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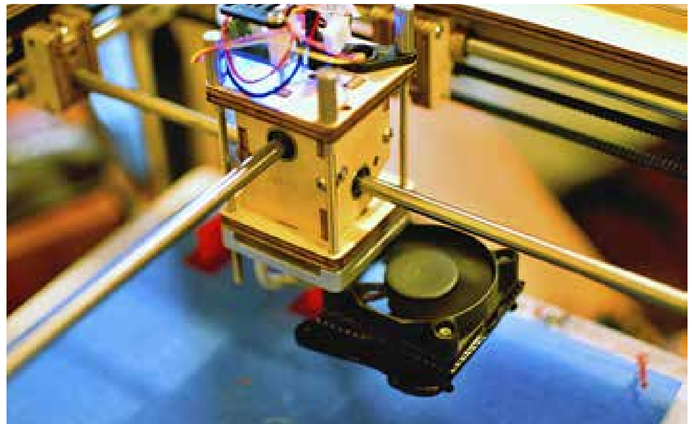

SHOHREH A. KAYNAMA, PH.D., The George Washington University, 1991, is the Dean of the College of Business and Economics and Professor of Marketing at Towson University. Her research interests include services marketing, e-Commerce/e-Business solutions, marketing research, international marketing, and decision support systems in marketing. Her work has been published extensively in many credible journals (nationally and internationally). She was named one of the 2005 Top 100 Women in Maryland by *The Daily Record* and is an honored member of Empire "Who's Who of Women in Education." In addition, she is a member of Network 2000 and serves on the boards of SBRC, the Academy of Finance (NAF), Baltimore County Chamber of Commerce, Better Business Bureau of Greater Maryland, Maryland Council on Economic Education, and the Towson University Foundation.

Message from the Dean

Towson University College of Business and Economics

Dear Colleagues and Friends,

I'm delighted to share with you the sixth issue of the *Baltimore Business Review – A Maryland Journal*. This ongoing collaboration between the faculty of the College of Business and Economics at Towson University and our partners at the Baltimore CFA Society demonstrates the college's continued effort to remain relevant to practice, impactful to regional policy, and integral to the local business community. Year after year, the *Baltimore Business Review* has continued to earn positive feedback, which reflects positively on the vibrant academic and professional activities of our faculty.

This issue covers a variety of topics including the role of non-profit and sustainable businesses in Maryland, the changing nature of income inequality and access to affordable housing, and the impact of financial innovation from exchange-traded funds and investment in private equity buyouts. This breadth of considerations reflects the range of expertise our partnership provides the area and mirrors the mission of the College of Business and Economics to connect theory to practice in curricular, extra-curricular and research activities.

I would like to express my considerable appreciation to all contributors to this issue of the *Baltimore Business Review*. It is their generous contributions of time and effort that made this issue possible. As always, we welcome your feedback and impressions of this publication as well as ideas for contributions.

Best regards,

Shohreh A. Kaynama, Ph.D.
Dean, College of Business and Economics

Message from the President

www.baltimorecfasociety.org

Dear Colleagues and Friends,

We at the CFA Society Baltimore are happy to present this year's edition of the Baltimore Business Review in partnership with the Towson University College of Business and Economics. First, I'd like to thank the contributors. Additionally, a great deal of credit for this publication goes to Farhan Mustafa and Niall O'Malley of the CFA Society Baltimore, as well as Rick Pallansch and Chris Komisar of Towson University Creative Services for their generous support. This is our sixth edition of the Baltimore Business Review, and we can only hope that this partnership continues to strengthen in coming years.

In this publication you will find a variety of articles written by both Society members and Towson University students. We discuss the progress of the CFA Society Baltimore, which expands upon the foundation built by many who have served with the CFA Society over the years. One article addresses the questions and concerns with evaluating private equity buyout investment opportunities. The third article details the expectations and limitation of investing in ETFs. Another article dives into the outsized growth in the rental market in Maryland and the drivers behind it. Two articles address the productivity of various types of corporations in Maryland, Non-profits and Benefits Corporations and B Corps in Maryland. Additional articles dive into technology adoption in Maryland healthcare, an update from the Towson University Investment Group on the Towson Index, and Maryland as a 3-D printing hub.

The CFA Society Baltimore continues to provide a variety of services to its members. Not the least of which are the luncheons featuring renowned speakers on a variety of investment topics. Our membership represents a diverse cross section of local investment firms, commercial banks, educational institutions, and government agencies. We continue to look for ways to broaden our reach. We welcome anyone interested in the Society to join us for one of our monthly luncheons.

Please enjoy this excellent publication. As always, we look forward to hearing any feedback you might have.

Erica Niemann, CFA
President, CFA Society Baltimore

ERICA D. NIEMANN, CFA, is an Analyst at Lane Five Capital Management, a long-biased, concentrated valuation-driven hedge fund based in Towson, MD. Erica joined Lane Five in 2007 and has covered various industries including retail, industrials, media, payment processing, education, automotive and travel. While Lane Five primarily invests in equities, the fundamental research process has spurred investments in high yield bonds and options strategies as well. Prior to joining Lane Five, she was an Associate Analyst in the Equity and Capital Markets Research Group of Mercantile Capital Advisors (now PNC Advisors). Erica graduated from Loyola College in Maryland in 2005 with a double major in Finance and Economics, and received her CFA designation in 2010.

Maryland's Rental Housing Market Has Been Impacted by Financial Realities and Demographic Shifts

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The Financial Crisis of 2008 has brought increased attention to the importance of rental housing as a key component of the nation's housing stock. The share of renter households grew from 32.7% in 2006 to 36.1% in 2012, increasing the total number of renters to an estimated 42 million across the country. In Maryland, approximately 724,000 renter households occupied more than one third of all housing units in 2012, up almost three percentage points since 2006.

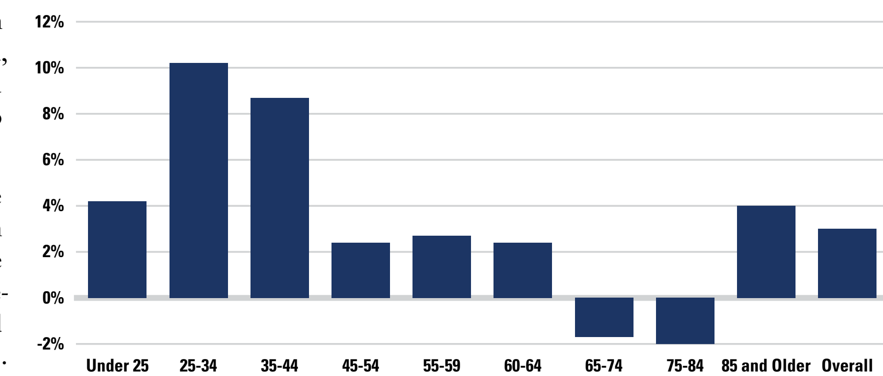
The upward trend in renting was due, in part, to the domino effect of the housing market's steep decline in 2007 and the ensuing foreclosure crisis, resulting in the Financial Crisis of 2008, which displaced many homeowners. Consistent with the national trend, Maryland saw its homeownership rate decline to 66.9% in 2013.

Younger Age Groups Choose to Rent

In addition to the impacts of the foreclosure crisis and the Financial Crisis of 2008, declining home values, tighter credit, and the need for greater mobility have encouraged many households to consider renting as their preferred housing choice (Exhibit 1). The share of renter households in all occupied housing units grew among most age groups during the 2006 to 2012 period. But the Millennial Generation, or households in the 25 to 34 age group, posted the largest gains. The share of renter households among the Millennial Generation grew by 10.2%, more than triple the 3% overall growth rate for all age groups. There are financial as well as lifestyle factors at play here. While U.S. labor market conditions are improving, the rate of unemployment for the 25- to 34-year-olds remains above the national average,[1] so the job market continues to be challenging for this cohort. Combined with lackluster wage growth, a sharp increase in student debt, as well as a cumbersome mortgage application process, it is unsurprising that Millennials are avoiding taking on additional debt and choosing the flexibility and freedom that comes with renting.

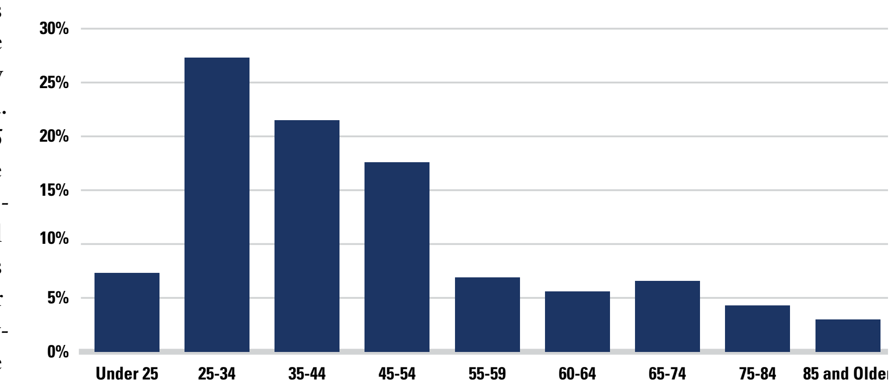
The second largest increase in share was among households in the 35 to 44 age group, up by 8.7%. As expected, the share of renter households among families in the 65 to 84 age group declined by 3.7% reflecting the popularity of ownership among elderly households. However, the share grew by 4% in the 85 and older age group, showing the transition to rental and assisted living arrangements.

Figure 1. Rental housing grew substantially among millennial age groups in Maryland as shown by the percentage point change in the share of renter households 2006-2012



SOURCE: American Community Survey (U.S. Census Bureau)

Figure 2. In 2012 Marylanders in the 25-54 age group made up more than 65% of all renters



SOURCE: American Community Survey (U.S. Census Bureau)

When looking at the distribution of age groups of all renters in Maryland, the Millennial Generation accounted for 27.3% of all renter households in 2012, by far the largest share. Households in the 35 to 44 age group represented the second largest share (21.5%), followed by those in the 45 to 54 age group (17.6%). Together, households in the 25 to 54 age group accounted for 66.4% of all renter families in Maryland. Exhibit 2 shows the distribution of Maryland renter households by age group in 2012.

Renters Spend More of Their Income on Housing than Homeowners

Recent growth in rental housing demand has caused the state's rental housing vacancy rate to dramatically decline from a historic high of 11.4% in 2007 to a nine year low of 8.6% in 2013. As a result, rental housing costs have escalated substantially in recent years. In 2012, housing costs accounted for 32.9% of the median renter income compared to only 22.1% of the family income of a homeowner. The increase in rental housing costs in 2012 from just five years previous (2007) was 3.4%, compared to only 0.80% increase for homeowners.

Some Maryland Counties Suffer from More Rental Shortage than Others

According to the 2006-10 American Community Survey data by HUD, known as Comprehensive Housing Affordability Strategy or CHAS data, for every 100 Maryland renter households at 30% of Area Median Income ("AMI"), there are only 38 housing units affordable and available to them. This results in a shortage of 62 affordable and available units per 100 renter households in this income group. The number of affordable and available units per 100 renter households increases to 67 for families at 50% of AMI threshold, and to 97 for those at 80% of AMI. Therefore, the shortage of affordable and available rental housing units has become more concentrated among the low-income renter households despite improvements in income and housing conditions across a broad range of income groups in the past decade.

Table 1. Shortage of Affordable Housing Units Available to Maryland Renter Households by Income Threshold: 2006-2010

Jurisdiction	30% AMI	50% AMI	80% AMI
Allegany	1,313	141	-292
Anne Arundel	4,414	7,667	4,566
Baltimore	15,748	18,257	1,658
Baltimore City	24,069	14,301	-5,461
Calvert	795	875	342
Caroline	418	258	-37
Carroll	1,631	1,453	-124
Cecil	1,617	1,203	-109
Charles	1,084	861	470
Dorchester	797	332	-53
Frederick	2,352	2,095	366
Garrett	161	-287	-472
Harford	2,299	1,987	-678
Howard	2,631	4,061	2,554
Kent	175	-45	-344
Montgomery	15,744	23,551	15,388
Prince George's	16,526	14,648	1,355
Queen Anne's	195	146	86
Somerset	515	91	-252
St. Mary's	1,437	757	-219
Talbot	355	377	-24
Washington	2,669	1,492	-978
Wicomico	2,096	1,897	-183
Worcester	-744	-3,672	-6,368
Statewide	**98,297**	**92,446**	**11,191**

Source: 2010 CHAS data based on a special tabulation of 2006-2010 American Community Survey data; and DHCD, Office of Policy, Planning and Research

Overall, the shortage of affordable rental housing units available to Maryland families at 30% of AMI is 98,297 units. The shortage declines to 92,446 units as income threshold rises to 50% of AMI and to 11,191 units at 80% of AMI. The shortage of affordable and available rental units at various income thresholds by jurisdiction is shown in Exhibit 3. Negative numbers in the chart indicate an excess of rental housing.

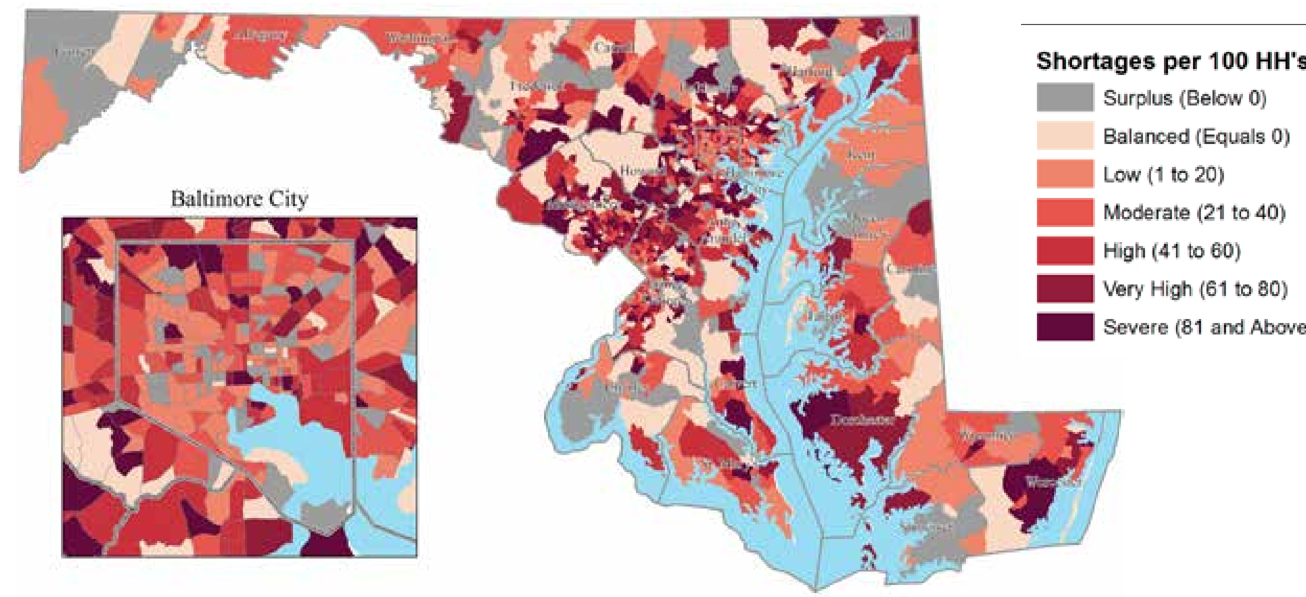
From the CHAS data, the shortage of affordable rental housing units available to families at 30% of AMI is 24,069 units in Baltimore City, representing the largest shortage among all Maryland jurisdictions. Prince George's County with 16,526 units represented the second highest disparity in this income group followed by Baltimore County with 15,748 units and Montgomery County with 15,744 units.

At the 50% AMI threshold, Montgomery County has the highest shortage of affordable and available rental housing units at 23,551 units. Baltimore County (18,257 units), Prince George's County (14,648 units) and Baltimore City (14,301 units) round up the top four jurisdictions in this income threshold.

Finally, statewide, the highest amount of shortage of affordable rental housing units available to families at 80% of AMI is 15,388 units in Montgomery County. Anne Arundel County (4,566 units), Howard County (2,554 units) and Baltimore County (1,658 units) represent the second, third and fourth largest concentration of the affordable rental housing shortage in this income group.

These numbers represent significant improvement in the supply of affordable rental housing as Maryland's Department of Housing and Community Development continues to work closely with local housing agencies to address the shortage using the agency's innovative funding sources and programs.

Figure 3. Shortage of affordable rental housing units per 100 renter households for families earning up to 50% of area median income



SOURCE: 2010 CHAS data based on a special tabulation of 2006-2010 American Community Survey data and DHCD, Office of Policy, Planning and Research

Rental Housing Works – Producing Affordable Housing at Record Pace

Rental Housing Works, Maryland's initiative to address the critical shortage of affordable rental housing while creating jobs, is contributing to a record level of production. Since 2012, The State of Maryland has appropriated more than $62.2 million for the initiative. These resources are helping facilitate record production of affordable rental housing, with a current pipeline of nearly 5,000 units and the creation and preservation of more than 6,000 jobs.

Rental Housing Works provides gap funding for affordable rental housing properties financed through Maryland's Department of Housing and Community Development's 9% Low Income Housing Tax Credits and 4% tax exempt bonds. The federal Low Income Housing Tax Credit program was created to encourage private sector investment in the construction and rehabilitation of housing for low- and moderate-income families. States receive an annual allocation of Low Income Housing Tax Credits. The 4% bonds are not restricted.

A Balanced Housing Policy

Expanding rental housing is part of Maryland's balanced approach to housing policy. Maryland has been a national leader in its response to the foreclosure crisis, enacting comprehensive reforms that preserved homeownership for thousands of homeowners, helping to stabilize the Maryland housing market. The state provided new resources to help make homeownership more affordable to moderate-income families, particularly first-time homebuyers, by offering competitive rates and significant down payment assistance through the Maryland Mortgage Program (mmp.maryland.gov).

At the same time, housing officials recognize homeownership may not be for everyone. The steep decline of the housing market in 2007 followed by a wave of foreclosures displaced tens of thousands of homeowners nationwide. The economic upheaval of the Financial Crisis of 2008 further fueled the increase in renter households and a decrease in homeowners across the country.

Evidence of the Affordable Housing Building Boom

Maryland's Department of Housing and Community Development has worked to facilitate a threefold increase the production of affordable housing units in Maryland in the last three years. As an example, this summer the Lansdowne community celebrated the grand opening of The Greens at English Consul, a $14.6 million project that added 90 new affordable

References

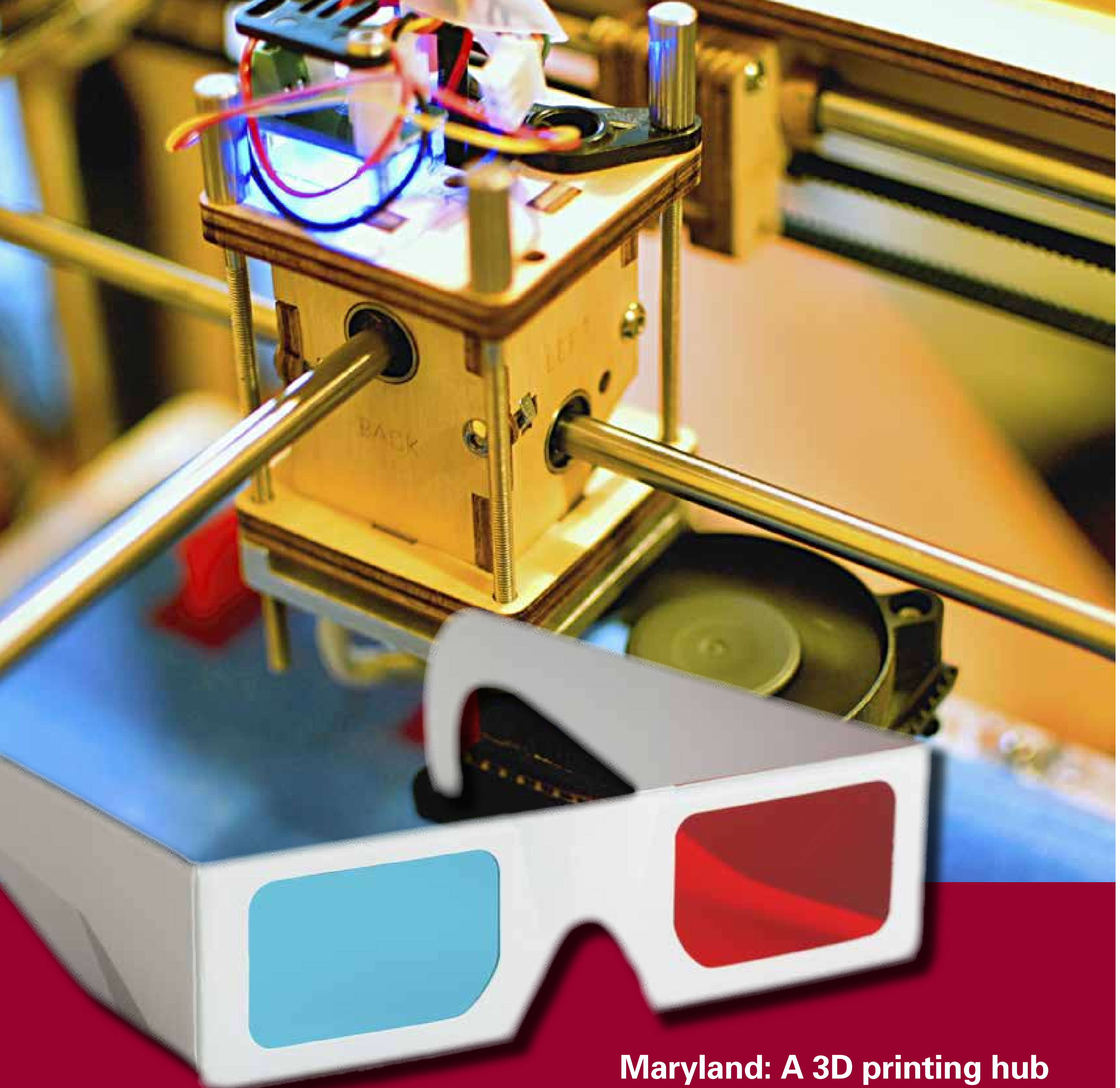
[1]Bureau of Labor Statistics. Table A-10. Unemployment rates by age, sex, and marital status, seasonally adjusted. http://www.bls.gov/web/empsit/cpseea10.htm. Accessed on November 10, 2014.

rental housing units for senior citizens. Baltimore City heralded the grand opening of the Columbus School Apartments in Clifton Park, the $13 million conversion of a 122-year-old school building into 50 modern work force housing units for city families; and Montgomery County officials held a ribbon-cutting for the Tanglewood Apartments and a groundbreaking for the Bonifant at Silver Spring.

Conclusion

Maryland's rental housing market has been undergoing a boom in the aftermath of the Financial Crisis of 2008. This trend is most pronounced in the Millennial Generation. Despite the increased demand for rental housing, Maryland counties face significant shortage of rental housing, especially in Baltimore City. Maryland's Department of Housing and Community Development continues to work with local housing agencies to address this shortage using innovative funding sources and program, such as the Rental Housing Works program.

Maryland Department of Housing and Community Development (DHCD) works with private and public sector partners to finance housing and community revitalization. DHCD's vision is to ensure all Marylanders have the opportunity to live and prosper in affordable, desirable, secure housing in thriving communities. DHCD manages over $3.0 Billion in multi and single family assets.



Maryland: A 3D printing hub

Jan Baum

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3D printing and additive manufacturing [3DP/AM], and the concomitant technologies of 3D scanning and 3D computer aided design, applied across industries and sectors, are consistently ranked among the top strategic technologies. In recent years, Maryland has strived to become a hub for 3DP/AM in the mid-Atlantic region (Andrew Zaleski, 2014), relying on many unique assets and resources such as a rapid technology ecosystem, a high concentration of federal labs, an engaged educational system, and a vibrant innovation and entrepreneurial ecosystem.

Industry Trends

The 3DP/AM industry started about 30 years ago. While it took the industry twenty years to reach to the size of $1 billion, it only took additional six years to double the market size. The average growth rate is 26.4% with a recent peak of 34% in 2013. The market size is expected to reach $13 billion by 2020 with the 30% growth rate over the next few years [Morgan Stanley, 2014]. The initial industries to adopt 3DP/AM were aerospace, automotive, and medical. Data in 2013 show that "Industrial/business machines is the leading industrial sector… nudging past consumer products/electronics which was the leading sector for the previous eight years." [Wohlers Report 2014].

3DP/AM are paradigm shifting and game changing technologies in producing high value parts which are usually required in low volume. 3DP/AM allows products to be delivered to the market faster and cheaper with optimized design prior to commercialization. 3DP/AM realizes increased efficiencies on the production floor through the use of one-off, customized tooling, jigs, and fixtures, and empowers employees to identify and resolve inefficiencies resulting in continuous improvement. It allows for complex physical geometry not otherwise possible turning the Design for Manufacturing maxim on its head: we now Manufacture for Design.

The implementation of 3DP/AM facilitates more problem solving and the growth of an advanced manufacturing knowledge base within any company. 3DP/AM also turns economy of scale upside down: whether you print 1 or 50 the developing cost is the same. The resulting mass customization and small batch manufacturing is transforming traditional manufacturing. Complex geometry may use less material than traditional solid geometry since 3DP/AM only uses the material the part requires. These are just a few of the many competitive advantages 3DP/AM offers. While the technology is revolutionizing some industries such as the hearing aid and dental industries, it is transforming many more industries by democratizing and hybridizing making and manufacturing, increasing global competitiveness, driving revenue and job creations.

Maryland's Successes

A recent survey by the National Association of Manufacturers laid out two categories of manufacturers engaging 3DP/AM: sprinters and sideliners. Maryland has a number of sprinters such as Danko Arlington, a 94-year old family owned traditional foundry that produces cast aluminum parts serving the Department of Defense. The integration of 3DP/AM technologies into existing business models gives business and industry competitive advantages and Danko Arlington credits 3DP/AM technology for an increase in revenue and jobs. In addition, Danko Arlington outsources excess 3D printing work to other local hybrid manufacturers, strengthening the local supply chain and the advanced manufacturing economic base in Maryland. The continued existence of Danko Arlington, as well as the creation of jobs at various skill levels, is attributed in part to its early adoption and integration of 3DP/AM technologies. Dixon Valve & Coupling Company, a global company specializing in manufacturing industrial fittings, located on the eastern shore, purchased 3D printing technology as part of a new innovation center about four years ago; within 18 months the machine had paid for itself. It has been serving all six divisions of the company, and Dixon Valve had created an internal team with rapid technology expertise to serve its global market.

In addition to transforming traditional manufacturing, 3DP/AM also helps the development of new manufacturing firms such as UAV Solutions, established in 2006 in Maryland as a hybrid manufacturer with two employees. Today UAV Solutions has sixty three employees and six industrial grade 3D printers that run 24/7. UAV Solutions is a leader in the manufacturing, testing and design of unmanned systems and uses rapid manufacturing to satisfy demand.

The emerging 3DP/AM industry is rife with opportunity to strengthen the local and national supply chain. One of the differentiating aspects of 3D printing is producing parts in either plastics or metals. In all aspects of 3D printing- the machine, the material, etc., the cost differential between printing in plastic and printing in metal is significant. RePliForm Inc. is a small business with core competency in traditional metal coatings. Over the years RePliForm has developed expertise in successfully coating 3D printed parts extending the material range of parts 3D printed in an array of plastics. RePliForm offers these solutions to global companies worldwide.

Maryland has a strong install base of 3DP/AM equipment across sectors, and each machine requires high skilled, middle skilled, and low skilled workers. The demand for 3DP/AM trained and skilled workers is increasing in Maryland.

Maryland is deeply invested in research and development spanning private companies research, federal labs and world-class institutions of higher education. Each of these sectors is highly engaged with 3DP/AM at the highest levels. Potomac Photonics, a leader in microfabrication for over 30 years and located at the UMBC Research and Technology Park, forges an important relationship between private industry and higher education. With a focus on delivering innovative solutions for their customers, 3D printing is one of the eleven micro-machining technologies they rely on. The various institutions within The Johns Hopkins University system are well engaged with 3DP/AM from engineering and biomedical programs to the Fast Forward incubator and medical institutions. The use of 3DP/AM in pre-operation planning reduces the amount of time the patient is under anesthesia and the surgical team to perform the surgery thus increasing operating room efficiencies.

Through a connected rapid technology ecosystem, Maryland businesses access high level research and technology for commercialization. Technology Assessment and Transfer [TA&T], a research and development company in Annapolis specializing in advanced ceramics, ceramic composites, and ceramic coatings, has developed ceramic materials and ceramic processing for 3D printing technical ceramic components supplying technology and parts to some of the world's largest manufacturers. TA&T recently was awarded an SBIR contract to develop 3D printed ceramic molds for investment casting of turbine engine components for the aerospace industry.

3DP/AM helps new businesses and startups too by equipping them with a full suite of additive manufacturing capabilities. Alio Designs, a rapid prototyping company was founded to provide innovative solutions to large companies. Early in 2014, Next Line Manufacturing, a 3DP/AM and machining service bureau, opened its door in Gaithersburg to bring significant private investment funds to Maryland. In addition to providing an access point for regional businesses to access these competitive technologies, it also helps to further establish a 3DP/AM industrial knowledge base and create new advanced manufacturing jobs.

Innovation and entrepreneurship is the backbone of the American economy. Maryland has three companies that are manufacturing 3D printers: Elite Imageworks, Jimmi Research, and M3D. M3D, is by far producing the largest volume, raising $3.4 million and creating 30 new jobs in Maryland. 3D Print Factory, in Hancock, Maryland, was started about a year ago with expected sales of $6 million.

Maryland's Engagement

Maryland's level of engagement with advanced manufacturing technologies is significant. An online interactive map of Maryland's Rapid Technology Ecosystem [www.3DMaryland.org] identifies a variety of entities engaged with 3DP/AM technologies: business and industry, service providers, federal labs, educational institutions, and maker spaces. At its inception in 2013, the map identified 70 entities using the technologies, while today the map identifies 140 users. Note that this number may be underestimated because some Maryland companies view their use of 3DP/AM as a competitive advantage and therefore choose not to be listed on the map.

In addition to the number of existing businesses using 3DP/AM technologies, Maryland has a number of opportunities for business, industry and entrepreneurs to engage these technologies. One of the top barriers to engagement is access to the technology and expert knowledge. 3D Maryland's Innovation + Prototyping Lab was created for this express purpose and CCBC's Fab Lab offers similar opportunities with a different focus and different suite of technologies. Maryland has a strong install base of 3DP/AM equipment across sectors, and each machine requires high skilled, middle skilled, and low skilled workers. The demand for 3DP/AM trained and skilled workers is increasing in Maryland. Maryland has a number of educational institutions which have established digital fabrication/3DP/AM labs and integrated the labs with four year curricula training the future workforce: Object Lab @ Towson University, the Bear Lab at Morgan State University, numerous labs at JHU, The Maryland Institute College of Art, and CCBC, to name a few.

Organizing and building a rapid technology ecosystem of collaborative relationships across sectors and the state strengthens the region by attracting business interest, and positions Maryland as a Mid-Atlantic hub advancing the next generation of manufacturing. Going forward, the main priority remains increasing the awareness of advantages of these technologies and the opportunities therein. It is also important for policy makers to incentivize business and industry to adopt 21st century competitive technologies.

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What are the Limitations and Consequences of ETFs?

Niall H. O'Malley

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Before delving into the limitations and unintended consequences of Exchange-Traded Funds (ETFs) it is important to define an ETF. Where did these investment vehicles originate? How significant are ETFs to investors?

The first Exchange Traded Fund was launched in January 1993 by State Street Global Advisors under the ticker symbol 'SPY'. The ETF was designed to track the value of the S&P 500 Index. It is quoted at 1/10 of the value of the S&P 500. The ETF was marketed as a "spider", shorthand for Standard & Poor's Depository Receipt (SPDR), traded on the New York Stock Exchange.

The popularity of the S&P 500 SPDR led to a family of products. Other fund management companies, such as Barclays – creator of iShares – and Vanguard, followed suit in short order and the universe of ETFs rapidly expanded. The S&P 500 SPDR is still one of the most popular ETFs. Its average volume exceeds 110 million shares on a daily basis, and its assets under management are over $171 billion.[1]

How Significant are Exchange Traded Funds and Related Exchange Traded Products?

As a financial innovation that is approaching its 22nd anniversary, it is fair to say Exchange Traded Funds and the related Exchange Traded Products have been revolutionary. Investors have entrusted over $2 trillion to this financial innovation. ETFs have grown in popularity since they offer investors cost effective diversification to markets, sectors, currencies and commodities. ETFs have evolved into a family of closely related investment vehicles known as Exchange Traded Products (ETPs). ETPs include Exchange Traded Notes, Leveraged ETFs, Inverse ETFs, Exchange Traded Commodity Pools, Exchange Traded Vehicles (ETV) and Active ETFs. The success of ETFs and other Exchange Traded Products is quite striking, especially when one considers the number of companies traded on the New York Stock Exchange and the NASDAQ,6,251[2], compared to the number of global ETFs and ETPs, 5,463. Most ETFs and ETPs are traded in the U.S. There are 1,686 ETFs and ETPs that invest in just U.S. securities and 3,777 that invest in varying levels of international securities. Over 95% of the ETFs and ETPs are passively managed. Once the exchange traded basket is established the composition of the ETP is on autopilot, i.e. it is not actively managed.

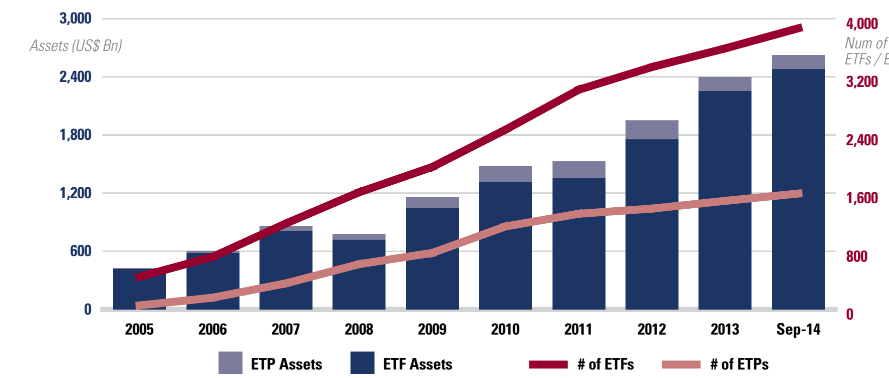
Note: Exchange Traded Products is often used as an umbrella term. In the chart above Exchange Traded Funds growth is detailed in the top line and growth in other exchange traded structures is detailed in the bottom line.

What Are Some of the Benefits of ETFs?

Cost Effective Diversification

The primary strength of Exchange Traded Funds is the cost effective passive diversification they offer an investor. As an example, exposure to the S&P 500 Index

Figure 1. Global ETF and ETP Growth



Source: http://www.etfgi.com/index/cookie

can be gained through the purchase on one share of the S&P 500 SPDR ETF rather than purchasing 500 separate securities. The expense ratio for the S&P 500 SPDR is 0.09% which is very low. The average institutional ETF expense ratio is 0.562%. ETF holdings vary widely from less than 10 securities to over 16,000 securities. An ETF, like a mutual fund, pools the assets of multiple investors; however, ETFs tend to be significantly less expensive and offer instantaneous pricing information during the trading day rather than once daily pricing as is the case with mutual funds. Each share in an ETF represents an undivided interest in the underlying securities less the expense ratio. To understand the pricing variations, an investor has to factor in the type of ETF. An additional consideration with mutual funds is the share class and whether a sales fee is taken. When considering mutual funds, the investor also needs to factor in the fee structure. The table below provides insight into the expense ratio variations in open end funds. Both mutual funds and ETFs are considered open-end funds, i.e. there is not limitation on the number of shares that they can issued. You will notice in the table below that passive ETFs do not have mutual fund sales commissions referred to as front-end load/ No load and back-end load/ level load.

Deep Liquidity for Popular ETFs

The larger ETFs offer deep liquidity, e.g. the iShares MSCI Emerging Markets ETF – founded by Barclays and now managed by BlackRock – has an average daily volume that exceeds 60 million shares and assets under management exceed $36 billion. However, not all ETFs are highly liquid. In fact, liquidity varies widely among ETFs. Important liquidity considerations are

Table 1. 2014 Lipper's Quick Reference to Open End Fund Expenses

All 2013 Total Expense Ratios	FRONT-END LOAD / NO-LOAD Asset-Weighted Average	FRONT-END LOAD / NO-LOAD Average	BACK-END LOAD / LEVEL-LOAD Asset-Weighted Average	BACK-END LOAD / LEVEL-LOAD Average	INSTITUTIONAL Asset-Weighted Average	INSTITUTIONAL Average
ACTIVELY MANAGED FUNDS						
ALL ACTIVELY MANAGED FUNDS	**0.709**	**1.104**	**1.091**	**1.765**	**0.499**	**0.904**
ALL EQUITY	0.846	1.294	1.677	2.028	0.82	1.105
ALL US DIVERSIFIED EQUITY (USDE)	**0.832**	**1.204**	**1.654**	**1.937**	**0.743**	**1.033**
Large-Cap	0.732	1.083	1.54	1.837	0.673	0.943
Multi-Cap	0.872	1.222	1.798	1.936	0.716	0.985
Mid-Cap	0.977	1.254	1.778	1.996	0.867	1.085
Small-Cap	1.069	1.307	1.712	2.051	0.923	1.168
BALANCED/MIXED EQUITY	**0.676**	**1.141**	**1.57**	**1.856**	**0.745**	**0.95**
OTHER DOMESTIC EQUITY	**0.931**	**1.536**	**1.739**	**2.116**	**1.026**	**1.293**
Alternative	1.421	1.74	1.928	2.28	1.238	1.49
Equity Income	0.805	1.138	1.641	1.832	0.756	0.97
Specialty Diversified	1.78	1.756	2.493	2.413	1.379	1.311
SECTOR EQUITY	**0.882**	**1.317**	**1.935**	**2.125**	**0.831**	**1.157**
ALL WORLD EQUITY	**1.003**	**1.427**	**1.884**	**2.185**	**0.906**	**1.213**
Global	0.991	1.366	1.799	2.099	0.856	1.185
International	0.932	1.35	1.845	2.137	0.829	1.137
Precious Metals	0.967	1.351	1.946	1.971	1.013	1.012
Other World Equity	1.283	1.592	2.144	2.35	1.101	1.378
ALL FIXED INCOME	0.482	0.741	0.71	1.335	0.304	0.561
ALL TAXABLE FIXED INCOME	**0.654**	**0.894**	**1.508**	**1.62**	**0.543**	**0.757**
ALL DOMESTIC TAXABLE FIXED INCOME	0.625	0.86	1.513	1.588	0.519	0.726
Short/Intermediate Taxable Fixed Income	0.553	0.746	1.409	1.436	0.46	0.634
Long Taxable Fixed Income	0.695	0.947	1.595	1.692	0.629	0.822
WORLD TAXABLE FIXED INCOME	0.929	1.074	1.47	1.805	0.69	0.914
ALL MONEY MARKET	**0.194**	**0.182**	**0.19**	**0.186**	**0.146**	**0.162**
Taxable Money Market	0.204	0.181	0.193	0.187	0.144	0.157
Tax Exempt Money Market	0.162	0.185	0.168	0.183	0.178	0.18
ALL MUNICIPAL DEBT	**0.523**	**0.732**	**1.341**	**1.459**	**0.513**	**0.571**
Short/Intermediate Municipal Debt	0.402	0.675	1.308	1.404	0.481	0.528
Long Municipal Debt	0.604	0.76	1.355	1.479	0.565	0.599
INDEXED FUNDS						
ALL INDEXED FUNDS—INCLUDES ETFs	**0.161**	**0.833**	**1.641**	**1.964**	**0.249**	**0.530**
ALL EQUITY	0.166	0.869	1.631	1.972	0.256	0.563
ALL US DIVERSIFIED EQUITY (USDE)	**0.167**	**0.758**	**1.782**	**1.791**	**0.164**	**0.396**
Large-Cap	0.362	0.813	2.183	2.021	0.187	0.358
Multi-Cap	0.122	0.895	1.267	1.66	0.102	0.468
Mid-Cap	0.191	0.559	1.417	1.798	0.156	0.366
Small-Cap	0.198	0.721	1.234	1.713	0.235	0.399
BALANCED/MIXED EQUITY	**0.272**	**0.71**	**1.818**	**1.776**	**0.353**	**0.457**
ALL OTHER DOMESTIC EQUITY	**0.135**	**1.2**	**1.386**	**2.14**	**0.149**	**0.77**
S&P 500 Index	0.117	0.437	1.069	1.236	0.079	0.399
SECTOR EQUITY	**0.24**	**0.414**	**1.916**	**1.998**	**0.37**	**0.613**
ALL WORLD EQUITY	**0.209**	**0.748**	**1.587**	**1.798**	**0.405**	**0.562**
ALL FIXED INCOME	0.135	0.573	1.748	1.889	0.216	0.364
ALL (PASSIVE) ETFs	---	---	---	---	0.288	0.561
ETFs - USDE	---	---	---	---	0.182	0.348
ETFs - Sector Equity	---	---	---	---	0.377	0.618
ETFs - World Equity	---	---	---	---	0.402	0.566
ETFs - Other Equity	---	---	---	---	0.198	0.845
ETFs - Fixed Income	---	---	---	---	0.273	0.39
ALL (ACTIVE) ETFs	**---**	**---**	**---**	**---**	**0.618**	**0.743**
ETFs - Equity	---	---	---	---	1.483	1.188
ETFs - Fixed Income	---	---	---	---	0.511	0.54
ALL FUNDS—ACTIVE & INDEXED	**0.638**	**1.087**	**1.095**	**1.775**	**0.422**	**0.841**

Source: Peter De Sousa Barrote, Fiduciary Services Specialist, Lipper http://www.lipperweb.com/Research/Fiduciary.aspx

the average trading volume, assets under management, plus the strength of the counterparties – authorized participants – that create and redeem the ETF shares. Another consideration is the complexity of the ETF in terms of the number of securities held. Each security is dependent on a functioning market for price discovery which can be interrupted by trading halts and "flash crashes".

New Investment Approaches

Investors, both individual and institutional, can use ETFs to gain rapid, cost effective diversification to markets, sectors and various strategies, e.g. growth and/or value. The explosion of the ETF universe has expanded the toolset available to investors. A popular investment approach is a combination of active and passive investing. Investors may also take an active management approach incorporating individual securities or actively managed funds. This is referred to as "seeking alpha". The investor is seeking a return above the market return represented by market indexes. Some investors prefer to pursue a purely passive approach with ETFs and ETPs which limits down side risk offering a weighted average return.

What are Some Limitations and Unintended Consequences of ETFs?

Short-term Trading, Taxes and Lower Realized Price

Perhaps the biggest ETF limitation is behavioral. ETFs are credited with being less work. All an investor has to do is buy the basket of securities represented by an ETF and the benefits of diversification are gained. While it is true that ETF investing involves less work, it creates an unintended consequence of creating less conviction in the face of adversity – a market selloff. This increases the chance that the investor will become more reactive and short-term oriented. For taxable investors, this introduces the higher short-term capital gains rate. It is important to note that taxes are not the only cost. A potentially even greater cost is incurred when an investor sells during a market selloff and realizes a loss.

Performance Limitation – The Best Return is an Average/Weighted Average Return

If you had a child, would you encourage them to get Cs in school? The frequent encouragement from parents is to seek As and Bs. Why does the same rule not apply to your investments? How often does an index double? The answer is not that often. When an investor invests in an ETF, it is important to realize that they are electing to receive an average return for the invested amount. An average grade in school is a C. The return of an ETF is the weighted average of the underlying securities less the expense ratio. In short, while the ETF assets benefit from diversification there is a performance limitation.

A Less Transparent Issue – Tracking Error & Counterparty Risk

An ETF's market price can trade at a premium or a discount to the value of its underlying securities. Wider bid/ask spreads occur when an ETF or security is thinly traded which creates additional investment costs. The creation and redemption of ETF units is dependent on counter parties that are referred to as authorized participants. An ETF fund manager enters into contractual relationships with one or more authorized participants. Authorized participants create ETF fund shares in large increments – typically 50,000 fund shares. The authorized participant or participants seek to minimize pricing differences between the market value of underlying ETF securities and the net asset value of the ETF. Authorized participants seek to arbitrage the pricing differences but are dependent on functioning markets and stability of their broker dealer operations. Flash crashes and other market disruptions associated with high frequency trading arbitrage can create tracking error.

Structure Risk

As the popularity of ETFs has grown, it has given way to an alphabet soup of Exchange Traded Products which include alternative ETFs, Exchange Traded Notes (ETNs), alternative ETFs, exchange traded vehicles (ETVs), exchange traded commodities or currencies (ETCs), and other types of structures. It is important to note that the product structures of the newer ETPs in turn create unique risks for investors.

From a structure and regulatory perspective, ETFs are open-ended investment companies that offer investors an undivided interest in the underlying securities of the fund less expenses. The same is not true with Exchange Traded Notes (ETNs). An an ETN is just a credit obligation from the issuer, i.e. there is no collateral. The credit obligation is only as good as the balance sheet of the issuer. This became a painful lesson for investors in the Lehman Brothers ETN products as they did not own the underlying collateral, and therefore, became unsecured creditors in the Lehman bankruptcy.

Alternative ETFs give investors the potential to invest in investment options that are leveraged and/or inversely correlated to its index benchmark. Typically, alternative ETFs are designed to generate daily returns that are a positive or negative multiple of its benchmark, e.g. stock indexes, currencies and commodities. The math of daily settlements introduces the risk of significant tracking error, and introduces a tax liability that does not exist with traditional ETFs. The primary collateral for alternative ETFs are the derivative contracts and money market instruments used to create the leveraged or inverse exposure.

Local Firm Participation

A Bethesda, Maryland firm, ProShares, is the world's largest provider of leveraged and inverse ETFs. ProShares has grown from one fund in 2006 to over 145 alternative ETFs. Another Bethesda, Maryland, based firm is AdvisorShares which offers 28 actively managed ETFs. Actively managed ETFs were first approved by the Securities and Exchange Commission in 2008. The actively managed ETF adds an active management component to the ETF structure that has otherwise been passively managed. T. Rowe Price has received regulatory approval to issue actively managed ETFs. Legg Mason has also received approval from the Securities and Exchange Commission to begin issuing actively managed ETFs.

Investment Considerations

Before making any investment, it is important to identify your goals and understand the limitations and opportunities associated with the investment you are considering. Do you want the weighted average return? Faced with a market selloff do you have conviction about your investment? Are you familiar with the fund manager? What is the underlying collateral? Exchange Traded Funds and Products have expanded the investable universe for investors. One of the most important benefits that ETFs and ETPs offer is their ability to diversify a portfolio. This is especially true in emerging and developing markets where investment options may not otherwise be accessible. Whether investing in an ETP or a listed company, it is important to research your investment. Due diligence is a key consideration that should not be overlooked whether investing passively, actively or in a blended approach.

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Endnotes

[1] ETF Database Top 100 ETFs by Assets 10/16/14 NYSE 3,296 and NASDAQ 2,955 as of 10/16/14

[2] ETFs 3,868 and 1,595 ETPs

Technology Integration in Healthcare Management

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Technology is transforming how healthcare services are provided. The increased pressure for quality and efficiency have motivated process-oriented improvement. Examples include:

- Using technology for tracking medical equipment
- Logging of services and patient-specific information using barcoding
- Electronic record management
- Pharmaceutical batch tracking
- Supplier inventory tracking
- Tracking healthcare personnel in a facility

(Source: Amber 1996; Barlow 2005)

Patient Tracking in Mass Casualty Events

Large fires, tsunamis, explosions, floods, and hurricanes are all situations where large numbers of casualties may require medical treatment. These events have a high number of victims, communication problems, and there is a disruption of everything that is "normal." The ultimate test for healthcare providers, first responders, and government emergency organizations is to save as many lives as possible.

Operation STAT

Towson University prepares its nursing and healthcare management students by partnering with government bodies like the Maryland Defense Force, local police, local hospitals, and hundreds of volunteers to put on a mass casualty simulation. This simulation, called "Operation STAT," is an annual training event hosted by Towson University's College of Health Professions. The on-campus event is a mass casualty exercise which simulates the campus' response to a large scale catastrophe that creates hundreds of human casualties.

The training component focuses on students in Towson's nursing program but includes students from academic programs across campus. Approximately 60 students participate as care providers, 300 volunteers are victims, and several dozen faculty, staff and administrators oversee the event.

Volunteers take on the role of "victims" and are provided background information, and when necessary have fake wounds applied to present various injuries and medical conditions. The volunteer victims include students from the campus as well as local schools and community groups. Once the volunteers are trained and prepared for participation, they move into a triage and treatment process where nursing students evaluate and treat them individually.

Opportunities for Improvement

The training experience received by the nursing students in previous years was recognized as being very effective and well executed. However, it was evident there was a need for tracking the flow of casualties through the treatment process and collecting data that could be used for future events. This would maximize the use of limited resources and create a process where the highest possible number of victims is treated in the shortest period of time.

This year, Towson University's Supply Chain Management Association (TUSCMA) and Project Management Association (PMA) volunteered their resources to research alternative methods for addressing the issue.

Possible Solutions

After thorough research, the students provided three solutions: manually tracking patient flow, integrating Radio Frequency Identification (RFID) technology, or integrating barcoding technology.

Manual tracking consists of having volunteers use a stopwatch and a tracking sheet to check-in each volunteer patient as they go through each of the areas of the process. Data collected at multiple points in the process would then be collated and analyzed after the event.

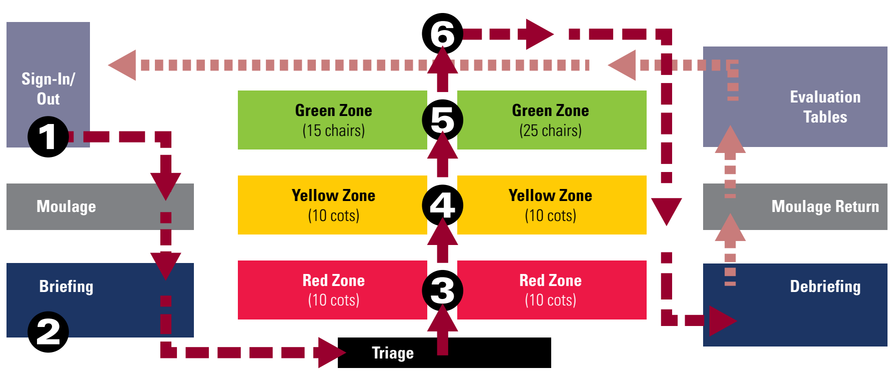
Table 1. Evaluation of Options

	Strengths	Weaknesses
Manual Tracking	-Easy to implement -Inexpensive -Minimal training required	-Labor intensive -Less accurate data -Slower data collection -Significant post-event processing
RFID	-Automated collection -Direct scan is not needed -No disruption in patient flow -Could be used for "active" or "passive" data collection	-Equipment cost (tags and readers) -No unique additional data elements may be added -Not flexible to changing process configuration -Significant implementation overhead (installing reading devices)
Barcoding	-Currently used in mass casualty incidents -Relatively inexpensive -Flexible technology -Minimal disruption in patient flow	-Labor requirement -Brief training required -Some implementation overhead

RFID technology requires distributing unique electronic tags to each volunteer victim. RFID reading devices would be located throughout the treatment area to track victim processing. RFID tags act as intelligent codes that communicate to a networked system which reads every RFID tag that comes through the reading device. RFID could be used in either a passive or active environment (Barlow 2005). Passive RFID tags do not broadcast information but respond when pinged by the reading device. Active devices broadcast their information which is then collected by the reading device. Active devices are often more expensive due to their need for integrated power sources and transmitting capabilities.

Barcoding technology also requires that each victim be assigned a unique identifier. The identifier is a printed barcode which can be distributed on wristbands or small identification cards. Volunteers would be stationed throughout the treatment area to collect patient tracking data using handheld barcode reading devices. These type of readers are best used in Wi-Fi environments so real-time reports can be performed; additionally, the data can be used for post-event analysis in an offline environment (Hamilton 2003).

Figure 1. Process Map



After assessing the three options (Table 1), it was determined that barcoding technology was the most feasible option given the flexibilities it offered with regard to mobility, types of data collected and low cost.

Mobility was important in a situation where a patient is disoriented or their ability to move is limited, they will not be forced to walk through an RFID reader or mistakenly scanned into the incorrect zone. Barcoding with the use of hand scanners allows for the collection of both scanned data and data entered through the handheld device which is well-suited for special event benchmarking data. Towson University partnered with Baltimore technology firm, Barcoding Incorporated, to provide technical support and equipment for the event.

Implementation

To facilitate collecting patient flow data, seven data collection points were identified. Volunteer victims were given a pre-printed paper wristband at sign-in (star 1) where an initial scan was made. The five additional stars show key locations where the victims were scanned as they progressed through the treatment area (Figure 1).

Figure 1 shows each of the locations where patient tracking needed to occur. Volunteer victims would begin at the sign-in area (1) where they would be assigned their "injury scenario card" and also be given their barcoded wrist band. After an initial scan and entry of basic patient data they would move to the briefing room (2) where they would receive a safety briefing and any makeup to simulate wounds (moulage). Victims then proceed to the triage area a nursing student assesses the injuries of each victim and directs them to one of the three designated treatment areas (3-5) based on the description of the injury (as detailed to the victim on the scenario card).

The three treatment areas represent the severity of the injuries. The green treatment area (5) would include staff and supplies to support minor injuries progressing up to the most severe injuries in the red treatment area (3). The victim would then move to the designated treatment area to receive treatment before finally exiting the treatment areas (6) ending the volunteer victim's participation in the exercise.

The handheld barcode scanner captures the location of the scan (1-6), the victim's barcode identification number, and any additional information. Since the handheld device includes a keypad, the scanning volunteer can be prompted to enter any additional information (age, gender, comments, etc.). Capacity was easily adjusted by having multiple scanning volunteers at each of the six scanning locations and moving them based on throughput to ensure that bottlenecks were not created.

Due to the range of injuries and volume of victims, it is possible for patients to be sent to an inappropriate treatment area. Accuracy in triage can be a valuable metric for identifying training and curriculum enhancements. To capture this information, each victim instruction card was pre-identified with the appropriate treatment area. By embedding this information in the barcode, the post-event data could be analyzed to track occurrences where victims were treated in an area other than where their injuries should have taken them.

Additionally, once an initial triage decision was made and the victim was sent to a treatment area, the nursing staff could redirect the victim to a second treatment area. The post-event analysis of the data also identified cases where multiple assignments were made.

Analysis

Post-event analysis of the data provided significant information that helped the research team determine standard processing times (Table 2).

Since data was not collected at prior Operation STAT training events, the information in Table 2 becomes the benchmarks for the major victim processing activities.

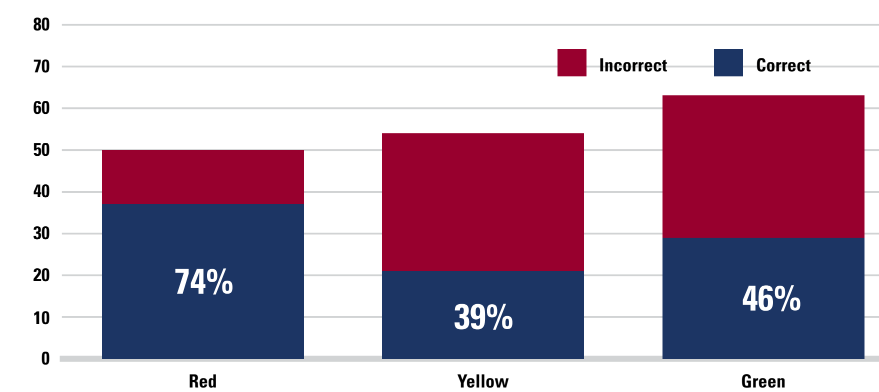
Triage accuracy is the second critical metric (Figure 2). Triage accuracy becomes the filter that determines the patient workload in each of the treatment areas. Not only is triage accuracy critical for resource planning at the treatment areas, but more importantly the victims need to be sent for treatment in an area that has the resources to properly address the injury.

Each of these metrics can be used to inform future training events and curriculum design.

Table 2. Processing Times

Start Location	End Location	Average Process Time	Min. Time	Max. Time	Standard Deviation
Triage	Begin Treatment	0:04:40	0:00:19	0:11:09	0:03:04
Red Treatment	End Treatment	0:16:54	0:05:01	0:30:33	0:10:23
Yellow Treatment	End Treatment	0:12:40	0:01:30	0:23:54	0:05:38
Green Treatment	End Treatment	0:10:24	0:01:13	0:27:19	0:05:41

Figure 2. Triage Accuracy by Treatment Area



As expected, the "red" type injury condition has the highest accuracy rate since it was the condition with the most obvious medical symptoms. "Green" and "yellow" type injury conditions had low triage accuracy rates due to the borderline similarity of the victims' symptoms. The data prompted post-event discussions with the triage staff and the planning committee discovered areas for improvement. Improving triage accuracy will decrease re-triage rates and decrease overall treatment times.

Students and volunteer victims actively engaging in the treatment area.

Continuous Improvement

The first area for improvement is that members understood the training given prior to triage, but not all of them understood the importance of victims being placed in the correct area. Some of the triage staff placed victims based on the availability of treatment resources rather than the severity of the victim's injury.

The second area for improvement was that the predetermined condition codes need to be framed differently so they are more clearly a severity of red, yellow, or green. Reworking the injuries so the condition codes are indisputably red, yellow, or green may be necessary for triage staff to better conceptualize what they would do in an actual incident and improve accuracy.

This application allowed students to participate in experiential learning in an interdisciplinary setting evaluating and implementing supply chain technology as a solution in a fast-paced healthcare environment. For the healthcare instructors, they now have the benefit of metrics that can drive curriculum improvement and process enhancements for future mass casualty training events.

Conclusion

Data was collected as planned in a smooth execution that provided the TUSCMA and EBA students with experience using handheld barcode scanners. The bar-coding technology provided flexibility in data collection for the dynamic event environment. Future events will be evaluated to ensure that the appropriate technology is used.

The post-event analysis provided a rich opportunity for students to use the collected data to calculate valuable measures for both benchmarking and continuous improvement. The healthcare faculty was very pleased with the unobtrusive data collection and the usefulness of the measures for informing future training events and improvements to the curriculum.

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Private Buyout Equity – What Should You Expect from Your Investment Advisor?

Clement K. Miller

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Maryland boasts the headquarters of some sixty private equity firms. Among these are NEA, American Capital, and Cordish. Thousands more are headquartered across the rest of the country. However, many high-net-worth investors, endowments and foundations have only a limited understanding of private equity. If you are seeking to invest in the private equity industry, it is important for your investment advisor to have a sophisticated comprehension of the subject.

What is Buyout Equity?

Private equity is the purchase of equity interests in companies which are not publicly listed. Buyout equity is one of the six main types of private equity. The remaining five are growth capital, venture capital, mezzanine capital, commercial real estate equity, and funds-of-funds.

Usually, the financial press focuses on high-profile "leveraged buyouts", or "LBOs", typically of large publicly-traded companies. However, most private buyout firms do not follow the LBO model. Rather, they acquire small or mid-sized companies which are "fixer-uppers" and then "spruce them up" for resale at a higher value in the future.

A common scenario is one in which a company owner decides to retire and "cash out" of the business he or she has run for decades. It is not uncommon for such long-time owners to have deferred capital improvements, or to have foregone revenue expansion opportunities, for many years.

The buyout firm typically acquires a controlling stake in the company. The firm then installs a member of its investment team as the company's new manager. Often, the firm also brings in an industry or operations expert, who may be on the firm's permanent staff or is a consultant to the firm.

The new manager, advised by the consultant, then takes actions to modernize the firm's operations, with the aim of increasing revenues and decreasing costs. Once the company's profits have substantially improved, the buyout firm then sells the company for a gain, and returns cash to investors.

This is not a quick process. It can often take many years for the acquired company to complete their turnaround and become attractive to potential buyers. Your advisor should inform you that buyout investments are meant only for those investors who are willing to allocate a portion of their portfolios to investments with horizons of a decade or longer.

How Do Buyout Firms Raise Funds?

A buyout firm raises money every few years through a fund which may be open during a window ranging from several months to as long as two years. Your advisor should have access to information databases which identify those buyout firms which are in the process of raising new funds.

The buyout firm is the fund's general partner; the other investors in each fund become limited partners. Once the fund is closed to investors, the buyout firm then begins to acquire companies for the fund's portfolio. A typical buyout fund will invest in only ten to twenty portfolio companies.

Can Your Advisor Help You Access Buyout Funds?

The first thing you need to ask your advisor is whether you are legally qualified to invest in a private equity fund. The SEC requires certain minimum levels of liquid assets and income for personal investors in private equity, as it does with hedge funds.

The second thing you need to ask your advisor is whether there is actually a vehicle that allows you to access a particular buyout fund.

Buyout funds often require large minimum investment amounts from prospective limited partners. Such minimums are usually not a constraint for institutional investors. However, these minimums can be a constraint for personal investors, even for those with a high net worth.

Nevertheless, your advisor may be able to help you invest in a buyout fund through a "feeder fund." Such funds aggregate the capital of many different investors into a pooled vehicle which invests in the buyout fund.

Alternatively, your advisor may be able to help you invest in a buyout firm's prior funds through a purchase of a portion of an existing limited partner's holding. Such a purchase is called a "secondary".

Can Your Advisor Help You Invest in What You Know Best?

You can get a good sense of a buyout firm's investment strategy by looking at the kinds of companies acquired by the fund. While you cannot know in advance which companies a new fund will acquire, your advisor can find out which companies a buyout firm's prior funds have acquired.

You may already have familiarity with some of these companies. Many buyout firms specialize in retail chains, restaurant chains, or office services. Of course, these are exactly the kinds of businesses with which an investor might have direct personal experience. You may already have impressions, positive or negative, regarding their likely prospects.

In particular, your advisor should be aware of the pitfalls of such performance measures. Private equity funds differ from traditional mutual funds for which there are well-established standards for performance measurement.

Additionally, your advisor should also be able to identify those buyout firms that are regional. A firm based in the Baltimore area might invest primarily in companies based in the Mid-Atlantic. In that case, the firm's portfolio might include a greater proportion of companies that would be familiar to a Maryland-based investor.

Is Your Advisor Familiar with the Buyout Firm's Investment Team?

Your advisor should be able to evaluate the strengths and weaknesses of a recommended buyout firm's investment team. Your advisor should have thoroughly read the fund's placement memorandum. He should have required the buyout firm to complete a detailed due diligence questionnaire. Furthermore, your advisor should have interviewed members of the investment team. The following are just a handful of the questions your advisor should be able to discuss with you:

- For how many years has the team been investing?
- Are team members experienced in managing companies?
- How qualified are the operational consultants?
- How many funds has the team raised?
- What proportion of the funds' invested capital was contributed by the firm or team members?
- Is the team appropriately sized for the number of portfolio companies managed?
- Have there been any recent changes in the team's make-up?
- Are any of the team's principals nearing retirement?

Has Your Advisor Checked Whether Limited Partners are Satisfied with the Buyout Firm?

Before recommending a buyout fund, your advisor should have consulted with one or more limited partners in the buyout firm's prior funds. Usually, the buyout firms are able to provide references from existing limited partners; these limited partners may be willing to discuss their views with your advisor.

Each buyout fund will typically have an advisory committee comprised of limited partners. Your advisor should seek to determine whether the limited partners feel that these advisory committees are well functioning, and whether the buyout firm's management takes their views into consideration.

Additionally, your advisor may be able to glean insights from a review of documents posted on-line by government-affiliated limited partners, including state or municipal pension and retirement plans, as well as public universities. Sunshine laws often require government-affiliated investment bodies to post investment presentations on-line.

Can Your Advisor Speak Knowledgeably about Prior Fund Performance?

Many buyout firms proudly point out that some of their prior funds have received a "first quartile" ranking from one of the commercial private-equity information data providers. However, your advisor should not rely just on the buyout firm's use of the "first quartile" label. Your advisor should have a subscription to one of these information providers and be familiar with the various data measures they employ in calculating these performance quartiles.

In particular, your advisor should be aware of the pitfalls of such performance measures. Private equity funds differ from traditional mutual funds for which there are well-established standards for performance measurement. In private equity, the key performance indicators have significant data collection or calculation weaknesses. Your advisor should be able to discuss these data weaknesses with you and whether reliance ought to be placed on the performance quartiles.

Can Your Advisor Discuss the Buyout Firm's Process for Valuing its Portfolio Companies?

One of the key indicators of comparative performance across funds is "multiple-on-invested-capital." This is the ratio of the fund's book value and invested capital. A higher ratio is better.

However, this ratio is reliable only to the extent the company valuations are correct. The problem is that the buyout firms themselves determine the valuations. Given that the buyout firms might be overly optimistic regarding the value-added they are contributing to their portfolio companies, there is a potential for significant upward bias in valuations.

Your advisor should inquire of the "checks and balances" the buyout firm uses to ensure realistic valuations. Does the firm have an internal valuation committee? Does the firm look to the market valuation of similar, though publicly-traded, companies? Does the firm hire external valuation consultants to provide independent appraisals? Does the firm consult with the limited-partner advisory committee regarding the valuations?

Has Your Advisor Evaluated the Buyout Firm's Compliance and Operational Systems?

A final question is whether your advisor has evaluated the buyout firm's compliance and back-office operations systems. At the very least, a buyout firm should have a dedicated Chief Compliance Officer and a dedicated Chief Operations Officer. Compliance and operations questions should be included on the due diligence questionnaire. Ideally, your advisor's compliance and operational staff will have joined the advisor on interviews with the buyout firm's investment team.

Conclusion

There are opportunities for qualified high net worth investors in Maryland to invest in buyout funds that acquire familiar companies. However, investing in buyout funds is not a "do-it-yourself" activity. It is critically important for your investment advisor to have an in-depth and sophisticated comprehension of the subject. He or she should also avail himself of a support system of due-diligence questionnaires, information databases, and compliance and operations personnel.

This article reflects the personal views of the author.

Maryland's Nonprofit Sector: An Unheralded Economic Engine

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Civil society is commonly depicted as comprising three important sectors: Government (Public Sector), Business (Private Sector) and Nonprofit (Voluntary or Independent Sector) (Wymer, Knowles & Gomes, 2006). Although nonprofit organizations (NPOs) have many differences, they share certain common features: they are formally constituted; organizationally separate from government or business; self-governing; non-profit-distributing; voluntary to some significant degree; and of public benefit (Salmon and Achier, 1994; Salmon, 2011).

Why Do Nonprofits Exist?

As Salmon (2011) has noted, "Modern societies, whatever their politics, have found it necessary to make special provisions to protect individuals against the vagaries of economic misfortune, old age, and disability; to secure basic human rights; and to preserve and promote cherished social and cultural values." He further posits that the U.S takes a "mixed economy" approach that blends public and private action and has resulted in a "system [that] is not a system at all, but an ad hoc collection of compromises between the realities of economic necessity and the pressures of political tradition and ideology."

Thus, when we think about NPOs, we may think about the important services or programs that they provide – often for free or low cost. Or we may focus on the underserved communities they serve by stepping in to fill gaps that are not always met by the private or governmental sectors (Philadelphia Foundation, 2014).

Weisbrod (1988) argues that one of the main strengths of private enterprise is its efficiency in meeting consumer demand, but this sector does not tend to respond to the wants or needs of consumers who are unable to pay or where insufficient prospects for profits exist. Government can correct some of the failures of the private market by financing, mandating or providing other incentives that encourage the provision of goods and services that are unprofitable to the private sector. Through taxation or legislation, government can discourage or prohibit the private sector from carrying out activities that may be profitable to a few, but are detrimental to the many. However, government may be limited in its ability to effectively monitor private industry. The nonprofit sector can -- and often does step in as an alternate watchdog and thus augment government efforts. The reliance on the nonprofit sector to provide these goods or services has created another solution – and judging from recent trends one that is taking on far greater importance.

Weisbrod also contends that government has a second drawback because of its reliance on the political process, namely that it is biased to respond to the needs of the majority. Consequently, the majority may not see the need for providing collective goods or services, such as concert halls or shelters for the homeless, to the degree that some in the minority would like to see supplied. Thus nonprofit organizations can be the means by which higher levels of collective goods or services are supplied.

How Does this Relate to Maryland?

This begs the question of just what impact the nonprofit sector has induced in Maryland. In short, the answer is that it is quite substantial, not only from an economic sense, but also in its breadth and synergy with business. Consider these recent statistics:

The nonprofit sector is a major economic force here in Maryland, as it is in the U.S. as a whole. As of 2013, there were over 32,000 NPOs in Maryland, up 8.7% from ten years ago (Urban Institute/National Center for Charitable Statistics, 2014). Among the NPOs in Maryland, nearly 24,000, or 74% were Public Charities, Private Foundations, or other 501(c)3 NPOs, while the remaining organizations were registered under other IRS 501(c) classifications.

Table 1 – Maryland's 501(c)3 Nonprofit Organizations by Service Delivery Area

Type	Count	Percent (%)
Animal	438	1.90
Arts, Culture & Humanities	1,739	7.30
Community Improvement	685	2.90
Crime	755	3.20
Education	2,433	10.30
Environment	646	2.70
Health	1,971	8.30
Human Service	3,914	16.50
Other	11,158	47.00
Total	23,739	100

Source: IRS, September 2012, as reported by Maryland Nonprofits, 2014

Nonprofits comprise a broad swath of service delivery areas (see Table 1). Although human services represent the largest category of organizations overall, sector revenues and assets are concentrated in health and education.

Maryland nonprofits vary considerably by the revenues they generate, as evidenced by the tables below. They range from small all-volunteer organizations that may literally be run out of someone's home to being the

Table 2 – Maryland 501(c)3 Nonprofits by Income Group

Income Group	Count	Percent(%)
< $25,000	15,741	66.30
$25,001-100,000	2,618	11.00
$100,001-250,000	1,673	7.10
$250,001-500,000	936	3.90
$500K-1M	781	3.30
$1-5 million	1,189	5.00
> $5 million	801	3.40
Total	23,739	100

Source: IRS, September 2012, as reported by Maryland Nonprofits, 2014

Table 3 – Maryland's Ten Largest Nonprofit Organizations (by Gross Receipts)

Rank	Organization	Gross Receipts ($ mill)	Total Assets ($ mill)
1	Howard Hughes Medical Institute (Chevy Chase, MD)	37,574	18,1178
2	John Hopkins University N4327b (Baltimore, MD)	7,556	7,815
3	The Johns Hopkins Hospital (Baltimore, MD)	2,352	2,810
4	University of Maryland Medical System Corporation (Baltimore, MD)	1,542	2,519
5	Washington Hospital Center Corporation (Columbia, MD)	1,154	480
6	Sinai Hospital of Baltimore Inc. (Baltimore, MD)	724	672
7	Adventist Healthcare Inc. (Rockville, MD)	642	743
8	Johns Hopkins Bayview Medical Center Inc. (Baltimore, MD)	582	359
9	Anne Arundel Medical Center Inc. (Annapolis, MD)	497	938
10	Franklin Square Hospital Center Inc. (Baltimore, MD)	481	310

Source: Urban Institute/National Center for Charitable Statistics, 2014

largest non-government employer in the state (see Table 2). Among the ten largest nonprofits headquartered in Maryland, nearly all are in the medical field and five have revenues in excess of $ 1 billion (see Table 3).

Nonprofits also represent a significant source of employment, particularly in service jobs. One in every ten workers is employed by a nonprofit. To put this in perspective, Maryland's nonprofit sector is the second largest industry in the state, with 263,373 Marylanders employed, behind retail trade. Moreover, Maryland nonprofit job growth has outpaced the private sector. Maryland's nonprofit sector experienced job growth of 3.7 percent between 2010 and 2012, whereas job growth in the state's for-profit sector was 3.6 percent during the same time period ("Maryland Nonprofit Employment Update," by Johns Hopkins Center for Civil Societies Studies, 2012).

Local Nonprofits supported over $13.5 billion in wages (during 2011) (Maryland Department of Labor Licensing and Regulation, 2007-2011, as reported by Maryland Nonprofits, 2014). But that is only the tip of the iceberg! Maryland NPOs were supported by 1.3 million volunteers, who supplied 193.5 million hours of service (Corporation for National and Community Service, 2010, as reported by Maryland Nonprofits, 2014).

The impact of Maryland-based NPOs is felt both locally and far beyond our state's borders. The forty top Maryland-based foundations collectively provided nearly $650 million in funding grants during 2012, with 21 foundations distributing $5 million or more during that year (The Grantsmanship Center, 2014) (see Table 4).

Conclusions

The statistics reviewed above provide ample evidence of the importance of Maryland's nonprofit sector. Maryland's nonprofit sector is composed of many different types of organizations and is much larger than is commonly believed. Reflecting the wide array of missions that they pursue, NPOs play a significant role in improving the quality of life of Marylanders from the perspective of health, education, social services, the environment, community development, as well as arts, culture and recreation.

As Matt Berg (2014) noted in his recent Borgen Project blog, "It never occurs to many people who are not involved with non-profits how integral these organizations can be to the overall functioning of the economy." He highlights three important reasons:

Nonprofits are a steady source of employment for many in the labor force. Moreover many positions within NPOs require individuals with specialized skills, such as computer programmers, accountants, or graphic designers for their operations, just as in the for-profit and government sectors.

Non-profit organizations, like any other business, consume third-party goods and services in their day-to-day operations, which generates revenue for companies that manufacture and distribute these goods and services and thus providing added economic stimulation.

By providing employees with a source of income, non-profits, just as for-profits, indirectly stimulate other facets of the economy.

These arguments are just as true for Maryland and underscore that the state's economy is greatly enhanced by the size, scope and robustness of the NPO sector.

Table 4 – Maryland's Top Forty Giving Foundations (2012)

FOUNDATION NAME	TOTAL ANNUAL GIVING ($ millions)
The Annie E. Casey Foundation	98
The Harry and Jeanette Weinberg Foundation	94
The Howard Hughes Medical Institute (HHMI)	88
Ellison Medical Foundation	46
Foundation for the National Institutes of Health	34
Eugene B. Casey Foundation	31
The Associated Jewish Community Federation of Baltimore (THE ASSOCIATED)	29
The Sherman Fairchild Foundation, Inc.	19
The J. Willard and Alice S. Marriott Foundation	19
The Baltimore Community Foundation	19
Maryland Legal Services Corporation	18
Jewish Federation of Greater Washington	16
The Abell Foundation, Inc.	12
The Keith Campbell Foundation for the Environment	10
National 4-H Council	9
GEICO Philanthropic Foundation	9
France-Merrick Foundation	9
The Jacob and Hilda Blaustein Foundation, Inc.	7
Lockheed Martin Corporation Foundation	7
Town Creek Foundation, Inc.	6
T. Rowe Price Associates Foundation, Inc.	6
The Community Foundation of Frederick County, Inc.	5
Community Foundation of the Eastern Shore, Inc.	5
Constellation Energy Group Foundation, Inc.	4
The Nasdaq Stock Market Educational Foundation, Inc.	4
Clark-Winchcole Foundation	4
Chesapeake Bay Trust	4
John W. Kluge Foundation	4
Calvert Foundation	4
Marpat Foundation, Inc.	4
The James M. Johnston Trust for Charitable and Educational Purposes	3
Goldseker Foundation	3
The Morton K. and Jane Blaustein Foundation, Inc.	3
The Aaron Straus and Lillie Straus Foundation, Inc.	3
Rollins-Luetkemeyer Foundation, Inc.	3
William S. Abell Foundation, Inc.	2
Commonweal Foundation, Inc.	2
Mid Atlantic Arts Foundation	2
The Lois and Richard England Family Foundation, Inc.	2
The Haron Dahan Foundation, Inc.	2

Source: The Grantsmanship Center, 2014

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Advancing the Mission of the CFA Society

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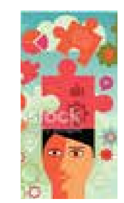
As a Society, we constantly challenge ourselves to improve our value proposition for our members and the Baltimore community. We are an organization formed to foster relationships among financial professionals and advocate for the profession broadly in area's of ethics, market integrity and excellence of practice. We do so with the recognition that the financial service industry is a facilitator of economic growth, and is largely dependent upon the trustworthiness, transparency and efficiency of individual participants. Our mission is perfectly aligned with the efforts of the CFA Institute globally.



As a society, we advocate for certain ideals. To the extent that there are other organizations in the area that do so, there are opportunities for us to be great partners; this publication is a fabulous example. The Baltimore Business Review has been a valued collaboration between our society and the College of Business and Economics at Towson University for years.

As a local society affiliated with the CFA Institute, we harness the broader mission and employ it to the benefit of all of our members be they CFA Charterholders or not. There are certainly many market participants that do not carry the CFA designation but hold themselves equally to high standards. We welcome them to participate in our society, because remaining open as a society to all financial service professionals improves transparency with in the industry. It also helps to build awareness for the CFA designation, which we believe defines a standard of excellence. In an effort to continue this dialog we thought it important to define for our readers how the CFA Society – Baltimore is working to constantly improve our value proposition and build awareness in certain key areas: (i) student outreach, (ii) partnering with similarly minded organizations, and (iii) engaging the professional community.

Student Outreach

We have two extraordinary board members that lead our university and student outreach campaigns from year to year, Susan Flaherty of Towson University and Tuugi Chuluun of Loyola University. With their guidance, our outreach has improved in a number of ways, including: (I) the introduction of annual round-tables with local University faculty, (ii) increasing participation in the Global Investment Research Challenge ("GIRC") and (iii) improving dialog between the society and students about the CFA curriculum and the benefits of participation in the society. It's worth explaining a bit more about each initiative.

In October of each year we hold a faculty roundtable to share perspectives on how we can improve student workforce preparedness and how the CFA Society Baltimore can help. Two faculty members from each of the local universities are invited to participate. We believe the CFA designation shows a level of commitment that employers in Baltimore respect, particularly for undergraduate students. The open dialog taking place at our faculty roundtables has resulted in increased faculty participation in our programs, increased student participation in the GIRC, creative transportation solutions to promote student participation, and presentations at local universities by society board members to better inform students of their alternatives after graduation.

TheGIRC is an annual global competition that provides university students with hands-on mentoring and intensive training in financial analyses. The regional and global competitions are hosted by the CFA Institute, but the local competitions are held by the individual societies. Our local universities are supported by a partnership between the Baltimore and Washington, DC Societies that creates a robust competition. The competition allows for participation of two teams from each university provided that the teams are constructed of students from different academic institutions. The results have been tremendous, and we continue to seek ways to encourage and reward student participation in this challenge. More information can be found at (www.cfasocietybaltimore.org) "Research Challenge".

With the plethora of certifications that exist today, it can be difficult for college students to determine which certification is best suited for their career objectives. We hope creating an open, informative dialog with students helps the decision making process. Our board members now visit with local universities and participate in an open Q&A format so students may better understand the options available and whether the CFA program is the best solution for their career aspirations.

Partnering Opportunities

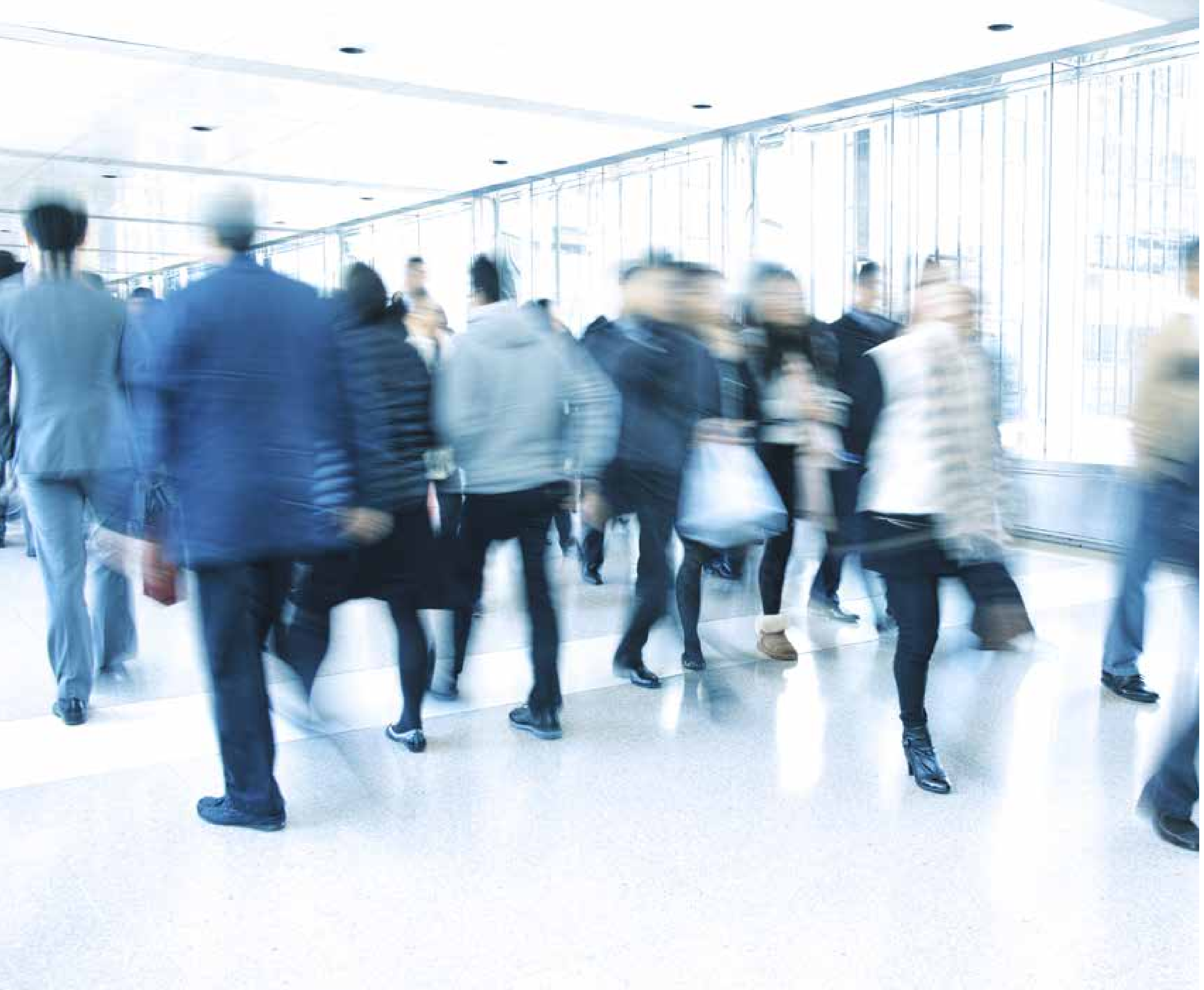
As a society, we advocate for certain ideals. To the extent that there are other organizations in the area that do so, there are opportunities for us to be great partners; this publication is a fabulous example. The Baltimore Business Review (www.baltimorebusinessreview.org) has been a valued collaboration between our society and the College of Business and Economics at Towson University for years.

Another great example is our recently established affiliation with the CFP Board. As of January, 2014, the CFA Society became a CFP Board continuing education sponsor. As such, the programs that we host now qualify for continuing education credits for CFP® holders. We recognize many of our members also hold a CFP® designation, and we expect to maintain our status as a continuing education provider to better serve those members for the foreseeable future.

These partnership opportunities became initiatives simply from active dialog with our members. The Board pledges to continue to pursue open dialogs leading to great partnerships to better serve our members and the local community. One area where we continue to make progress and continue to look for opportunities to engage our membership is on the topic of investment writing. We tested our first investment writing program last year – it quickly sold out. To give our readers an idea of how important this topic is to our membership base, the only other program that sold out in recent history was Jeremy Siegel's presentation just over a year ago. Clearly, it's important. We are open to partnerships that facilitate progress on this topic.

Engaging the Professional Community

This is the area where we believe we have the greatest opportunity to build relationships. We believe Baltimore is an oasis of investment professionals that is largely underestimated because of our proximity to some of the largest societies globally. Yet, we would remind our readers that by global standards, our society is also considered large with over 600 members. Moreover our local community is active and rich with companies that aim to grow globally. We believe it's within our mission to support our local firms whether by growing a talented workforce, partnering on events, endorsing programs with shared ideals, or championing progress and stability in the Baltimore community. To the extent that we can help in that effort, we aim to open that dialog with our members. To look for upcoming educational programs and the ability to network look at the Events tab on our website (www.baltimorecfasociety.org) or email info@baltimorecfasociety.org to be added to our email list for upcoming programs.



A Review of Benefit Corporations and B Corps in Maryland

William P. Smith

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What is the purpose of the modern corporation? "To maximize profits for stockholders" (or comparable variations) is the typical response. But there are several challenges to the traditional "stockholder" perspective. The alternative "stakeholder" perspective argues that organizations serve multiple constituents and therefore must have multiple purposes (Freeman & Gilbert, 1989). While the notion of stakeholders has gained ground as a way of describing the importance of external forces acting on the firm, for many reasons the stockholder view continues to dominate. The tension between these two perspectives has helped shape the emergence of two distinct but related types of business firms: "Benefit Corporations" and "B Corps".

Background on Benefit Corporations

A benefit corporation is a legal entity that enables a business firm to pursue a "general public benefit" in addition to seeking a profit. In 2010 Maryland became the first state to charter benefit corporations. Benefit corporations are now recognized in twenty-seven states and the District of Columbia.

As a condition of their charter, all benefit corporations are required to assess the social impact of their operations according to a third-party review process. No single or approved review is prescribed. Benefit Corporation managers may choose among several possible certification systems so long as (a) the third party is independent of corporation management and (b) the system is reasonably transparent with respect to its data collection and ultimate ratings (Maryland Senate Bill 690, 2010). Examples of possible rating systems are presented in Table 1.

Two factors help explain the emergence and growth behind benefit corporations. First, the legal structure of benefit corporations provides a shield from investors' lawsuits. To the extent that investors can claim their interests as owner should carry dominant (if not exclusive) priority in managing business firms, then any decision which compromises investors' interests (usually profits) becomes a basis for an actionable claim. Benefit corporations are a means to expand an organization's obligations beyond those of investors.

There is a second, broader impetus behind the benefit corporation model. The benefit corporation by its very creation is a statement about the firm's identity: it will promote a broad range of benefits in the interests of multiple constituents. Benefit corporation status is a signal to internal and external stakeholders about the firm's purpose.

Table 1. Potential Third Rating Systems for Benefit Corporations

B Impact Assessment	http://www.bimpactassessment.net
Ceres Roadmap to Sustainability	http://www.ceres.org
Food Alliance Certified	http://www.foodalliance.org
Global Reporting Initiative	http://www.globalreporting.org
Good Guide Company Ratings	http://goodguide.com
Green America Business Network	http://www.greenamerica.org
Green Seal Business Certification	http://greenseal.org
ISO 26000	http://www.iso.org/iso/home/standards/iso26000.htm
People4Earth Business Framework	http://www.people4earth.org
Sustainability Quotient	http://site.ul.com/global/eng/pages/offerings/businesses/environment/services/sq/enterprisestandards/UL880/
Sustainable Farm Certification	http://sanstandards.org

Source: http://benefitcorp.net/third-party-standards/list-of-standards

Granting managers a broader discretion to pursue those outcomes which may create social benefits at the expense of investors have caused some concerns that these managers may now be effectively shielded from the accountability of their actions (Plevin, 2013). Benefit corporations are accountable to contribute to the "general public benefit" (Halsey, Tomkowicz & Halsey, 2013). In most states (including Maryland) this means benefit firms must seek out and adopt a set of third party standards that evaluate the extent to which the business contributes to the general public benefit.

Enter the B Corp

The terms "Benefit Corporation" and "B Corp" are often used synonymously. They are complimentary but distinct terms. A "B Corp" is a firm that has met the standards established by "B Lab", a nonprofit advocacy organization based in Philadelphia. B Lab has created an assessment protocol called "B Impact". B Impact is one of the third-party assessment methods available to benefit corporations. This rating system evaluates public benefits created by the firm according to four dimensions (workers, communities, environment, and governance). The B-Impact Assessment methodology is extensive. The most recent version available to me (early 2014) contained 157 items. It would clearly take several hours for someone with an extensive knowledge of a firm's operations to complete this instrument. As of October 2014 over 1100 organizations have earned the "B Corp" designation.

Tracking Maryland Benefit Corporations

As shown in Table 2, in May 2014 there were 105 benefit corporations registered in Maryland; 73 LLCs and 32 S Corporations. In August there was a rather substantial decline in the number of Benefit LLCs. The number of benefit corporations remained virtually constant.

Table 2. Number of Benefit LLCs and Benefit Corporations Registered in Maryland

	May 2014	August 2014
LLCs	73	50
C Corporations	32	33
Total	105	83

source: Maryland State Department of Assessment and Taxation

Table 3. Benefit Corporations Registered in Maryland (August 2014)

Americans All Benefit Corporation	Frank Hayward III Benefit Inc.
Awesome Wonder Eco Enterprise	Good-Thrift Benefit Corporation
BBWoof Rock Creek, Benefit Corporation	Khan Mentors Benefits Inc.
Big City Farms Inc.	Mama Organic Market Benefit Corporation
Blessed Coffee, Inc.	Maryland Integrity Benefit Inc.
Cambio Co. Benefit Corporation	Mob Rules Games Benefit Corporation
Change University Benefit Inc.	Neelamga & Community Benefit Corporation
Coconut Orchard Benefit Co.	New Spin Robotics
ColbyCorp, A Benefit Corporation	Peacemakers Benefit Corporation
Conscious Ventrue Lab, A Benefit Corporation	Semana Tica Benefit Corporation
Curious Iguana, Benefit Corporation	Small Small Benefit Co
DAANA Benefit Corporation	SocioEconomic Benefit Corporation
Dragonfly Solutions, Inc.	Taharka Brothers Ice Cream
Elizabethtowne Benefit Corporation	Tigra Promotions, A Benefit Corporation
Emory Knoll Farms, Inc.	Verdant Benefit Corporation
Ethical Electric, Inc.	Zarif Design, Benefit Corporation
Fenton Street Market, Inc.	

Source: State of Maryland

The primary purpose of this investigation was to survey for the third-party certification protocols followed by Maryland Benefit Corporation. Using the inventory of firms available from the state's registration list, the survey started from a search for the contact information for all 33 benefit corporations.. Those companies are listed in Table 3.

Three of these benefit corporations made their certification status available on their websites. The remaining companies were contacted using either an email address or phone number from their websites. The availability of companies, response rate and tanswers are summarized in Table 4.

About half (16 out of 33) of the registered benefit corporations in Maryland have no apparent contact information. In some instances the firms may have ceased operations (e.g. phone numbers disconnected, a given website is no longer available). However the majority of cases where no contact information was available involved firms that had addresses or some other public registration but lacked any notable public presence that would have provided a website or phone number, indicating that these are small enterprises with very specialized purposes. About fifty percent (8 out 17) of the remaining firms responded inquiries by phone or email. Most of the benefit corporations (5 out of 8) reported they had yet to determine a third-party certification standard, either because the business was simply too young (e.g. less than a year) or a decision would be forthcoming soon. Almost all of the "yet to determine" companies had been considering the B Impact standards from B Lab.

Observations on the Trend

Based on the responses available, a few tentative observations can be suggested. First, in this day and age, what sort of company does not have a website or a publicly available email address? The easy answer is "one that doesn't need one". Hence we note that a great many benefit companies in Maryland pursue purposes so focused that they do not require or benefit from a public persona. It might be worthwhile to investigate these firms further, though these entities are elusive by design.

Table 4. Maryland Benefit Corporations and Third-Party Standards

No Apparent Contact Information available	16
Contact Initiated (phone or email) /No Reply Received	9
Currently B-Lab Certified	3
Have yet to determine a certifying process	5
TOTAL	**33**

Maryland Benefit Corporations and Third-Party Standards

More significantly, the other half of the benefit corporations I studied do contain firms with visible public profiles. Many of these firms are engaged in manufacture and/or marketing of consumer products (e.g. electricity, pet products, ice cream, coffee, video games). These firms share many of the characteristics of traditional start-ups: they are led by hard-working, innovative, energetic visionaries who are challenged by limited resources (time being one of them). A notable finding from this investigation is that fewer than half of these benefit corporations reported having a third- party certification standard in place, suggesting that the commitment to assessing social purpose is made after operations have begun.

Even though the response pool is limited, we can be confident that the B Corp standard is far and away the most popular certification system with Maryland benefit corporations. One possible explanation comes from the proximity of B Lab's home (Philadelphia) to Maryland. Also "B Corp" label has become an almost generic brand name and strongly associated with the benefit corporation trend. Further, the B Lab assessment tool is a balanced one that measures a firm's performance in multiple areas (employees, communities, sustainability, product).

The present investigation represents a very modest look at how Maryland benefit corporations are assessing their contribution to the "general public benefit" of their communities. Like the companies themselves this investigation is in its infancy. More time will be needed to determine how and to what extent benefit corporations contribute to the general welfare of Maryland.

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Towson University Index—Towson University Investment Group

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The Towson University Index (TUI) was created in 2007 to measure the performance of publicly traded companies that had a connection to Towson students. The index includes companies who have a history of hiring Towson University students, are thought to be possible hirers of Towson students, or have some other connection to the University or the state of Maryland. The original TUI had 30 Maryland based companies and 10 companies located outside of the state.

Now composed of 50 publicly traded companies, the TUI contains 31 Maryland-based companies and 19 non-Maryland companies. In designing the index, we used a weighted approach where companies with larger market capitalizations held a greater representation than their smaller counterparts. Further, Maryland companies received a greater weight in the TUI than companies based outside of the state.

Figure 1 displays the performance of the TUI relative to the S&P 500 index over the last 7 years, the period between July 2007 and August 2014. Since the creation in 2007, the TUI index has outperformed the S&P 500 by 46.4%. The four most represented sectors in TUI are Financials (53.7%), Consumer Staples(20.5%), Industrials (15.94%), and Consumer Discretionary (5.7%). In the last 12 months, the TUI remained strong in comparison to the S&P 500, outperforming by 10.8%.

Table 1. Companies Based in Maryland

Ticker	Company	Market Cap*	Sector	Quarterly Revenue*	Employees
ADX	Adams Express Co	1,310	Financials	14	30
AGNC	American Capital Agency Corp	7,570	Financials	163	392
AGX	Argan Inc	502	Industrials	102	359
CHH	Choice Hotels International Inc	3,010	Consumer Discretionary	210	1,088
CIEN	Ciena Corp	1,810	Information Technology	604	5,136
OFC	Corporate Office Properties Trust	2,270	Financials	140	380
CSGP	CoStar Group Inc	5,030	Industrials	148	2,046
DISCA	Discovery Holding Co	25,870	Consumer Discretionary	1,610	5,700
FGL	Fidelity & Guaranty Life	1,257	Financials	392	180
GPX	GP Strategies Corp	532	Industrials	135	3,009
GVP	GSE Systems Inc	28	Information Technology	8	235
LM	Legg Mason Inc	5,980	Financials	677	2,843
LMT	Lockheed Martin Corp	57,130	Industrials	11,306	115,000
MGNX	MacroGenics, Inc	555	Healthcare	9	166
MAR	Marriott International Inc	20,470	Consumer Discretionary	3,484	123,000
MKC	McCormick & Co Inc	8,670	Consumer Staples	1,044	10,000
MED	Medifast Inc	424	Consumer Discretionary	81	808
MCRS	Micros Systems Inc	3,853	Information Technology	396	4,950
OHI	Omega Healthcare Investors Inc	4,330	Financials	122	25
OSIR	Osiris Therapeutics Inc	435	Healthcare	13	70
SASR	Sandy Spring	580	Financials	49	725
SBGI	Sinclair Broadcast Group Inc	2,590	Consumer Discretionary	455	6,400
TROW	T Rowe Price Group Inc	20,650	Financials	984	5,750
TSYS	TeleCommunication Systems Inc	167	Information Technology	86	1,257
TESS	Tessco Technologies Inc	247	Information Technology	153	821
SLCA	U.S. Silica Holdings, Inc	3,430	Industrials	206	844
UA	Under Armour Inc	14,960	Consumer Discretionary	610	3,300
UTHR	United Therapeutics Corp	6,270	Healthcare	323	706
UUU	Universal Security Instruments Inc	10	Industrials	3	16
USU	USEC Inc	4	Energy	121	1,432
GRA	W.R. Grace & Co	6,910	Materials	838	6,700
Total		**206,854**	***numbers expressed in millions**		

Disclosure:

The current TUI is based on the 2014 TUI and was updated with the assistance of Towson University's Internship and Career Services program. Historical company prices were obtained from Yahoo Finance, employee figures were obtained from MSN Money, sectors of the companies and their respective quarterly revenues were obtained from NetAdvantage, a Standard and Poor's service. August 29, 2014 market capitalizations where obtained by dividing recent company market capitalizations by recent company prices and multiplying this number by the share price on August 29, 2014. This calculation assumes the effects of changes due to share insurances to be minimal.

Table 2. Companies Based Elsewhere

Ticker	Company	Market Cap*	Sector	Quarterly Revenue*	Employees
BBT	BB&T Corp	26,850	Financials	2,470	33,700
BBY	Best Buy Co Inc	11,760	Consumer Discretionary	8,896	140,000
C	Citigroup Inc	157,800	Financials	17,565	244,000
COF	Capital One Financial Corp	46,440	Financials	5,865	44,600
KIM	Kimco Realty Corp	9,030	Financials	255	597
LUV	Southwest Airlines Co	23,070	Industrials	5,012	45,508
MS	Morgan Stanley	67,740	Financials	8,626	56,142
MTB	M&T Bank Corp	16,410	Financials	1,259	14,885
MW	The Men's Warehouse, Inc	2,310	Consumer Discretionary	803	13,300
NOC	Northrop Grumman Corp	27,440	Industrials	6,039	65,300
PG	Procter & Gamble Co	228,630	Consumer Staples	19,018	118,000
PNC	PNC Financial Services Group Inc	46,320	Financials	4,037	49,921
RHI	Robert Half International Inc.	6,640	Staffing	1,165	13,000
RVBD	Riverbed Technology, Inc	2,990	Information Technology	264	2,556
SHW	Sherwin-Williams Co	21,390	Materials	3,043	37,633
SUSQ	Susquehanna Bancshares	1,900	Financials	208	3,296
SWK	Stanley Black & Decker Inc	14,060	Industrials	2,886	50,700
UPS	United Parcel Service Inc	89,920	Industrials	14,268	213,210
WFC	Wells Fargo & Co	269,840	Financials	22,068	263,500
Total:		**1,070,540**	***numbers expressed in millions**		

Figure 1. TUI Relative to S&P 500

We noted several acquisitions in this year's compilation of the TUI (See Table 3). Among the acquisitions were: Jos. A Banks Clothiers, Opnet, Arbitron, and Micros Systems Inc. The companies were acquired by The Men's Wearhouse, Riverbed Technology, Nielson, and Oracle respectively. Along with the acquisitions, two mergers occurred within the year. Capital Source underwent a merger with PacWest Bancorp and Sourcefire merged with Cisco Systems. To conclude company updates: First Mariner Bank filed for bankruptcy protection in February 2014. The company was delisted from the OTC bulletin in mid-2014.

Together, the companies that were acquired, merged, or bankrupted made up 6.6% of the TUI. Last year, the only company acquired in the TUI was Coventry Health Care; the company was replaced with U.S. Silica Holdings, a company specializing in silica product delivery.

Table 3. Mergers and Aquisitions

Company	Ticker	Acquired by/Merged with:	Closing Date	Weighting
MICROS Systems, Inc.	MCRS	Oracle Corp. (ORCL) for $5.3 Billion	9/9/2014	2.54%
Jos A Bank Clothiers, Inc.	JOSB	The Men's Wearhouse (MW) for $1.8 Billion	6/18/2014	0.87%
CapitalSource, Inc.	CSE	PacWest Bancorp (PACW) for about $2.3 Billion	4/8/2014	1.10%
OPNET Technologies, Inc.	OPNT	Riverbed Technology (RBBD) for about $1 Billion	12/18/2012	0.36%
Arbitron	ARB	Nielsen Holdings N.V. (NLSN) for $1.26 Billion	12/9/2012	0.61%
Sourcefire, Inc.	FIRE	Cisco (CSCO) for $2.7 billion	10/7/2013	1.14%
All companies were replaced with new additions for this year's TUI			**Total**	**6.62%**

The loss of public companies from acquisitions, mergers, and bankruptcies appears to exceed the number of companies seeking a public listing in the Maryland area. Further, the relatively large shift in the sample of companies will likely have a distortionary effect on the accuracy of the TUI. The premiums paid in company acquisitions are not picked up by the index. To account for the large shift of TUI companies, we added three Maryland-located companies and three companies based elsewhere. Concerning Maryland companies, we included American Capital Agency Corp., a real estate investment trust (REIT) based in Bethesda; Fidelity & Guaranty Life, an insurance company based in Baltimore; and Macrogenics, a biopharmaceutical company located in Rockville. For non-Maryland companies, we included The Men's Wearhouse, Riverbed Technology, and Robert Half International in this year's TUI.

The TUI serves to demonstrate the opportunities available for the students of Towson University. The index is meant to acknowledge the relative performance of publicly traded companies connected to the University and does not account for the private companies and government organizations that also contribute to growth in the area.

The Seventh Annual TUIG International Market Summit will be on April 7, 2015 from 5:30 p.m. to 9:00 p.m. in Stephens Hall Room 310.

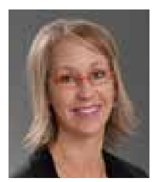
TOWSON UNIVERSITY

Towson University Investment Group

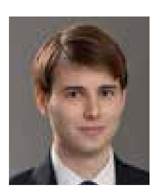
The Towson University Index (TUI) was created in 2007 to measure the performance of publicly traded companies that had a connection to Towson students. The index is meant to serve as a sample of companies who have a history of hiring Towson University students, are thought to be possible hirers of Towson students, or have some other connection to the University or the state of Maryland. The current TUI is composed of 50 publicly traded companies with 31 Maryland and 19 non-Maryland companies. In designing the index, we used a weighted approach where companies with larger market capitalizations held a greater representation than their smaller counterparts. The four largest sectors in the TUI are Financials at 53.7%, Consumer Staples at 20.5%, Industrials at 15.94%, and Consumer Discretionary at 5.7%. Since the 2007 creation of the TUI, the index has outperformed the S&P 500 by 46.4%.

Contributors

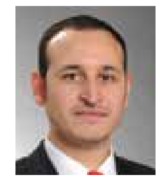
DR. MASSOUD AHMADI has led DHCD's Policy, Planning and Research Division as Director for the past eleven years, serving as a distinguished senior economist in Maryland for 29 years. Dr. Ahmadi holds a Ph.D. in Economics from American University. He has taught fundamentals of domestic and international economic policy at American University, the Inter-American Development Bank, and at the Institute of European Studies in Brussels, Belgium.



JAN BAUM is the Executive Director of 3D Maryland, a state-wide leadership initiative driving innovative economic growth through 3D printing and additive manufacturing serving business, industry, and entrepreneurs. Coordinating the rapid tech ecosystem and building a loosely coupled system of collaborative relationships across sectors, 3D Maryland is the nexus for 3D printing and additive manufacturing in the state, and is recognized nationally as a blueprint for how states can organize. Baum is a leader in the 3D printing and additive manufacturing space educating high level audiences, building digital fabrication labs, coordinating a wide variety of events and has been recognized with numerous awards: The Daily Record's Influential Marylanders 2014, The Daily Record's Innovator of the Year 2013, 2014, the Economic Alliance of Greater Baltimore's Rock Star Series 2012, and Smart CEO Voltage Award finalist, 2012, 2014. Baum is a full professor and principal at Jan Baum + Associates LLC.

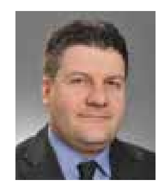


STEFAN BORDONARO is a Molecular Biology, Biochemistry, & Bioinformatics student from Towson University. He utilizes his background in science to analyze companies in the biotechnology, medical technology, and pharmaceutical space. He combines this along with his experience of fundamental and financial analysis. Stefan currently serves as the Assistant Portfolio Manager for Towson University Investment Group.



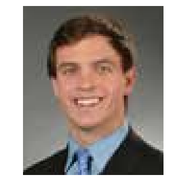
JACOBO BRANDEL, MS, is a Graduate Assistant, Department of eBusiness & Technology Management at Towson University. Jacobo earned his B.A. in Industrial Engineering and M.S. in Project Management from the Universidad Tecnologica Centroamericana, C.A. His career experience includes expertise in transportation and logistics working for global leading companies in the shipping and apparel manufacturing industries.

ASUNTHA CHIANG-SMITH has been Chief of Staff at the Maryland Department of Housing and Community Development (DHCD) for the past two years, previously serving in senior economic development policy/project management roles over the last two decades.



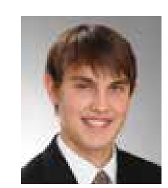
MICHAËL DEWALLY, PH.D., Co-Editor of the Baltimore Business Review, Assistant Professor in the Finance department, holds a MS in Chemical Engineering from France and a MBA and Ph.D. from the University of Oklahoma. Upon graduation with his doctoral degree, he accepted a position at Marquette University in Milwaukee from where he joined Towson University in 2010. Michaël's research interests are in the fields of Investments and Corporate Governance. His research areas span from the link between corporate governance structure and firm performance to the profits of market participants in the crude oil futures market. His research has appeared in the *Review of Financial Studies*, the *Journal of Business*, the *Journal of Banking and Finance*, the *Journal of Corporate Finance*, the *Financial Analysts Journal* among others.

Contributors



BRYAN GOODYEAR, from Middletown, MD, is a student at Towson University with an expected graduation of May 2015. He is currently pursuing a double major in e-Business and Business Administration with a concentration in Project Management & Business Analysis with Honors and a minor in Classical Guitar Performance. Since 2013, Bryan has served as the President of Project Management Association and has held other leadership positions including President of Track Club and Resident Assistant. Bryan currently interns at TBB Global Logistics as an IT intern.

CHAODONG HAN, PH.D., is an Assistant Professor, Department of eBusiness and Technology Management at Towson University. He received his Ph.D. in logistics from Robert H. Smith School of Business, University of Maryland in 2008. Focusing on global supply chain management, his research has been published in logistics journals with Emerald Journals' Highly Commended Paper Award in 2009. He was selected as a Junior Fellow of Towson Academy of Scholars for his research project in humanitarian supply chain management for AY 2010-2011. He earned his MBA from Smith School of Business, M.A. from Georgetown University and B.A. from Beijing University, China.



WILLIAM MASON, from Little Orleans, Md., is a student at Towson University with an expected graduation of May 2016. William is an Economics major and serves as the Portfolio Manager for the Towson University Investment Group, to which he previously served as the Assistant Portfolio Manager. Within the last year, William started working as a Leadership Consultant for Towson's Office of Student Activities and placed as a Top 5 Finalist in the 2014 TowsonGlobal Business Competition.

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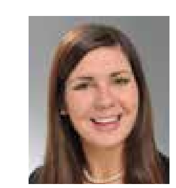

ERICA D. NIEMANN, CFA, is an Analyst at Lane Five Capital Management, a long-biased, concentrated valuation-driven hedge fund based in Towson, MD. Erica joined Lane Five in 2007 and has covered various industries including retail, industrials, media, payment processing, education, automotive and travel. While Lane Five primarily invests in equities, the fundamental research process has spurred investments in high yield bonds and options strategies as well. Prior to joining Lane Five, she was an Associate Analyst in the Equity and Capital Markets Research Group of Mercantile Capital Advisors (now PNC Advisors). Erica graduated from Loyola College in Maryland in 2005 with a double major in Finance and Economics, and received her CFA designation in 2010.

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TOBIN PORTERFIELD, PH.D. is an Associate Professor in the Department of eBusiness & Technology Management at Towson University. He conducts research in business-to-business relationship management and the use of information technology in the supply chain. Dr. Porterfield teaches operations management, project management, and business analysis courses at both the undergraduate and graduate levels. He holds a Ph.D. in Logistics from the University of Maryland-College Park. His research has been presented at regional and national conferences as well as being published in such journals as *Transportation Journal* and *The International Journal of Physical Distribution and Logistics Management.*

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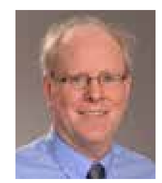
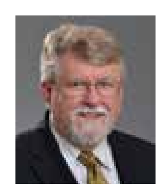


WILLIAM P. SMITH, PH.D. is a Professor in the Department Management at Towson University where he teaches courses in business ethics and international business. Dr. Smith earned his Ph.D. in Business from Arizona State University. His research interests include workplace privacy and business ethics pedagogies. His work has been published in the Academy of Management Perspectives, The Journal of Business Ethics, and Business Horizons. He is an active member of the International Association for Business and Society



RODNEY L. STUMP (PhD, Case Western Reserve University) is a professor of Marketing at Towson University, College of Business and Economics, and has also held several administrative positions. Dr. Stump also serves as an Adjunct Professor at Høgskolen i Molde (Molde University College), Norway, where he teaches graduate-level seminars and serves as an Outside Examiner on dissertation committees. He is also a Fulbright Scholar alumnus (Canada 2002-2003) while he was a Visiting Associate Professor at York University, Schulich School of Business, in Toronto.

Dr. Stump is also an active scholar, with nearly 75 peer-reviewed journal articles and conference presentations. His research has focused on interorganizational relationship and strategy issues in business-to-business marketing, distribution channels, organizational purchasing behavior, and international marketing. His recent research interests have turned to volunteerism and nonprofit marketing.

About Towson University

Founded in 1866, Towson University is recognized among the nation's best regional public universities, offering more than 100 bachelor's, master's and doctoral degree programs in the liberal arts, sciences and applied professional fields on its 328-acre campus. Serving more than 21,000 students, Towson University is one of the largest public universities in Maryland. The university provides innovative graduate courses and programs that respond to specific state, regional and national work force demands. As a metropolitan university, Towson plays a key role in the educational, economic and cultural life of its surrounding communities, the Baltimore metropolitan area and the state of Maryland.

About The CFA Society Baltimore

The CFA Society Baltimore's mission is to provide the financial community with information and knowledge, while advocating ethical conduct with regard to investments and financial management. The CFA Society Baltimore also seeks to encourage and aid the education of persons engaged in the investment profession, and to provide members of the society with opportunities to exchange ideas and information amongst their peers.

The CFA Society Baltimore is an affiliate of the CFA Institute, which has over 125,000 members globally. The CFA Society Baltimore membership, 600 members strong, draws from a diverse cross section of local investment firms, financial and educational institutions, and government agencies.

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Towson University Incubator

The Towson University Incubator serves as an entrepreneurial resource and activity hub inside and outside of Towson University. The TU Incubator assists quality early-stage companies and entrepreneurs who have an innovative idea and viable business plan for growth. Uniquely positioned to assist entrepreneurs, the incubator leverages university resources and expertise, particularly in the field of education. Members receive a wide range of support, including affordable office facilities, customized counseling, access to a seasoned advisory board and mentor network composed of business and economic leaders, and collaboration and networking opportunities with member companies and partners. Tap into TU Incubator's resources today!

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