions whereas in Virginia the comparable figure is 94%. This relationship argues for strong and sustained support for research capacity at state supported institutions. Second, federal research is a useful proxy for the competitiveness of an institution's research capability. By and large, federal research is competitively awarded unlike, say, state funds which often go to institutions "designated" for such research. On average, Hampton Roads institutions receive 62% of its funds from the Federal Government, which mean they are about as competitive as the rest of Virginia.

R&D expenditures at universities and colleges, by state, control, institution, and source of funds: FY 2007
(Dollars in thousands)

	All R&D expenditures	Federal government	State and local government	Industry	Institution funds	All other sources
United States	49,430,767	30,440,745	3,145,376	2,672,333	9,655,290	3,517,023
Public Universities	33,538,024	18,779,933	2,817,014	1,796,570	7,862,242	2,282,265
Percent Public	68%	62%	90%	67%	81%	65%
Percent of Total	100%	62%	6%	5%	20%	7%
Virginia	971,905	579,775	127,766	40,365	174,143	49,856
Public Universities	913,318	533,568	127,428	36,637	172,829	42,856
Percent Public	94%	92%	100%	91%	99%	86%
Percent of Total	100%	60%	13%	4%	18%	5%
Hampton Roads	164,658	102,727	8,130	6,907	37,269	9,625
Percent of State	17%	18%	6%	17%	21%	19%
Percent of Total	100%	62%	5%	4%	23%	6%
Rest of Virginia	807,247	477,048	119,636	33,458	136,874	40,231
Percent of State	83%	82%	94%	83%	79%	81%
Percent of Total	100%	59%	15%	4%	17%	5%

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Research and Development Expenditures at Universities and Colleges, FY 2007.

Industrial Structure

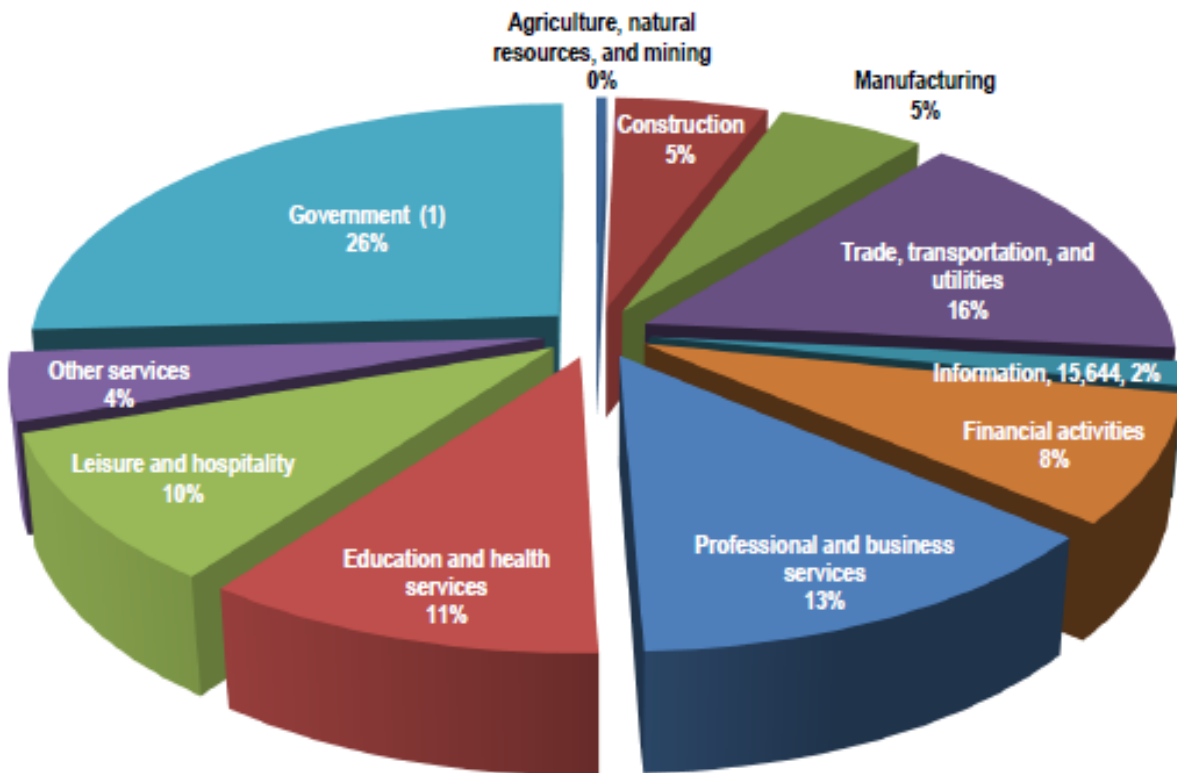


Industry Size and Growth 2009 - 2019

Description	2009 Jobs	% of Economy	2019 Jobs	% Growth	Current Earnings Per Worker
Agriculture, natural resources, and mining	3,566	0.4%	3,429	-4.0%	\$45,191
Construction	54,687	5.4%	60,155	10.0%	\$50,191
Manufacturing	53,038	5.2%	51,436	-3.0%	\$63,865
Trade, transportation, and utilities	158,552	15.6%	170,725	8.0%	\$37,698
Information	15,644	1.5%	17,572	12.0%	\$60,060
Financial activities	83,222	8.2%	106,145	28.0%	\$35,396
Professional and business services	134,024	13.2%	173,402	29.0%	\$46,869
Education and health services	107,712	10.6%	139,239	29.0%	\$43,689
Leisure and hospitality	98,448	9.7%	111,139	13.0%	\$17,595
Other services	44,375	4.4%	48,312	9.0%	\$26,686
Government***	262,928	25.9%	283,216	8.0%	\$78,748
Total	1,016,195	100.0%	1,164,769	15.0%	\$49,955

Source: EMSI Complete Employment - 4th Quarter 2009
 *** Local, state and federal employment including uniformed military

2009 Employment by Industry Sector



Source: EMSI Complete Employment - 4th Quarter 2009
 (1) Local, state and federal employment including uniformed

Hampton Roads still has a government driven economy, particularly with regard to defense related expenditures. Local, state and federal government – including the uniformed military - constitute nearly 26% of all employment. Moreover, such jobs pay among the best in Hampton Roads and include benefits. Trade, transportation and utilities are the second largest sector – not surprising given the presence of the Port of Virginia. Professional and business services represent the third largest industry category and include many defense-contracting jobs. Rounding out the top four industrial categories is education and health. All totaled the four top industrial categories represent nearly two-thirds of MSA employment.

Agriculture, natural resources and mining as well as manufacturing are small and expected to decline over the forecast period. However, the data under-represent the declines as both sectors will get smaller with the closing of International Paper's Franklin mill. The mill itself is in the manufacturing sector and it purchased much raw wood from local sources thus impacting the natural resources industries.

Occupational Growth

Average Annual Occupation Growth Over 5 Years in Hampton Roads, VA

SOC Code	Description	2009 Jobs	2014 Jobs	New Jobs	% Change	New & Replacement Jobs	% Change New & Replacement	Current Median Hourly Earnings
55-9999	Military Occupations	108,154	106,528	(1,626)	(2%)	12,613	12%	\$20.76
41-2031	Retail salespersons	30,704	33,578	2,874	9%	7,601	25%	\$9.00
41-2011	Cashiers, except gaming	22,468	22,708	240	1%	5,961	27%	\$7.75
43-9061	Office clerks, general	27,307	30,273	2,966	11%	5,471	20%	\$12.16
35-3031	Waiters and waitresses	15,397	16,680	1,283	8%	5,465	35%	\$8.36
43-4051	Customer service representatives	14,257	16,736	2,479	17%	4,464	31%	\$12.94
41-9022	Real estate sales agents	13,590	16,597	3,007	22%	4,093	30%	\$9.51
41-9021	Real estate brokers	10,922	13,627	2,705	25%	3,578	33%	\$7.76
35-3021	Combined food preparation and serving workers, including fast food	21,404	22,913	1,509	7%	3,538	17%	\$7.85
29-1111	Registered nurses	12,688	14,257	1,569	12%	2,616	21%	\$27.60

Source: EMSI Complete Employment - 4th Quarter 2009
 Localities Represented - Chesapeake, Franklin, Gloucester, Hampton, Isle of Wight, James City, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Surry, Virginia Beach, Williamsburg, and York

Net New Firms and Employment

Small businesses, defined as those with fewer than 500 employees, are the primary source for new jobs in the economy. From 2005-2006, among all MSAs, 74% of new businesses and 55% of net new employment were attributable to firms with fewer than 500 employees. In Hampton Roads, comparable figures are 69% of new businesses and 40% of new employment. That a smaller percentage of new regional firms and employment are attributable to small firms, suggests that Hampton Roads has a somewhat less robust entrepreneurial environment.

Establishments and Employment for Initial Year, Births, and Deaths by Enterprise									
Employment Size for each Metropolitan Statistical Area (MSA): 2005-2006									
MSA	DATA TYPE	Number of Establishments Employment Size of the Enterprise				Employment Employment Size of the Enterprise			
		TOTAL	<20	20-499	500+	TOTAL	<20	20-499	500+
All US MSA's	Initial year establishments	6,207,246	4,261,728	943,168	1,002,350	109,315,192	19,842,985	35,433,846	54,038,361
All US MSA's	Establishment births	777,233	602,822	66,040	108,371	6,417,010	1,889,416	1,904,323	2,623,271
All US MSA's	Establishment deaths	656,027	536,681	43,182	76,164	-5,052,340	-1,605,477	-1,445,106	-2,001,757
	Net Change	121,206	66,141	22,858	32,207	1,364,670	283,939	459,217	621,514
	Percent of Growth		55%	19%	27%		21%	34%	46%
	Percent Growth	2%	2%	2%	3%	1%	1%	1%	1%
VB-Norf-NN MSA	Initial year establishments	33,976	21,574	5,531	6,871	614,869	107,654	191,894	315,321
VB-Norf-NN MSA	Establishment births	4,384	3,107	466	811	37,956	10,181	12,299	15,476
VB-Norf-NN MSA	Establishment deaths	3,254	2,554	238	462	-22,356	-7,879	-8,330	-6,147
	Net Change	1,130	553	228	349	15,600	2,302	3,969	9,329
	Percent of Growth		49%	20%	31%		15%	25%	60%
	Percent Growth	3%	3%	4%	5%	3%	2%	2%	3%

SOURCE: 1989-2006 Business Information Tracking Series. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see <http://www.census.gov/spcd/subs/introub.html> and <http://www.census.gov/csd/subs/defitem.html>

Characteristics of Small Businesses in Hampton Roads

Small firms in Hampton Roads cluster in specific industry categories. Among very small firms, under 10 employees, the majority of firms are in Construction, Retail and Professional and Scientific categories. The top industries with 10 to 99 employees are Retail, Health Care and Accommodation and Food Services. Finally, major industries with 100 to 499 employees include Retail, Admin Support, Healthcare, Professional and Technical and Manufacturing.

2007 MSA Business Patterns Virginia Beach-Norfolk-Newport News Number of establishments by employment-size class									
NAICS	Industry code description	Total estabs	'1-4'	'5-9'	'10-19'	'20-49'	'50-99'	'100-249'	'250-499'
---	Total	39,473	19,848	7,967	5,690	3,857	1,312	652	147
	Percent of Total	100.0%	50.2%	20.1%	14.4%	9.7%	3.3%	1.6%	0.4%
11---	Forestry, fishing, hunting, and agriculture support	54	40	9	5	-	-	-	-
21---	Mining	16	8	4	1	2	1	-	-
22---	Utilities	32	12	2	3	4	5	5	1
23---	Construction	5,244	3,127	1,009	610	349	92	50	7
31---	Manufacturing	975	376	165	156	140	69	52	17
42---	Wholesale trade	1,575	774	309	248	168	48	25	3
44---	Retail trade	6,198	2,396	1,617	1,219	603	204	143	16
48---	Transportation & warehousing	1,109	618	169	140	113	44	17	8
51---	Information	699	340	123	96	79	40	16	5
52---	Finance & insurance	2,481	1,520	504	273	137	25	12	10
53---	Real estate & rental & leasing	2,220	1,499	411	188	80	29	10	3
54---	Professional, scientific & technical services	4,038	2,497	639	387	314	116	57	28
55---	Management of companies & enterprises	200	81	39	32	28	12	5	3
56---	Admin, support, waste mgt, remediation services	2,213	1,223	366	248	193	91	73	19
61---	Educational services	462	222	68	67	54	36	13	2
62---	Health care and social assistance	3,361	1,251	853	630	415	127	66	19
71---	Arts, entertainment & recreation	559	295	63	72	83	27	19	-
72---	Accommodation & food services	3,622	1,063	580	751	856	302	65	5
81---	Other services (except public administration)	4,384	2,476	1,036	564	239	44	24	1
99---	Unclassified establishments	31	30	1	-	-	-	-	-

Source: U.S. Census Bureau

Finally, “non-employers” are another type of small firm. These are companies with no listed employees and are sole proprietorships and partnerships. The top three industries in this category are Construction, Professional, Real Estate and Rental Leasing, and Scientific and Technical Services, which together comprise 38% of all such firms.

Non-employer Statistics, 2007
Total for all sectors
Virginia Beach-Norfolk-Newport News, VA-NC Metropolitan Statistical Area

NAICS Code	Description	Nonemployers			Pct of Firms
		Firms	Receipts (\$1,000)	Receipts/firm	
0	Total for all sectors	87,772	3,503,777	\$ 39,919	100%
11	Agriculture, forestry, fishing and hunting	951	40,182	\$ 42,252	1%
21	Mining, quarrying, and oil and gas extraction	22	2,361	\$ 107,318	0%
22	Utilities	74	2,489	\$ 33,635	0%
23	Construction	10,890	641,185	\$ 58,878	12%
31-33	Manufacturing	906	33,005	\$ 36,429	1%
42	Wholesale trade	1,338	80,594	\$ 60,235	2%
44-45	Retail trade	8,403	243,532	\$ 28,982	10%
48-49	Transportation and warehousing	3,480	186,928	\$ 53,715	4%
51	Information	1,121	25,426	\$ 22,682	1%
52	Finance and insurance	2,892	146,892	\$ 50,793	3%
53	Real estate and rental and leasing	12,364	951,286	\$ 76,940	14%
54	Professional, scientific, and technical services	10,553	366,577	\$ 34,737	12%
56	Administrative and support and waste management and remediation services	7,326	138,142	\$ 18,856	8%
61	Educational services	2,296	27,881	\$ 12,143	3%
62	Health care and social assistance	6,991	175,629	\$ 25,122	8%
71	Arts, entertainment, and recreation	4,845	80,186	\$ 16,550	6%
72	Accommodation and food services	1,114	76,134	\$ 68,343	1%
81	Other services (except public administration)	12,206	285,348	\$ 23,378	14%

Alignment with Other Regional Planning Efforts

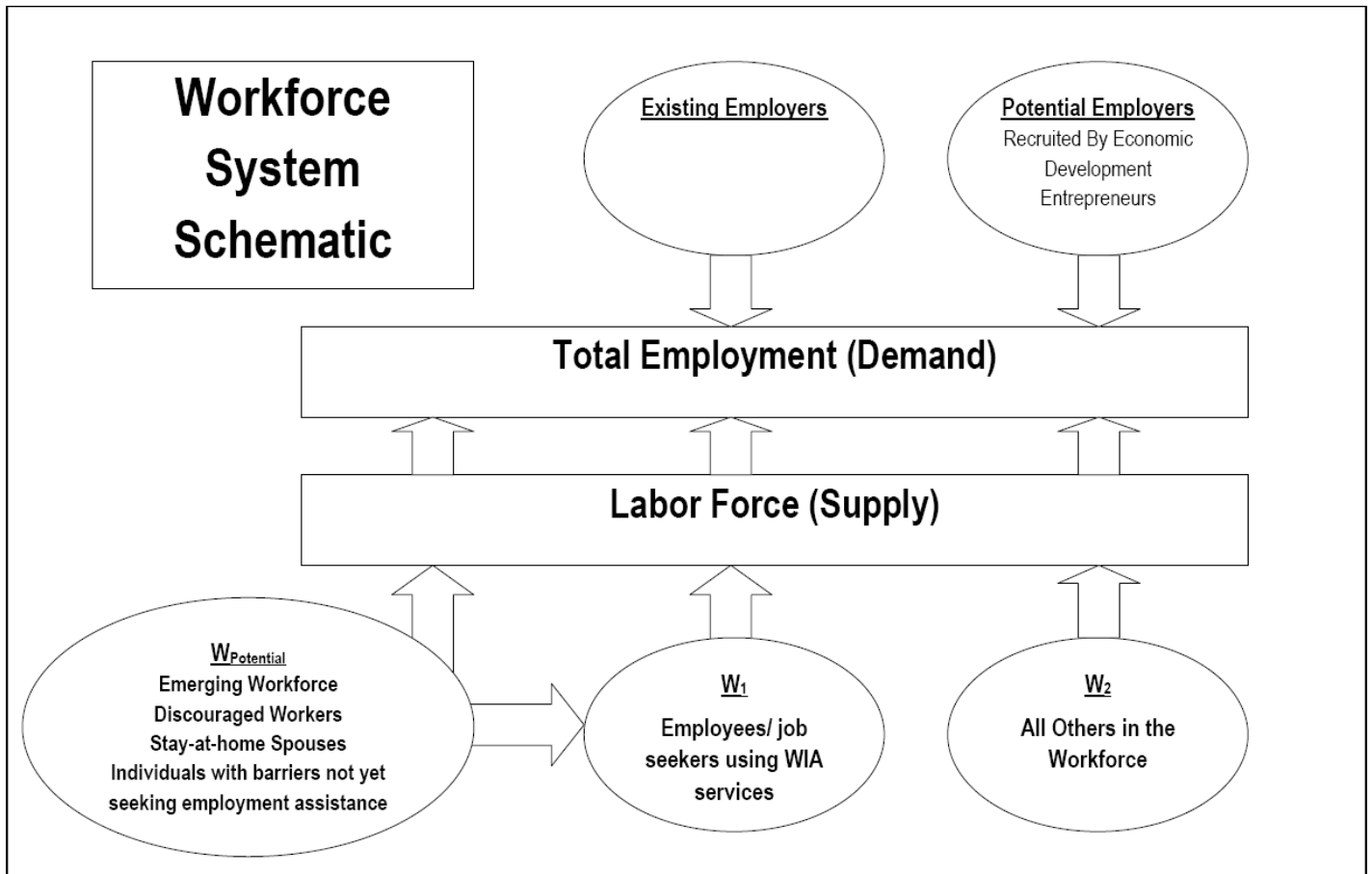
The Hampton Roads Partnership recently concluded a Community Economic Development System (CEDS) planning process sponsored by the US Economic Development Administration. The plan includes a significant innovation component with the goal that "Hampton Roads will be recognized as a region fueled by Innovation, Intellectual and Human Capital, Infrastructure and a Sense of Place." The plan envisions creating an organization, Innovate!HamptonRoads, to implement their strategy. This plan will not duplicate that effort but will seek to partner with it to ensure that a comprehensive innovation strategy is implemented. In light of the preceding discussion, such a strategy must be more than a "technology" strategy, impacting all facets of innovation. Opportunity Inc. will undertake necessary steps to ensure that such a comprehensive strategy emerges for our region.

Framing the Strategic Plan

There is general consensus that a well functioning workforce development system produces benefits for employer and employee alike. However, debate continues over which is the primary customer, with federally funded programs like the Workforce Investment Act (WIA) shifting emphasis between employers and employees with economic cycles. During expansions when labor demand is strong and unemployment low, emphasis is on employer. While recessions, when demand is weak and unemployment is high, emphasis turns to the job seeker.

Employers -- their employment needs -- as well as regional economic circumstances, inform the Hampton Roads Workforce Development Board as to where resources are needed and what systemic change might be required in our quest for a competitive workforce. Consider that there are multiple "workforces": one that Opplnc provides direct services to with existing program funding, some 6,000 – 8,000 individuals ("Workforce 1"); another, 562,000 current workers in the WIA XVI coverage area that Opplnc is also charged with serving in order to meet its mission ("Workforce 2"); and then include the emerging workforce ("Workforce potential"). Lastly, on the demand side, how can we impact the employer pool, and the occupations that they represent, in order to increase the number of high-wage jobs and career opportunities if we focus on developing/recruiting workers whose skills/talent include optimizing opportunities through innovation and entrepreneurship.

The following schematic is a graphical representation of the above.



Innovation and Entrepreneurship

Vision and Goals (Brief)

This plan outlines four goal areas that emerged from the planning process.

Vision

We will create an environment where innovators and entrepreneurs are developed, nurtured and valued

Goal 1: Drive innovation and regional economic expansion through talent development

Goal 2: Increase the region's stock of innovation capital by nurturing world-class research capabilities and increasing the flow of technology commercialization.

Goal 3: Attract and retain young and mid-career professionals to live and work in the region

Goal 4: Coordinate workforce development planning with regional economic development strategies, i.e., Vision Hampton Roads, Hampton Roads Modeling and Simulation Strategy 2020 and the Hampton Roads Economic Development Alliance

Vision, Goals and Strategies (Detail)

Goal 1: Drive innovation and regional economic expansion through talent development

Strategy 1: Create a working group of educators and business leaders to examine ways to "teach" entrepreneurship and innovation and develop ways to improve regional academic outcomes

Strategy 2: Identify and implement strategies to promote education in science, technology, engineering and mathematics

Strategy 3: Advocate for increased academic rigor and investment in higher education

Strategy 4: Identify and implement strategies to increase higher education attainment, including greater enrollment and on-time graduation.

Strategy 5: Recognize exceptional teaching and skill attainment in all school districts

Goal 2: Increase the region's stock of innovation capital by nurturing world-class university research capabilities and increasing the flow of technology commercialization.

Strategy 1: Increase the supply of skilled labor in the form of students entering the workforce and faculty consulting.

- Increase educational and research quality by hiring nationally prominent researchers into endowed chairs (preferably with industry and/or entrepreneurial backgrounds and in areas relevant to regional industry clusters). Such researchers are a magnet for talented graduate students and provide the intellectual capital for faculty consulting and increasing the university's research expenditures.
- Assist in building university endowments.
- Seek increases in state support, including:
 - General increases in university support.
 - Support for specific programs of interest to regional business.
 - Increased support for the state's Eminent Scholars Program.

Strategy 2: Promote research as an "export" product by working with universities to:

- Hire top researchers (as detailed above) into endowed positions.
- Incentivize and facilitate research by allowing researchers to cut back on classroom teaching in favor of research activities.
- Redefine the service component of scholarship (e.g., for tenure or promotion review) to encompass industry partnering, technology transfer, involvement in economic development, etc.
- Pursue federal or state monies (earmarks) to acquire unique equipment and/or facilities. Such amenities are often crucial to attracting the top talent.
- Continue to develop research parks.
- Simplify research contract language and terms to make industry funded research more attractive.
- Promote industrial extension and technical assistance centers (using faculty and students as outreach staff).

Strategy 3: Increase the flow of new products or processes coming from university research into new and existing regional businesses.

- Nurture start up ventures utilizing university intellectual property.
- Support business incubators.
- Encourage universities to develop policies helpful to would-be faculty entrepreneurs.
- Attract seed money for very early stage entrepreneurial efforts.
- Encourage universities to improve the contract terms that govern license or sale of IP.

Goal 3 : Attract and retain young and mid-career professionals to live and work in the region

- Strategy 1: Organize and lead a regional group with responsibility for national workforce recruitment to support high growth, high demand occupations
- Strategy 2: Quantify the skills of exiting military and develop a strategy for retaining those with needed skills in the current workforce
- Strategy 3: Develop and implement a strategy for retaining students graduating from the region's (and Virginia's) colleges and universities (internships/externships; college job fairs, college placement offices, etc.)
- Better align education and training offerings to the needs of key regionally-based industries/clusters so there is a higher likelihood that graduates will stay.
 - Increase the use of internships and co-op programs, particularly with in region/state -based companies.
 - Help regional companies get a "first look" at graduates via job fairs or web-based services.
 - Provide financial incentives like loan forgiveness for those who stay in Hampton Roads.

Goal 4: Coordinate workforce development planning with regional economic development strategies, i.e., Vision Hampton Roads, Hampton Roads Modeling and Simulation Strategy 2020 and the Hampton Roads Economic Development Alliance

- Strategy 1: Act as lead organization for Intellectual and Human Capital goals in regional economic development plan
- Strategy 2: Sponsor two events a year to develop awareness, foster dialogue and promote an understanding that both fosters innovation and promotes entrepreneurial talent/activity

- Strategy 3: Drive job creation in green/energy, modeling and simulation, sensors, bio-science, and expansion of federal research and laboratories through grant efforts to expand educational offerings and career education
- Strategy 4: Recognize companies that foster innovation and promote entrepreneurship
- Strategy 5: Collaborate with Innovate!Hampton Roads to guarantee that the system requirements for entrepreneurship (financing, effective networks and infrastructure and institutional support) are in place or underdevelopment