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CFA Society  
Baltimore



TOWSON  
UNIVERSITY

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### Message from the Dean

TOWSON UNIVERSITY, COLLEGE OF BUSINESS AND ECONOMICS

Dear Colleagues and Friends,

I am proud to announce the fourteenth issue of the *Baltimore Business Review: A Maryland Journal*. Every year the Baltimore Business Review displays a collaboration that illustrates the strengths of the College of Business and Economics (CBE) at Towson University and the Baltimore CFA Society, generating a terrific publication highlighting business communities in and beyond Maryland.

Building on last year's issue and continuing to support our vision, this edition of the *Baltimore Business Review* focuses on several topics that encompass the perspectives of scholars, students, and practitioners. Each article discusses practical and important issues in its own individual voice.

This issue explores a variety of topics important to this region. Two articles in this issue identify ways to help businesses better respond to employees. Both articles are products of great collaborations between students and faculty. The article "Evaluating Hiring and Retention Practices in Maryland Businesses" focuses on how intrinsic and extrinsic job satisfaction help drive job performance and retention in firms. It also explores which recruiting sources are most effective with respect to talent retention. A second article, "Trusted Insiders and the Temptation to Talk: Preventing Unauthorized Disclosures," discusses how firms can mitigate the risk of employees disclosing proprietary information. A third article in this publication, "Grade Disparities in Principles of Microeconomics Before and During COVID-19," explores the differential impact of the pandemic on students, in particular women and minorities. Another article, "Benefits to Firm ESG Focus," discusses the value to investors of local companies focusing on environmental, social, and governance (ESG) issues within their firms. Lastly, we include a survey from the student-run Towson University Investment Group that explores evaluating the knowledge of our students on investment decisions within the current market.

I would like to express my appreciation to everyone who contributed to this issue of the *Baltimore Business Review*. It is their time and effort that made this publication possible. We are delighted that you are joining us as readers, and as always, we look forward to hearing any feedback.

Best regards,

Judy Harris, Ph.D.  
Interim Dean, College of Business and Economics



### Message from the President

CFA SOCIETY BALTIMORE

Dear Friends and Colleagues,

As we enter 2023, my fellow board members and I are grateful for the flexibility, collaboration, and patience our society members have shown as we navigate what continue to be uncertain times. Well wishes to all our readers and your families! Many in the financial services profession have gravitated back to the office. Work travel is back in full swing. It has been a joy to reconnect in person with longtime friends, colleagues, and industry peers. Yet, with the new hybrid work environment, which looks to be a permanent state, delivering content and value to our membership has required adaptation and adjustment—as all of you have had to adapt and adjust your daily routines.

I could not be prouder of everyone involved in the CFA Society Baltimore, as we have executed a combination of in-person, hybrid, and fully virtual events. We are committed to continuing that three-pronged approach to meet the needs of our wide-ranging membership.

We'd be remiss if we did not highlight the return of our flagship conference, Investing in a PostPandemic World, hosted at the Four Seasons in downtown Baltimore in April 2022. In addition, we have resumed in-person educational events at the Center Club (often with a virtual option available) and in-person networking activity.

We are excited about our lineup of programming for 2023. Membership should expect ongoing monthly educational programming to be delivered virtually, with flagship events also offering an in-person option. We are committed to quarterly in-person networking events, a consistent request from our members, who value the mentoring and networking those events provide. Lastly, we look forward to bringing back our in-person forecasting dinner, which was a flagship event pre-COVID, in early 2023.

This year's Baltimore Business Review is the 14th edition and a continued hallmark of the society. We are incredibly grateful for our partnership with the Towson College of Business and Economics to deliver this publication again in 2023.

Many thanks are owed to Executive Director Robyn Osten for her tireless efforts and organization of all the society does, including this publication. Our editorial staff of Susan Weiner, alongside Qing Yan and Rachel Gordon from Towson University, collectively make this publication best-in-class. The design and detail orientation of Rick Pallansch and Chris Komisar from the Towson University Creative Services team is critical to bringing this project to life. Finally, thank you to all our authors and contributors. Your collective time and effort make this possible.

The CFA Society Baltimore originated in 1948 and serves over 800 members today. In a joint effort, the CFA Society Baltimore and its parent, the CFA Institute, work to promote and advocate the principles of the CFA program. The society proudly leads the investment community and other finance-related communities by promoting the highest standard of ethics, education, and professional excellence for the entire community's benefit. In this publication, you can see the list of the top 10 employers of our society's members.

I hope you enjoy this 14th edition of the Baltimore Business Review.

David E Donahoo, CFA



### Top 10 Employers of CFA Society Baltimore Members

1. T. Rowe Price
2. Brown Advisory
3. Stifel Financial
4. Franklin Templeton
5. PNC Financial
6. Morgan Stanley
7. Maryland State Retirement Agency
8. WMS Partners
9. 1919 Investment Counsel
10. Aegon Asset Management



## Evaluating Hiring and Retention Practices in Maryland Businesses

Crystal Johnson

Major in Business Administration, Towson University

Nhung T. Hendy, Ph.D.

Professor, Department of Management, Towson University

### Introduction

The COVID-19 pandemic has created an unprecedented challenge for managers across industries and organizations to motivate and retain their workforce in the current work climate of “Quiet Quitting”, defined as doing the bare minimum, rather than leaving the organization, and the “Great Resignation”, defined as leaving the organization entirely and voluntarily. According to the Bureau of Labor Statistics, in 2021, there were more than forty-seven million U.S. workers separated from their jobs, of which almost 24 million voluntarily quit their jobs, an all-time high quit rate. According to the latest Job Openings and Labor Turnover survey summary, the above statistics have not changed much for the past nine months of 2022, which signifies a persistent trend of voluntary turnover. Across industries, both small and big businesses have faced staffing shortages as they reportedly have left vacant positions unfilled (Fuller & Kerr, 2022, the National Federation of Independent Business Jobs report). It is therefore important for organizations to not only recruit and hire talented employees to fill those vacancies, but also retain those employees.

Lack of job satisfaction has been shown to be a primary driver of job engagement and turnover intention in prior research. Collective turnover was found to negatively impact organizational performance. The adverse effect was found to be more pronounced in customer service or where safety and quality are important, based on a large-scale meta-analysis (Hancock et al., 2013). Service was the third largest sector in 2021 contributing to Maryland’s Gross Domestic Product (GDP) after government (largest sector) and finance, insurance, and real estate (second largest sector, [msa.maryland.gov](http://msa.maryland.gov)). In addition, Maryland is the headquarters of some Fortune 500 companies in 2021, including Lockheed Martin (49), Discovery Communications (290), Marriott International (293), T. Rowe Price (447), Sinclair Broadcast Group (465) and McCormick (482). It is reasonable to expect that safety and quality are key success factors in these companies. Taken altogether, talent retention is more important now than ever to sustain Maryland economy post pandemic.

According to the 2021 Gallup poll of the state of the global workforce, the level of job engagement among U.S. workers was lower in 2021 compared to what was recorded during the pre-pandemic years. Because the positive linkages between job satisfaction, employee engagement, and job performance at both individual and business unit levels

have been well documented, and generalizable across industries in prior meta-analyses (e.g., Judge et al., 2001; Harter et al., 2002), the current state of employee low level of job engagement and retention is a serious concern for managers and executives.

The purpose of this study was twofold. First, we examined the role of job satisfaction (both intrinsic – satisfaction with the job itself and extrinsic – satisfaction with pay) as separate drivers of retention and job performance. Second, various hiring sources were examined to identify which recruiting source was the most effective in terms of job performance and talent retention.

### Methods

Data were collected entirely online via Survey Monkey platform during the last week of April and first week of May in 2022 after obtaining the approval from the Institutional Review Board. Participants from Maryland were recruited via emails from the social network of the first author to participate in this study on a voluntary basis without any monetary compensation. Due to missing data, the final sample was 44 working adults with an average age of 28.52 (ranging from 19 to 62 years old). The sample was predominantly female (70.5% or 31) with 52.3% Blacks, 27.3% Whites, 13.6% Asians, 4.5% Hispanics, and 2.3% “other”. In terms of education, 43% of participants had at least a baccalaureate degree with the remainder of the sample either had an associate degree or were completing a college degree. Participants held various jobs including IT, Human Resources, Retail/Sales, Education, and Healthcare.

Two facets of job satisfaction, i.e., satisfaction with the job itself and pay satisfaction were measured using the Job Descriptive Index (JDI) following Balzer et al. (1997) scoring procedure. To measure satisfaction with the job itself, participants were shown a list of eighteen descriptors, a sample of which include “Pleasant”, “Enjoyable”; “Waste of time”; “Better than most”; “Undesirable” and asked to check “Yes” if it described their job, “No” if it did not describe it, and “?” if they could not decide. To

**Table 1. Descriptive statistics and intercorrelation of variables examined in the study (N = 44)**

Variable	Mean	Std	1	2	3	4	5	6
1. Gender (1 = Male; 2 = Female)	1.32	.52	-					
2. Age	28.52	2.76	.06	-				
3. Tenure with the organization	2.96	4.06	-.05	.69	-			
4. Pay satisfaction	30.14	19.36	-.13	.38	.25	.89		
5. Satisfaction with the job itself	25.93	15.69	.12	.35	.22	.49	.90	
6. Job performance	2.30	.66	-.18	.27	.32	.08	.30	-
7. Need support (0 = No; 1 = Yes)	.52	.51	.06	.29	.19	-.01	-.27	.02

Note: Correlations  $\geq 0.27$  are significant at  $p < 0.05$  (one-tailed); Correlations  $\geq 0.40$  are significant at  $p < 0.01$  (one-tailed). Cronbach Alpha's internal consistency estimates are shown along the diagonal.

measure pay satisfaction, participants were shown a list of nine descriptors a sample of which include “fair”, “comfortable”, “well paid”, “underpaid”, “bad” and asked to check “Yes”, “No” or “?” similar to the above procedure with job satisfaction. The internal consistency estimates for satisfaction with the job itself was 0.90 and satisfaction with pay was 0.89, which were comparable to the psychometric properties of the JDI reported in Gillespie et al. (2016). One item was used to measure job performance. Participants were asked to rate their job performance using a 4-point scale with “4” being “outstanding”, “3” – “good” “2” – “average”, and “1” – “below average”. One item was used to measure the recruitment source. Participants were asked to indicate which recruitment source (e.g., college recruiting, company website/career section, employee referrals, promotion from within, and external job posting/social media), was used that led them to their current job at the time of this study. Participants were asked to rank the importance of five drivers of retention: pay and benefits, promotional opportunities, better co-workers, flexible work arrangement, and better organizational culture. One item was used to measure whether additional support would be needed.

### Results and Discussion

As shown in Table 1, satisfaction with the job itself was found to be positively related to performance self-appraisal ( $r = 0.30, p < 0.05$ ). In addition, those reportedly happy with their job were also satisfied with their pay ( $r = 0.49, p < 0.01$ ), and did not need any additional support ( $r = -0.27, p < 0.05$ ) compared to those who were neither happy with their job(s) nor their pay level. These findings were consistent with prior meta-analytic findings (e.g., Judge et al., 2001). A policy implication of this finding is that organizations are recommended to improve pay transparency because it improves employee's perception of pay equity (Agovino, 2022). In addition, pay transparency may improve the candidate attractiveness to the job, especially when the job contains undesirable characteristics such as no remote work opportunities as organizations encourage employees to return to the office post pandemic.

Figure 1 depicts the results of talent retention analysis. Specifically, the most important driver of retention was better pay and benefit (cited by 51.4% of participants), followed by better promotional opportunities (20.6%); and flexible work arrangement (14.7%). These findings were consistent with Pew Research Center survey results reported in Chen's (2022). In addition, we conducted a gender subgroup comparison and found that women ranked flexible work arrangement as significantly more important in staying on or leaving the job, than did male participants. This finding suggested that to improve gender diversity, firms in Maryland may want to consider offering flexible work arrangement in terms of geographical flex-

ibility (remote work/telework) and content flexibility (e.g., job sharing, vertical/horizontal job loading) to attract and retain female employees. Co-workers and organizational cultures were ranked among the least important in staying or leaving job(s). This poses a significant challenge for organizations in promoting a diverse and inclusive culture.

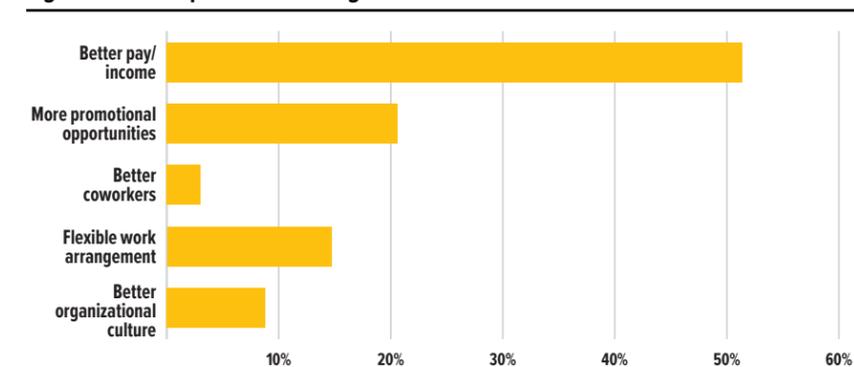
Figures 2 and 3 show the effectiveness of hiring source in performance and retention. As shown in both Figures, company website was the most effective in hiring productive employees who will remain with the organization. Promotion from within and external job posting, or social media were tied as the second most effective hiring source in terms of performance. However, in terms of retention, promotion from within was the second most effective hiring source. Interestingly, employee referrals were the second least effective and college hiring was the least effective hiring source in predicting both performance and retention. These findings were consistent with Gallup's survey results showing company websites and/or the career section as the most popular sourcing method of job seekers (gallup.com). Firms in Maryland are therefore recommended to leverage their brand equity using their website and/or career section in addition to promoting from within as both were the most effective in talent acquisition and retention. For smaller firms that might not have a brand recognition compared to bigger firms, they should consider investing in a website and/or career section to attract job seekers, especially passive job seekers.

Several limitations of this research should be noted. First, the sample was small and predominantly female. This may have caused the male vs. female comparison less stable. The job performance measure was self-report, suggesting that there may be social desirability bias, inflating performance levels. Indeed, no one reported a below average performance level. Larger samples to replicate this study and to examine if more support may be needed for employees, especially those with disabilities are needed as organizations embrace an inclusive and diverse workforce in the post pandemic workplace.

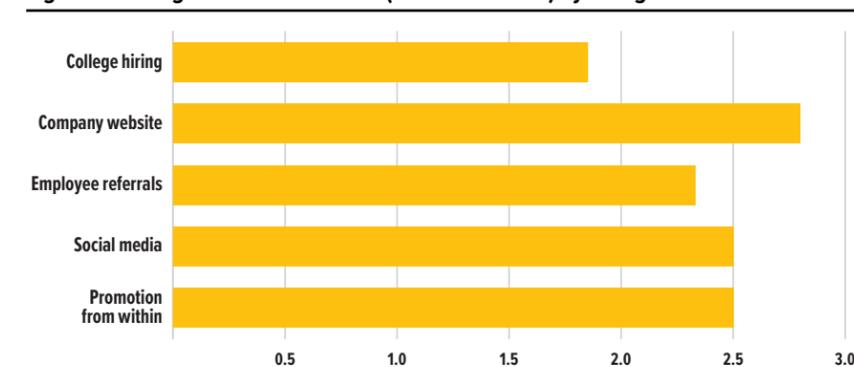
### Conclusion

This study added further support to extant literature on talent acquisition and retention in a post-pandemic workplace such that intrinsic satisfaction was more influential in talent retention than extrinsic satisfaction. In addition, extrinsic satisfaction was the main driver of talent acquisition. Although extrinsic satisfaction has its role in predicting quantity of work (e.g., Cerasoli et al.,

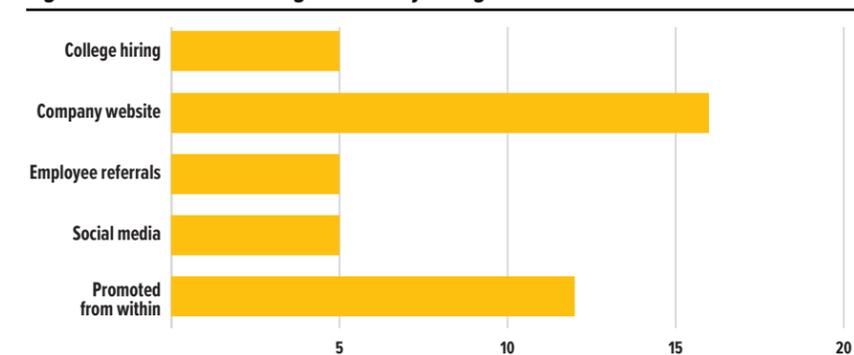
**Figure 1. Most Important in Making Them Want to Leave Their Job**



**Figure 2. Average Performance Level (Self-assessment) by Hiring Source**



**Figure 3. Tenure with the Organization by Hiring Source**



2014), intrinsic satisfaction is a unique and sustainable predictor of quality of work. As organizations embrace sustainability, intrinsic satisfaction or motivation should be leveraged as an organization's workforce competitive advantage.

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## Inflation is scary! Value investing and Maryland 529 plans can help

Aleksandr Olshanskiy  
Investment Analyst

The COVID-19 pandemic that started in 2020 sparked an unprecedented flow of money from the government. This broadly based stimulus flowed into every area of the market, sending the market on a wild ride—spurring inflation—and eventually giving rise to a bear market. For Maryland residents who are concerned about market performance and inflation, this paper suggests two ways to respond constructively. First, consider value investing. Second, if appropriate, use a Maryland 529 plan to save for college.

### Value investing outperforms

In 2022, valuations and fundamentals again became important and, as a result, we saw one of the fastest declines in the market since 1970, with U.S. stocks falling into a bear market in June 2022. Performance statistics show that value investing has outperformed growth investing over the past three years, as well as for the year-to-date period that ended August 23, 2022, as measured by two exchange-traded funds (ETFs) shown in Figure 1. The iShares Russell 2000 Value ETF is down only 8.55% versus a 19.42% decline for the iShares Russell 2000 Growth ETF.

Irving Kahn, a champion of value investing, said Considering the downside is the single most important thing an investor must do. This task must be dealt with before any consideration can be made for gains. The problem is that people nowadays think they're pretty smart because they can do something quite rapidly. You can make the horse gallop. But are you on the right path? Can you see where you're going?

It is in down markets that value investors show their mettle. This is because value investors are contrarians who understand risk and buy stocks at a low price relative to their intrinsic value. They understand that preservation of capital requires careful, methodical, and thorough analysis of a stock's fundamentals. The influx of stimulus money into the economy led many investors to believe that no one investor could lose money, but 2022 showed that this was certainly not the case.

The excess stimulus unleashed during the past three years sent M2 (the amount of money in an economy, including cash, checking deposits, and money market securities) skyrocketing to historic levels (see "M2 Supply"). This money significantly increased demand as it poured into stocks, cryptocurrencies, nonfungible tokens, cars, and houses, driving up prices without care for valuations or risk.

Figure 1 : Value vs. Growth Return

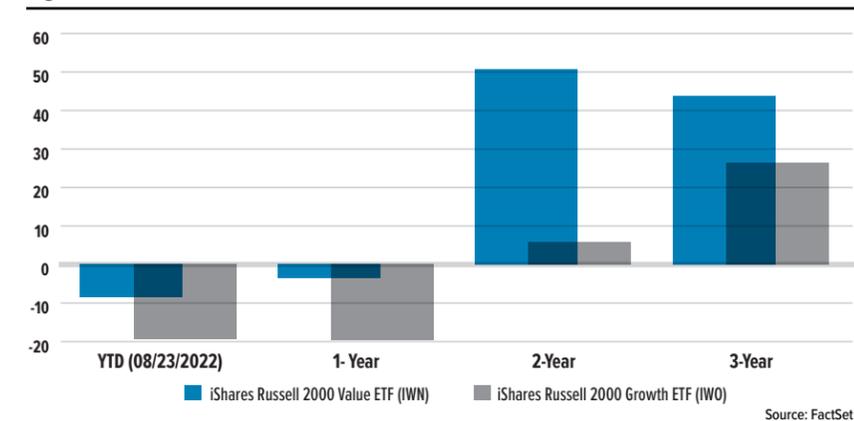
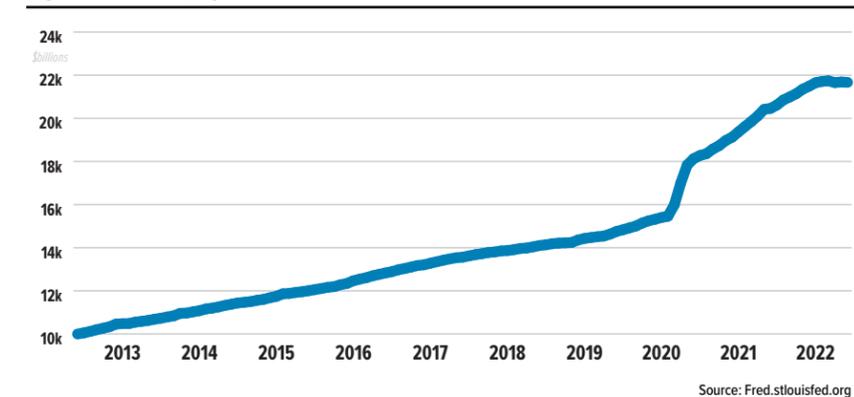
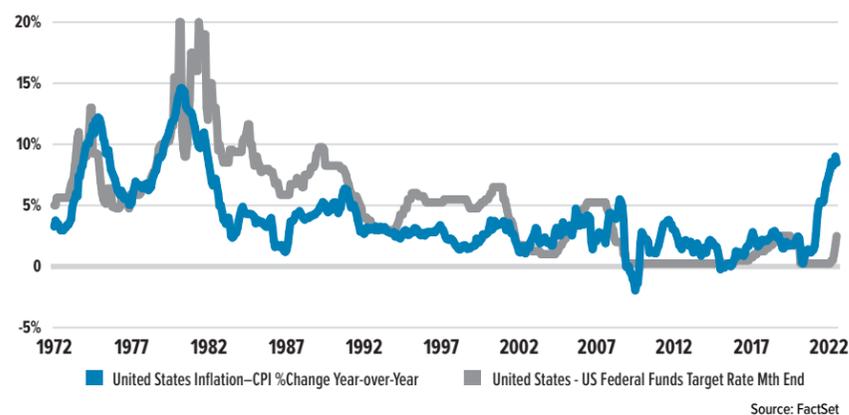


Figure 2 : M2 Supply

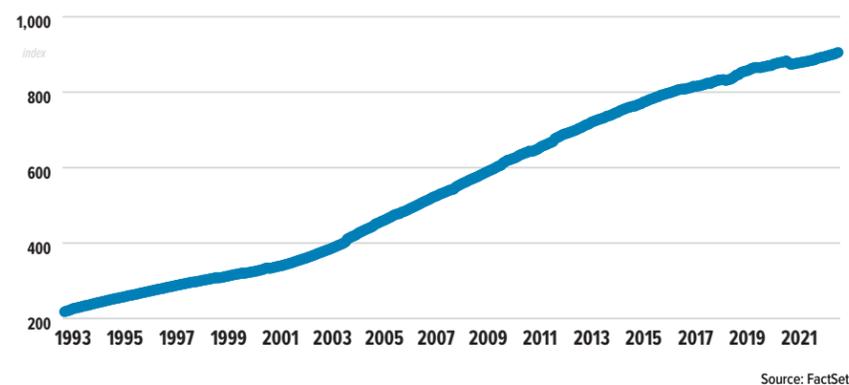


During the past three years, the stock market's rise has signaled to a value investor that there was greed on the street, providing a perfect opportunity to sell and wait for a buying opportunity. An intelligent value investor is prepared to buy the right asset at a good price *only* after evaluating the value and the downside risks within the stock.

**Figure 3 : How the CPI Affects the Fed Funds Target Rate**



**Figure 4 : CPI-U College Tuition and Fees**



**Continuing inflation is a problem**

The consumer price index (CPI) has hit levels untouched since 1981—over 40 years ago. Since 1972, the Fed has combated any inflation over 5% by increasing the federal funds target rate to over 5% as well (see “How the CPI Affects the Fed Funds Target”). We had an 8.48% year-over-year CPI percentage change and a U.S. fed funds target rate of 2.50% as of July 31, 2022. This rate is still well below what the Fed has implemented in the past to combat inflation.

The longer the Fed takes to increase rates, the longer investors could potentially confront inflation. Increasing rates from the September 2022 level of 2.25%–2.50% to over 5% would inflict further pain on the market, lower valuations, increase credit card interest rates, and make mortgages and loans costlier. This potential for further downside due to inflation might warn investors to rebalance and rethink their holdings within their portfolios.

**The case for value investing**

With inflation unlikely to disappear soon—and the stock market under siege, at least as of September 2022—it’s a good time for investors to turn to value investing. They might be able to buy some high-quality companies at attractive prices.

Benjamin Graham, the father of value investing, said, “An investment operation is one which, upon thorough analysis promises safety of principal and an adequate return.” Instead of fearing a bear market, investors should embrace it. Value investors should get just as excited having the opportunity to invest in a high-quality business at a 50% discount as they do when their favorite sweater goes on sale.

The two key principles of value investing are *buying assets below their intrinsic value* and *conducting fundamental analysis*. A security trading at a significant discount to its intrinsic value can offer a margin of safety to provide downside protection. The company might be temporarily out of favor in the financial market due to some solvable company problem, external factors, or another investor misunderstanding. This provides an opportunity to buy a high-quality security at a discount and the chance to receive a good return. Conducting fundamental analysis can be achieved by understanding the company’s financial performance, financial strength, growth attributes, valuations, industry analysis, cautionary signs, and annual

**Table 1 : Maryland Adjusted Gross Income**

Individual	Joint	Minimum Contribution	State Contribution
\$49,999 or less	74,999 or less	\$25	\$500
\$50,000 - \$87,499	75,000 - \$124,999	\$100	\$500
\$87,500 - \$112,250	\$125,000 - \$175,000	\$250	\$250

reports. Understanding these metrics will allow a value investor to make a reasonable and sound investment decision.

Investors today are seeking a sense of security, which is reflected in the outperformance of value companies. Value stocks can act as a hedge against inflation because they are measured more by their current earnings, unlike growth stocks which are valued more on their future earnings. We might be approaching a time when we pay more attention to dividend yields and earnings growth.

**How to counter inflation when saving for college**

The average tuition and fees for college in the U.S. have increased over the past ten years (see “CPI-U College Tuitions and Fees”). Since the COVID-19 pandemic started, many colleges have not increased tuition costs, but the costs of supplies and labor have risen. Inflation has hurt everyone’s purchasing power. Marylanders might have another thing to stress about as colleges are beginning to raise their tuition again.

However, Maryland investors can counter inflationary pressures by investing in Maryland 529 plans to pay for higher education costs at almost any college nationwide. There are two tax-advantaged plans: the Maryland Prepaid College Trust and the Maryland College Investment Plan.

The Maryland Prepaid College Trust<sup>1</sup> allows you to secure tomorrow’s tuition at today’s price. You purchase a contract that will pay a specific value in the future, and the trust will pay benefits in future tuition dollars. For example, if tuition increased by 10% from the year you purchased your contract, the Prepaid College Trust would pay that higher tuition. The Prepaid College Trust is backed by the state of Maryland. Family and friends can also add to your contributions. If your child decides not to attend college, you can delay using your account (up to 10 years after your child’s projected year of college enrollment plus any years spent in active U.S. military service), change the beneficiary on your account to another family member, or request a reduced refund. The Prepaid College Trust is a pooled fund similar to a defined benefit plan.

With the Maryland College Investment Plan,<sup>2</sup> you can save for college on your terms. As a tax-advantaged savings plan, any earnings on your investment in the Maryland College Investment Plan are tax-deferred and are tax-free when used for qualified education expenses. You can decide how much you would like to contribute. Investment options can range in terms of allocations, with fixed portfolios and portfolios based on expected year of enrollment. These funds are used to pay for qualified expenses such as tuition, room and board, books and supplies at colleges, universities, and trade and technical schools. Investment involves a degree of risk and the loss of principal is possible.

Another option can help as well. The Save4College State Contribution Program<sup>3</sup> is designed to help families in Maryland save money for higher education. After a minimum contribution by the individual, the state could contribute up to \$500 based on the family’s Maryland adjusted gross income (see Table 1). For further information, resources, and disclosures on a 529 plan from Maryland, visit [maryland529.com](http://maryland529.com).

**A two-pronged approach to fighting inflation**

Focusing on fundamentals and staying on a steady course with their stock selections can help investors fight inflation and earn a good return on their investments. Costs aren’t coming down when it comes to higher education; Maryland 529 plans can help ease the pressure of soaring education costs.

**References**

1. Maryland Prepaid College Trust
2. Features & Benefits of the Maryland Prepaid College Trust
3. Save4College State Contribution Program



## Trusted Insiders and the Temptation to Talk: Preventing Unauthorized Disclosures

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In the digital age, security must be a top priority for organizations and businesses in Maryland (MD) and the DC-Maryland-Virginia (DMV) region. One of the greatest challenges in security is mitigating potential damage from trusted insiders who leak information or create a security breach of proprietary information. Reducing the risk of these sources disclosing trade secrets is a critical part of maintaining security. This research discusses motivations behind employees disclosing proprietary information and assesses how to mitigate this risk. Adoption of recommendations from this study by organizations and businesses throughout the DMV can alleviate losses and reputational damage to the organization.

### Shifting from Insider Threat to Insider Risk Paradigm

The insider threat paradigm is a philosophy that has traditionally governed internal risk assessments. This philosophy considers employees as liabilities who should be closely monitored for misconduct. Considering employees as part of the problem rather than the solution is both demoralizing and ineffective and results in issues such as resentment, disempowerment, and alienation; these psychosocial responses are at the causal root of disclosures of information that is proprietary or protected in some manner. Furthermore, the subsequent approach to handling breaches becomes a reactive model in which interventions are only pursued after damage has already occurred (ARLIS, 2022).

Alternatively, organizations should shift to an insider risk paradigm, in which proactive measures are taken to deter, detect, and mitigate breaches before irreversible damage is done (Scala, 2021). *Insider risk* differs from *insider threat* in subtle but important ways. Insider risk assesses nuanced degrees of risk instead of a binary threat/non-threat categorization. Risks are dynamic occurrences that evolve over time; correspondingly, risk evaluations must also be fluid. Insider risk recognizes that threats cannot be completely neutralized; instead, they are mitigated with proactive solutions. Additionally, insider risk is a multidimensional approach that considers the influence of individual, contextual, organizational, systemic, and enterprise-level variables. Ultimately, the goal of the insider risk paradigm is to address future vulnerabilities before they are exploited (Jones et al., 2021).

Proactive policies focus on the need for interventions to occur prior to the onset of a breach. Enforcing proactive policies involves encouraging employees to safeguard protected information and emphasizing positive deterrence, which is a prevention mechanism that incentivizes constructive security behaviors (Osterritter, 2022; ARLIS, 2022). Employee responses to these policies, particularly those surrounding electronic and behavioral monitoring, are dependent on the perception of their purpose. When employees perceive that security policies are intended to improve their performance and support organizational goals, adherence to the policies is more likely. Conversely, employees are likely to respond negatively to policies that are designed with punitive actions in mind (Borum et al., 2005). This paradigmatic shift is an important factor to consider for improving the overall security culture.

### Organizational Security Culture

Toxic organizational culture can create an atmosphere in which employees feel demoralized, resentful, and alienated, which increases the risk of breaches. Disgruntled current or former employees represent a significant demographic of individuals who may leak information as a direct result of unresolved feelings (Sims, 2015). This is aggravated by the implicit expectation of employees to adhere to normative social behaviors. Social conformity is a key principle in organizational culture where employee behaviors are dictated by the collective norms of the agency (Calvin, 2019). However, a problem that can arise from social conformity is a failure to address concerning security behaviors. Employees may be hesitant to report behaviors if viewed as accusatory and resulting in social ostracization.

Combating toxic organizational culture requires employees to be allowed to actively participate in generating solutions. When management expresses their faith in the value of employee involvement in security, employees are more likely to adhere to security policies (Borum, et al., 2006). This inherent trust in employees can be used to foster security assurance behaviors (SABs), which are learned behaviors that can improve organizational security. The foundations of SABs are preparedness to handle security

issues, responsibility for the outcomes, trust in the good faith of management, and adherence to cultural norms within the organization (Ahmad et al., 2019). SABs are instrumental in the prevention of information leaks, and a positive example set by organizational leadership is vital.

The capacity of leadership to influence security culture should not be understated; leaders must epitomize the values of the organization so that social conformity can have a positive effect. Leaders should monitor cultural conditions of their organizations and engage in mutual accountability to safeguard a lack of toxicity. Fostering positive culture requires leaders to promote employee respect and self-efficacy; those who feel connected to purpose in the work environment are more likely to align themselves with organizational values. Leaders should also be aware of any implicit biases affecting their organization. Efforts should be made to distribute work equitably, aligned with relative skill sets and competencies of employees (Wilson et al., 2022). Direct employee engagement from leadership results in greater transparency and job satisfaction. These interactions should occur not merely as bureaucratic exercises but as genuine endorsements of professional growth (Walsh, 2021). Such a democratization of security culture can also be supported by establishing a socio-moral climate (SMC).

SMC is a cultural structure in which organizational practices center on collective communication, problem-solving, teamwork, and prosocial behaviors (Trzeciak, 2021). SMCs are associated with a greater sense of empowerment and loyalty in employees. Furthermore, the extent to which employees perceive just treatment is positively correlated with trust as well as conformity with organizational expectations. There are five components of an effective SMC: (1) constructive conflict resolution concentrating on openly confronting issues; (2) appreciation and care for employees expressed by their superiors; (3) open communication with participation encouraged by all employees; (4) allocation of assignments based upon relative capabilities and trust in employee competency, and (5) empathy for employee needs balanced against organizational goals (Trzeciak, 2021).

### Current Issues with Training

Effective and well-rounded training is a necessary aspect of every organization. Lack of repeated practice with training concepts causes the value of training to degrade over time (Ahmad et al., 2019). Furthermore, employees will only internalize actionable information if it is captivating and immersive (Calvin, 2019). To promote engagement, training must be interactive and interesting while reducing cognitive overload (Dehlinger et al., 2021). Training materials can be modified by segmenting long sections, providing users with immediate feedback related to content, and reducing the length of lessons. Focusing on participatory, experiential learning will also improve memory retention (Banfield & Wilkerson, 2014).



*Employees need reliable reporting mechanisms. Employees may be less likely to report security concerns out of fear of retaliation.*

In addition to security-related training, management is a central part of a positive work culture and should receive leadership training. Emotional and social intelligence are key facets of effective relational leadership. Improving communication skills and empathy responses will strengthen the relationships between managers and employees, resulting in greater productivity and job satisfaction. Leaders should work collaboratively to develop strategies for handling common security-related challenges faced by their respective divisions (Nzinga et al., 2021). One way to maximize employee and manager engagement with training is to use gamification principles.

In this context, gamification is the application of game-like design artifacts and system processes to strengthen employees' motivation, which in turn encourages learning, self-efficacy, and increased compliance with organizational security initiatives. The use of storytelling and rewards

makes the experience more stimulating by imposing challenges that inspire curiosity and, consequently, greater internal motivation. Employing gamification in training can improve security knowledge for employees and reduce organizational security breaches. Feedback can be provided in the form of leaderboards, points, performance metrics (relative to the objective), and other features to indicate progress (Banfield & Wilkerson, 2014). Gamification supports learning, increases productivity, and helps cultivate a collaborative environment. Subsequent debriefing highlights skills that employees subconsciously absorbed while engaging with the training (Hung, 2017). Gamification is particularly effective when the content is applicable to employee life outside the workplace and can be achieved with in-game simulations and personalized feedback (Applicability, 2022).

### Recommendations for Mitigating Insider Risk

Synthesizing these themes leads to four broad recommendations for reducing the risk of breaches from trusted insiders.

**Training needs to be job specific.** Training should occur regularly and align with specific job tasks. To heighten engagement, training should be gamified to promote greater interactivity and absorption of information. Casual, unengaged progression through training lessons can be prevented by fostering content interaction, answering quiz questions, and demonstrating understanding of the material. Additionally, training should be reasonably challenging. If training is too easy, employees will progress quickly without much thought for the material. If it is too difficult, they will become frustrated. As a result, employees should apply critical thinking skills in an appropriately challenging way.

**The working environment must be addressed.** Fostering an environment of transparency, recognition, and fairness is essential. Transparency can be emphasized through clear lines of communication between employees and employers and among colleagues. Employee-employer communication can be strengthened via a complaint or suggestion process for employees to bring issues to management's attention. Transparency requires a level of trust between leadership and employees where individuals feel comfortable discussing concerns that arise; open-door policies may help achieve this.

**Management must serve as behavioral and attitudinal role models.** Managers play an essential role in security-related actions. They may also believe themselves to be knowledgeable and no longer need training. The unfortunate implication of this perception is that managers may be more likely to breach information due to feelings of superiority and imperviousness from consequences. Because of their importance to organizations, managers should have additional training to support building management styles and leading through shifts in work environments. A mentorship program between managers and employees can also instill a greater connection with the organization. By connecting managers with lower-level, newer employees, both parties can create different perspectives on approaches to security and instill a greater sense of loyalties to their organization.

**Employees need reliable reporting mechanisms.** Employees may be less likely to report security concerns out of fear of retaliation. However, these concerns can be mitigated through an anonymous reporting mechanism. Not revealing identities may encourage greater awareness of concerns surrounding colleagues, which may increase rates of attribution or even stop disclosures before they occur. This could take the form of a webpage on the organization's network that allows employees to report their concerns, which may then be investigated.

Overall, these recommendations are part of a larger study, derived from literature and expert interviews, and can be implemented immediately in organizations within and beyond the DMV. By utilizing these strategies, job-specific security awareness will increase across the DMV. As a result, MD and DMV businesses can save time, money, and resources, and increase their competitive advantage. Ultimately, the health of an organization depends on the trust of its insiders, and it all starts from the inside out.

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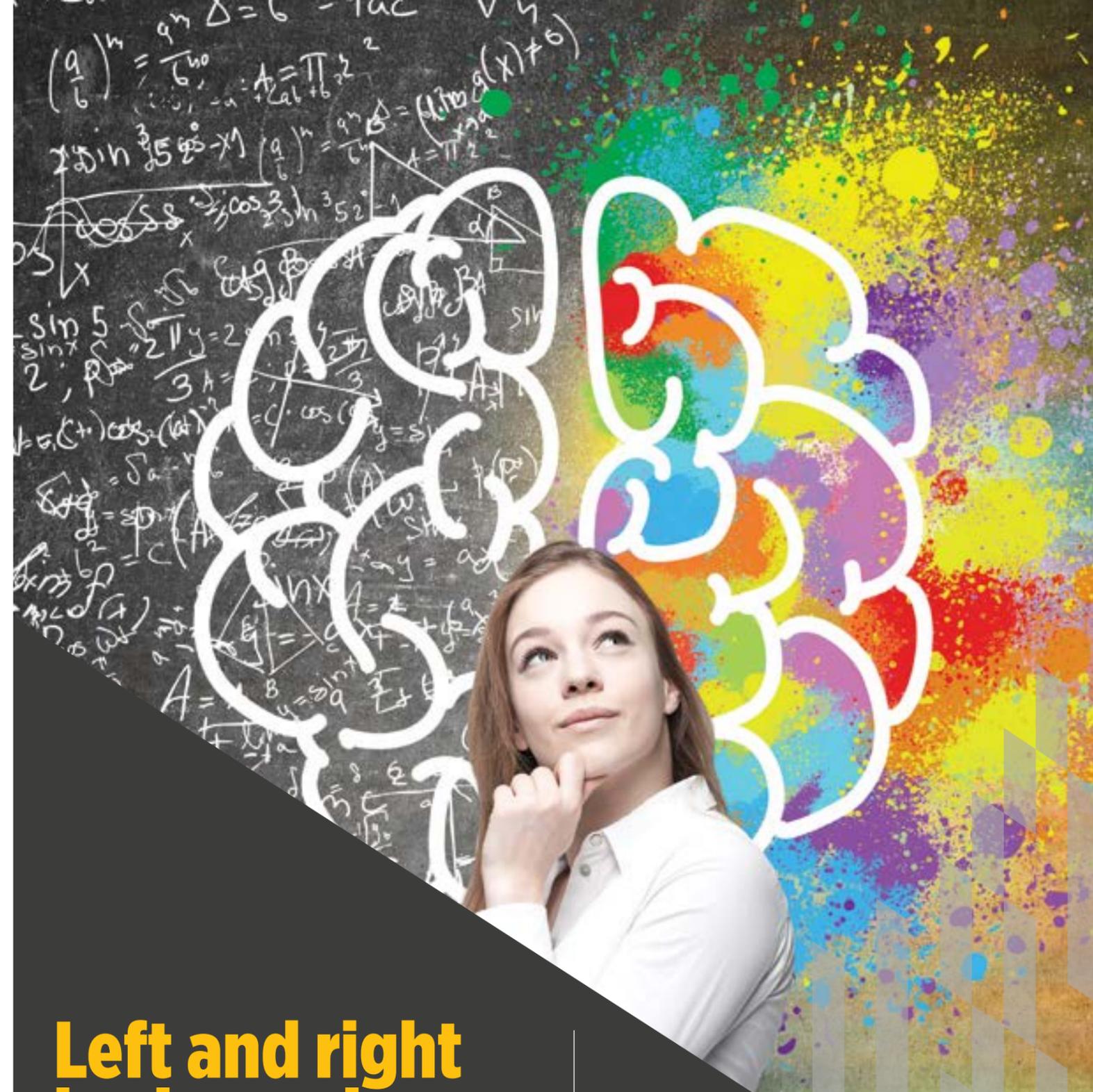
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## Crypto Regulation – Who’s on First?

Paul P. Andrews

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*The Call to Crypto Action.* Back in February of this year, the CFA Institute Systemic Risk Council (SRC) urged congressional and regulatory action on stablecoins. In a letter to Treasury Secretary Janet Yellen and members of the Financial Stability Oversight Council (FSOC), we urged the group to act on growing risks to U.S. financial stability posed by unregulated crypto assets, particularly, the wild west of stablecoins. We noted the report by the President’s Working Group in the U.S., that recommended Congress address mounting crypto risks by passing new legislation that would address needed regulations on stablecoin products in particular.<sup>1</sup>

The SRC strongly supported the need for a prompt legislative response, but worried Congressional delays would make it necessary for other regulators and policymakers to simultaneously pursue other options. We proposed a two-pronged strategy that included FSOC moving quickly to designate stablecoins as systemically important payment, clearing, and settlement activities, while various FSOC member agencies, including the banking regulators, the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) using their existing enforcement authorities to regulate stablecoins and other crypto assets subject to their jurisdictional mandates. Importantly, the SRC asked that FSOC members work more collectively. To date, progress on these fronts remains slow. It feels like the policy version of the famous Abbott and Costello bit -Who’s on First. If only it were that amusing.

*U.S. Congressional Action.* For its part, Congress has been on a torrid, but thus far, ineffectual pace to introduce dozens of bills and resolutions covering all corners of the crypto phenomenon. From draft legislation on stablecoins, to a new securities law regime covering digital assets, legislative discussions have led to few changes. Since passage of the Infrastructure and Investment Jobs Act in 2021, the crypto industry recognized the potential for new laws to favor and give credibility to emerging technologies and crypto products. While nothing of note has yet passed congressional muster, the number of lobbyists writing checks and legislators coveting the title of crypto innovator has been fascinating political theatre to watch.

Many of the crypto “assets” being produced are ill conceived and not ready for conventional markets. Meanwhile, regulators have generally struggled to keep up with rapidly

emerging technologies that support these new products. There is a growing fear of politicians playing into the commercial interests of crypto industry players seeking limited oversight and regulation. To make matters even more challenging, the complexity of what falls under the crypto asset “umbrella” is formidable. It includes central bank digital currencies, stablecoins, thousands of individual e-tokens like bitcoin and related futures contracts and Exchange Traded Funds. There are also a growing array of private and public companies involved in the crypto infrastructure and operational arena. These business “nodes” as the SEC refers to them, are the physical and virtual components that develop blockchain and other technologies and the platforms that facilitate trading, clearing and custody of crypto assets. Many of these virtual players are located offshore and can migrate, sometimes stealthily, to various jurisdictions around the globe. So far, we have seen a great deal of political talk but no real action.

*U.S. Treasury.* Recent coverage of U.S Treasury activities around crypto suggest a series of reports will soon echo growing concerns and the call to regulatory action. According to the Washington Post, “these reports will highlight the economic danger of cryptocurrencies in several key areas, including the fraud risks they pose for investors... Treasury’s assessments conclude that cryptocurrencies do not yet pose a stability risk to the broader financial system – but that the situation could change rapidly.”

*The Federal Reserve.* The variety of government authorities eyeing the crypto sector also includes the U.S. Federal Reserve (“Fed”). In a recent statement, the Fed forewarned member banks “that prior to engaging in any crypto-asset-related activity, banks must ensure such activity is legally permissible and determine whether any filings are required under applicable federal or state laws.”

Among other things, the Fed noted that supervised banks that wish to undertake crypto-asset-related activities, inform their lead supervisory point of contact before they engage in these actions. The Fed notice acknowledges the potential opportunities of the crypto sector to better serve customers but warned “... crypto-asset-related activities may also pose risks related to safety and soundness, consumer protection, and financial stability.”

It seems odd to us that the onus is on the member bank to decide whether they have adequate risk management and internal control systems to conduct crypto-asset activities in a “safe and sound manner.” The bank is similarly

obligated to ensure such activities are consistent with all applicable laws, including applicable consumer protection statutes and regulations. This admonition gives the appearance that all necessary laws and rules are already in place and that the member bank simply needs to confirm their crypto readiness with relevant supervisors. This conflicts with the view that the needed regulations – both extensions of existing rules and a potentially redesigned set of crypto specific rules – are still missing. The SRC has heard many calls for a regulatory design that addresses the novel technology risks, additional complexity of various crypto activities and can account for a highly fractionalized, 24/7 cross-border market.

**Bank Regulators.** Last November, the FDIC and Fed released an interagency statement regarding their crypto-asset policy initiative, pledging to provide greater regulatory clarity over the year ahead. Then in early 2022, lawmakers sent a letter to the Office of the Comptroller of the Currency (OCC) directing it to coordinate more with the Fed and FDIC. It also directed the OCC to withdraw several interpretive letters issued since 2020 which permitted banks to engage in crypto-related activities such as offering crypto custody, holding stablecoin reserve deposits and facilitating stablecoin payments. Congress worried that the OCC letters effectively permitted banks to engage in crypto activities without proper oversight and risk management systems necessary to deal with a unique set of crypto-specific risks that “have grown more severe in recent months.”

**The Securities Regulators.** Meanwhile, the Chairman of the SEC, Gary Gensler, and the Chairman of the Commodity Futures Trading Commission (CFTC), Rostin Behnam, both members of the FSOC, were taking regulatory action. They have both indicated that the task of crypto oversight is high on the list of priorities for them and all global market regulators. Both are already using many touch points on crypto regarding regulated futures contracts, regulated ETF funds and the many publicly traded companies who are involved with crypto infrastructure. Understandably, there are various jurisdictional issues among an entire network of global regulators scrambling to address emerging products and technologies affecting cross-border markets.

Both the SEC and CFTC are quickly moving to understand and sort out the regulatory considerations, including those pertaining to various new and evolving technologies critical to trading, clearing and custody. These activities are not always covered by securities law unless they are public

companies, and many include risky and unregulated lending platforms that facilitate lending/borrowing the vast universe of alternative or alt coins. Both agencies noted they are doing their best under current regulatory authority and enforcement powers but acknowledged there are regulatory nuances and gaps that must be addressed as crypto activities expand. Most importantly, the interplay and boundaries of jurisdictional authority must be clear and collaborative among U.S. regulators.

**CFA Institute Systemic Risk Council Learnings.** This brief synopsis exemplifies the uncertain and disjointed nature of the U.S. effort around crypto oversight. As these new assets and markets continue to evolve and accelerate in acceptance, the critiques of FSOC members and Congress for moving too slowly will only grow louder. Before long, these entities will need to do more than simply reiterate new vigilance and scrutiny of crypto asset developments.

One thing is certain – the new crypto world is a complicated topic for markets and regulators to digest. For its part, the investment management industry is aiming to establish if and which parts of the crypto industry will become established and part of traditional asset / investment strategies. Regulators seek to balance market innovation with regulations that are fit for purpose while desperately trying to avoid another dot.com moment. Meanwhile, investors of all sorts have great fear of missing out, given the trading potential and remarkable gyrations in value experienced by various crypto assets.

No matter your perspective, there must be a sense of market integrity and regulatory certainty with crypto. To become mainstream, these markets and assets must bridge the current gap in transparency, accountability and regulatory certainty. Whether crypto refers to a theoretical CBDC (Central Bank Digital Currency), an Alt coin of mysterious value, or an NFT (Non-Fungible Token) representing ownership in digitized art, bravery to invest will not decide your fortune. Common sense, clear regulation and proper market structure will.

*This article originally appeared in Nasdaq.*

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## Grade Disparities in Principles of Microeconomics Before and During COVID-19

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### Introduction

In March 2020, over 1,000 college campuses across the United States hastily moved face-to-face courses online, changing the lives of over 14 million students (Hess 2020). In Maryland alone, all eleven of the University System's colleges, comprising over 170,000 students, switched to online. One concern during the COVID-19 pandemic was that the most vulnerable students would suffer the greatest negative educational consequences because of a lack of reliable internet access or quiet spaces to study or would face greater demands on their time because of the need to help with family.

Long before the pandemic, research in economics found that men scored higher and had loftier expectations of their grades in economics courses (Ballard and Johnson, 2005). The work of Hayley et al. (2007) however, found that students taught by a same-gender professor fared significantly better than those taught by an opposite-gender professor. These findings coupled with the underrepresentation of female faculty in economics helps to explain female students' grades in economics courses and supports programs to recruit and retain women as they can have a meaningful impact on representation within the major. Similar challenges exist in understanding how race intersects with decisions regarding academic areas of study and performance. Comparing racial groups, students of color score lower in principles of economics courses than white students as supported in the work by Swope and Schmitt (2006), Elzinga and Melaugh (2009), and Engelhardt et al (2021).

Studies such as these expose the disparate experiences across student groups in an economics classroom and how they can create a "pipeline problem" that can further undermine opportunities for student success (Bavishi et al. 2010). In the United States, only 30% of undergraduate economics majors are women and African American and Hispanic students represent just 5% and 12%, respectively (Hoover and Washington 2021; Avilova and Goldin, 2018). And when COVID happened, a concern of many in academia was that it would widen the performance gap and further negatively impact representation within the discipline. However, recent studies looking at the impact of the pandemic on student outcomes have found that socioeconomic, racial, and gender disparities did not increase and in fact shrank during the pandemic (Engelhardt et al., 2021; Kofoed et al., 2021).

Table 1: GPA, Pass Rate, Withdrawal Rate

	Grade MicroEcon	GPA Other Classes	Pass Rate	Withdrawal Rate	Observations
Total	2.479	2.813	77.80%	4.90%	3114
Fall 19	2.469	2.753	79.70%	3.90%	961
Fall 20	2.43	2.855	74.40%	7.40%	989
Spring 20	2.611	2.906	80.80%	1.80%	624
Spring 21	2.423	2.726	77.50%	5.70%	540

Table 2: Race, Gender, Athletic Status on Grades

	Grade MicroEcon	GPA Other Classes	%Sample
<b>Race</b>			
Asian	2.523	2.857	6.50%
African American/Black	2.265	2.657	29.20%
Hispanic/Latino	2.346	2.633	8.50%
Other	2.55	2.845	8.00%
White	2.609	2.923	46.90%
<b>Gender</b>			
Male	2.403	2.733	56.20%
Female	2.578	2.915	42.90%
<b>Athlete</b>			
Non-Athlete	2.473	2.804	95.60%
Athlete	2.608	2.998	4.40%

This paper builds on this work utilizing data over a longer period from a large metropolitan public university in the mid-Atlantic region where we find that disparities in microeconomic principles courses by gender, race, and household income exist and were worsened during the COVID-19 pandemic when courses moved online. These differences are similar across disciplines, suggesting that the grade disparity problem is not unique to economics and that the cumulative effect is larger than estimated here within one discipline. This study also finds that withdrawal rates increased for African American/Black students suggesting that the pandemic had a larger negative impact on their degree completion timeline.

### Descriptive Statistics

The economics department at this large metropolitan university offers both a microeconomic and macroeconomic principles course as separate, non-sequential, semester-long courses. Halfway through the Spring 2020 semester, students and faculty experienced a substantial shock when the university, like many other schools, made the decision on March 10 to move classes online and students did not return to in-person classes that spring or the following academic year.

**Table 3: Semester and Demographic Relationship with Grade on 4.0 Scale**

	(1)	(2)	(3)	(4)	(5)
Interactions	None	Black	Hispanic	Female	LowIncZip
African American/ Black	-.248***	-0.232	-.247***	-.258***	-.242***
	-0.063	-0.152	-0.062	-0.065	-0.063
Hispanic/Latino	-.169**	-.168**	-0.103	-.152*	-.166**
	-0.081	-0.081	-0.144	-0.087	-0.081
White	0.081	0.08	0.082	0.09	0.084
	-0.09	-0.09	-0.089	-0.094	-0.089
Female	.194***	.196***	.195***	.166**	.192***
	-0.049	-0.048	-0.048	-0.069	-0.048
Athlete	0.124	0.127	0.121	0.129	0.129
	-0.105	-0.103	-0.102	-0.104	-0.098
Middle Income Zip	-0.02	-0.02	-0.02	-0.031	-0.022
	-0.061	-0.06	-0.06	-0.063	-0.061
Low Income Zip	-.123***	-.121***	-.123***	-.136***	-0.046
	-0.041	-0.042	-0.04	-0.043	-0.093
Hispanic/Latino*Fall20			0.099		
			-0.247		
Hispanic/Latino *Spring20			-.262**		
			-0.116		
Hispanic/Latino *Spring21			-0.157		
			-0.224		
Female*Fall20				.258***	
				-0.065	
Female*Spring20				0.098	
				-0.108	
Female*Spring21				-.407***	
				-0.084	
Constant	2.464***	2.459***	2.457***	2.479***	2.436***
	-0.17	-0.165	-0.166	-0.189	-0.154
Observations	2832	2832	2832	2832	2832

Standard errors clustered at the professor level are presented below parameters. Dependent variable is grade in microeconomic principles course, on a 4.0 scale and model also includes professor fixed effects, semester controls, semester-income interactions also included in estimations. Full results available upon request. \*\*\* p<.01, \*\* p<.05, \* p<.1.

The data set comprises 3,114 students across all four semesters of the 2019–2020 and 2020–2021 academic years who were enrolled in 69 sections of microeconomic principles. As seen in Table 1, the average grade in the course was a 2.47 on a 4-point scale, between a C+ (2.33) and a B- (2.67). Students’ grades in all other courses were substantially higher, averaging 2.81. Over three-quarters of the students passed the class with at least a C and only 5% of the students withdrew.

From Table 1 it can also be seen that average course grades increased in the first semester of the pandemic (Spring 2020) by almost 0.2 GPA points but fell back to 2.4 for both Fall 2020 and Spring 2021 semesters. Students’ overall GPA in other classes experienced a similar trend. Withdrawal rates followed the same pattern and increased from 3.9% in Spring 2020 to 7.4% in Fall 2020 and then fell to 5.7% in Spring 2021. Enrollment declined from Spring 2020 to Spring 2021, which raised concerns about a change in the makeup of the student body; however, these differences are not statistically different on observable characteristics between the Spring 2020 and 2021 semesters or the Fall 2019 and 2020 semesters.

We also use self-reported demographics from the University to examine differences in grades. We find that African American/Black and Hispanic/Latino students make up 29% and 9% of our sample, which roughly matches the university population. Consistent with the study by Swope and Schmitt (2006), we find that African American/Black and Hispanic/Latino students perform slightly worse on average than their white peers, with a mean course grade of 2.27 and 2.35, compared to a 2.61 for their white peers.

### Econometric Approach

We estimate a student’s grade using equation (1) which includes subscripts for the individual student (i), semester (t), and instructor (j). The main outcomes of interest (Y) are the student’s grade on a 4.0 scale and the probability of withdrawing from the class. To compare pandemic semesters to the pre-pandemic Fall 2019 semester, we introduce the variables Spring20, Fall20, and Spring21, which are binary indicators equal to 1 if the course was during the relevant semester, and 0 otherwise.

Equation (1) is used to test for grade disparities along demographic characteristics using binary measures of self-reported race, gender, and athletic status. Socioeconomic status is proxied by the median household income in the student’s home zip code divided into three equal bins, and binary indicators are used for the lowest two bins (LowIncZip, MedIncZip) compared to the highest bin.

However, the pandemic may have widened disparities based on ethnic group, gender, or socioeconomic status so we also incorporate an interaction term to evaluate. Equation (2) shows an example for Black students, where the indicator for Black students is interacted with each of the three semester variables. For example, the term Spring20\* African American/Black measures the difference in the gap between African American/Black and Asian students between the Spring 2020 semester and the omitted Fall 2019 pre-pandemic semester. Equation (2) is then re-estimated for Hispanic/Latinos, females, and the lowest income bin, where the interaction terms for African American/Black students are replaced with one of these other characteristics.

All models are estimated using instructor fixed effects for eight instructors compared to the ninth omitted instructor. We run a standard ordinary least squares regression and cluster the standard errors at the professor level.

### Results

Table 3 reports the grade estimations, and these are consistent with previously discussed disparities. The results indicate limited change in average grade for all students, with an exception in Spring 2020. Overall, African American/Black and Hispanic/Latino students scored roughly 0.25 and 0.17 GPA points, respectively, below Asian students and these results are statistically significant across models and consistent with Swope and Schmitt’s (2006) findings. We also do however see that female students performed better in the Fall 2020 semester but worse in the Spring 2021 semester, consistent with the findings by Engelhardt et al (2021) as well as Kafoed et al (2021).

Our second model considers how semester and demographic variables impacted a student’s decision to withdraw from the class. These results are presented in Table 4 below and indicate that, on average, withdrawal rates increased by 5 and 3 percentage points in the Fall 2020 and Spring 2021 semesters, respectively. Addition-

**Equation 1.**

$$Y_{ijt} = \beta_0 + \alpha_1 Spring20_t + \alpha_2 Fall20_t + \alpha_3 Fall21 + \beta_1 AfricanAmerican/Black_i + \beta_2 White_i + \beta_3 Other_i + \beta_4 Hispanic/Latino_i + \beta_5 Female_i + \beta_6 Athlete_i + \beta_7 LowIncZip_i + \beta_8 MedIncZip_i + \sum_{j=1}^8 Professor_j + \epsilon_i$$

**Equation 2.**

$$Y_{ijt} = \beta_0 + \alpha_1 Spring20_t + \alpha_2 Fall20_t + \alpha_3 Fall21 + \beta_1 Black_i + \beta_2 White_i + \beta_3 Other_i + \beta_4 Hispanic_i + \beta_5 Female_i + \beta_6 Athlete_i + \beta_7 LowIncZip_i + \beta_8 MedIncZip_i + \gamma_1 Spring20_t * Black_i + \gamma_2 Fall20_t * Black_i + \gamma_3 Fall21 * Black_i + \sum_{j=1}^8 Professor_j + \epsilon_i$$

**Table 4: Semester and Demographic Relationship with Probability of Withdrawing**

	(1)	(2)	(3)	(4)	(5)
Interactions	None	Black	Hispanic	Female	LowIncZip
4	.053***	.038***	.052***	.055***	.055***
	-0.011	-0.013	-0.012	-0.015	-0.013
Spring20	-0.004	-0.004	-0.003	0.003	-0.004
	-0.008	-0.009	-0.01	-0.007	-0.005
Spring21	.035**	0.021	.034**	.032**	0.029
	-0.016	-0.018	-0.017	-0.014	-0.022
African American/Black	.036*	0.009	.036*	.036*	.036*
	-0.021	-0.019	-0.021	-0.021	-0.021
Hispanic/Latino	0.026	0.025	0.022	0.025	0.026
	-0.03	-0.03	-0.02	-0.03	-0.03
White	0.01	0.01	0.01	0.01	0.011
	-0.016	-0.016	-0.016	-0.016	-0.016
Female	-0.003	-0.003	-0.003	0.001	-0.002
	-0.006	-0.006	-0.006	-0.006	-0.006
Athlete	-.026***	-.027***	-.026***	-.027***	-.025***
	-0.009	-0.008	-0.009	-0.008	-0.009
AA/ Black*Spring21		.046*			
		-0.027			
AA/ Black*Fall20		.054***			
		-0.016			
Female*Spring20				-.015*	
				-0.009	
Constant	0.001	0.009	0.002	0	0.001
	-0.012	-0.012	-0.012	-0.012	-0.015
Observations	3077	3077	3077	3077	3077

Standard errors clustered at the professor level are presented below parameters. Dependent variable is the probability of withdrawing from the course and models also includes professor fixed effects and income controls. The semester-race interactions are not presented if statistically insignificant. Full results available upon request. \*\*\* p<.01, \*\* p<.05, \* p<.1.

ally, we see that African American/Black students were initially 5.4 percentage points more likely to withdraw and this increased withdrawal faded in Spring 2021. Female students were about 1.5 percentage points less likely to withdraw during the first semester – consistent with our general finding that female students were less negatively impacted by the switch to virtual education.

### Conclusions and Policy

Our analysis supports previous findings on the impact of the COVID-19 pandemic on Spring 2020 grades and provides two new contributions to the literature. First, we introduce new evidence on the second year of the pandemic showing that disparities by race, gender, and home zip code persisted but faded out in the semesters following. Also, these findings are not unique to the economics department; grade differentials were consistent with a student's overall academic performance in other courses so the one-eighth- to one-quarter-point decrease in course GPA that we find, when magnified across all courses, generates a meaningful impact on a student's overall GPA that disproportionately hurts students of color and students from low-income households.

The findings from this research underscore the need for policies and programmatic changes to address and remediate pre-existing disparities as well as the growing disparities caused by educational disruptions. For example, a 2021 Department of Education Report highlights the national findings that the pandemic, "...deepened the impact of disparities in access and opportunity facing many students of color in public schools, including technological and other barriers that make it harder to stay engaged in virtual classrooms". And these findings are consistent with what happened in Maryland where in-person and full-time learning was 15 percentage points lower for students of color, contributing to widening educational disparities such as those reported on 2021-2022 science proficiency tests. Suggested changes include the expansion of techniques used in Maryland during the COVID-19 pandemic when both the University of Maryland and Towson University focused funds to help low-income students secure technology-related needs, increased the hiring of more tutors and educational specialists, provided access to technology and training for both students and educators, and utilized strategies from the encouragement studies found in the economic education literature (Li 2018; Carrell and Kurlander 2020; Porter and Serra 2020).

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## Maryland's Housing Market since COVID-19: A Macro View

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During the summer of 2022, worries about the housing market in the U.S. reached a crescendo. It was easy to find headlines referring to an impending crash, a popping bubble, or perhaps more modestly, a slowdown from a historic surge in home prices. Residents of Maryland perhaps wondered, “how will this affect our state?” One way to answer that question is to take a “macro” big-picture view of Maryland’s housing market. Data on housing prices, personal income and housing inventory levels, and other factors provide useful insights into Maryland’s experience. The data, too, give clues about where Maryland housing prices may head in 2023.

### Economic Decline Follows a Boom?

The first half of 2022 felt like a bust. The war in Ukraine, the inflation rate, gas prices, and just about everything seemed to be going against the U.S. economy. In the first quarter of 2022, real gross domestic product (GDP) in the U.S. contracted by about 1.6% and then fell another 0.6% in the second quarter.

However, if the first half of 2022 was a bust, the year 2021 was most assuredly a boom. A boom of historic proportions, in fact. Real GDP for the U.S. grew by 5.7%, the highest annual growth rate our country has experienced since 1984. Maryland’s economy also boomed, with state GDP increasing 4.2% over the year. Table 1 compares these numbers to GDP growth over the first quarter of 2022, as well as the average over the previous eight years.

For the U.S., the growth rate in 2021 was more than two times the average over the period from late 2012 through 2020. Maryland also experienced a remarkable jump in its growth rate. The 2021 rate of 4.2% was *four* times higher than the previous eight-year average for Maryland. Of course, the strong performance of both the U.S. and Maryland in 2021 makes the contrast with early 2022 all the more alarming.

### Maryland House Price Boom

The negative GDP numbers in early 2022 helped raise concerns about housing markets. And, after the remarkable home price appreciation that began in late 2020, it is not a surprise that many have feared that we are in a bubble just waiting to be popped. Figure 1 displays the Federal Housing Finance Agency (FHFA) home price index from the fourth quarter of 2012 through the second quarter of 2022 for both the U.S. and Maryland<sup>1</sup>

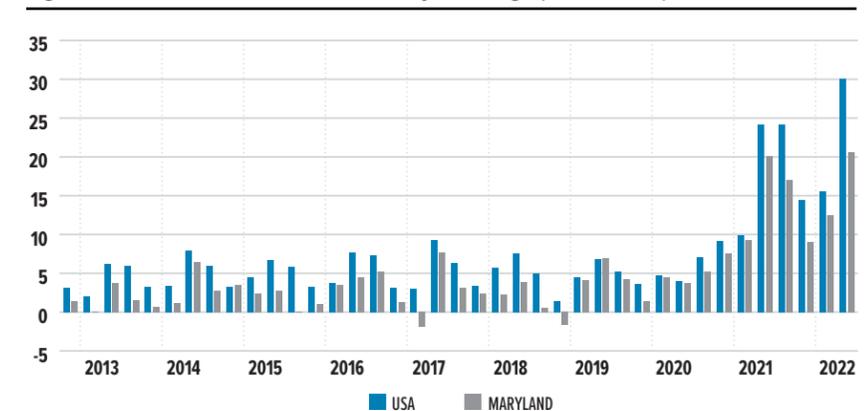
<sup>1</sup> I chose the fourth quarter of 2012 as the start of “recent” history since that is the quarter where average home prices finally recovered from the housing bust during and following the Great Recession.

**Table 1: Real GDP Average % Change: Maryland and the United States since 2012 (Annualized Rates)**

	% Change Maryland	% Change USA
2012 Q4 through 2020 Q4	1.0	2.2
2021 Q1 through 2021 Q4	4.2	5.7
2022 Q1 through 2022 Q2	- 2.5	- 1.0

Sources: U.S. Bureau of Economic Analysis, Real Gross Domestic Product [GDP], retrieved from Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/GDP>, 10/6/2022. Maryland GDP retrieved from <https://www.bea.gov/data/gdp/gdp-state>, 10/6/2022. At the time of this writing, data on both Maryland GDP and US GDP was released for the first and second quarter of 2022.

**Figure 1: FHFA Home Price Index Quarterly % Change (Annual Rate), since 2012**



Source: U.S. Federal Housing Finance Agency, All-Transactions House Price Index, retrieved from Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/>.

As evident from the figure, the growth of home prices in 2021 and the first half of 2022 was remarkable, both in Maryland and the country. Table 2 displays the averages for Maryland and the U.S. since 2012.

As shown in Table 2, home prices did not slow over the first half of 2022, in sharp contrast to the GDP statistics<sup>2</sup> Moreover, the appreciation was widespread across Maryland. Figure 2 displays annual rates of home price appreciation for each county in Maryland, extending back to 2015 (unfortunately, data for the first half of 2022 are not available at the county level). In most counties, the pattern of price appreciation over those years is similar to Maryland’s overall experience.

<sup>2</sup> The reader may wonder how recent home price appreciation compares to the early 2000s. The average growth rate for Maryland from 2000 through 2006 was 12.6%, while the average for the U.S. was 7.7%.

**Figure 2: FHFA Home Price Index Annual % Change for Maryland Counties since 2015**



Source: U.S. Federal Housing Finance Agency, All-Transactions House Price Index, retrieved from Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/>.

**Table 2: FHFA Housing Price Index Average % Change: Maryland and the United States since 2012 (Annualized Rates)**

	% Change Maryland	% Change USA
2012 Q4 through 2020 Q4	2.9	5.2
2021 Q1 through 2021 Q4	13.9	18.2
2022 Q1 and 2022 Q2	16.5	22.8

Source: U.S. Federal Housing Finance Agency, All-Transactions House Price Index, retrieved from Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/>.

### A Maryland Home Price Bust?

The high rates of home price appreciation over 2021 and the first half of 2022 in Maryland raise at least two questions. What drove the appreciation? And, are prices headed for a reversal? To address both questions, we can look at both “demand-side” variables—personal income in Maryland and population growth—and “supply-side” variables, such as data on building permits and housing inventory levels.

Let’s look at the demand side first. Figure 3 shows aggregate personal income for Maryland since 2012.

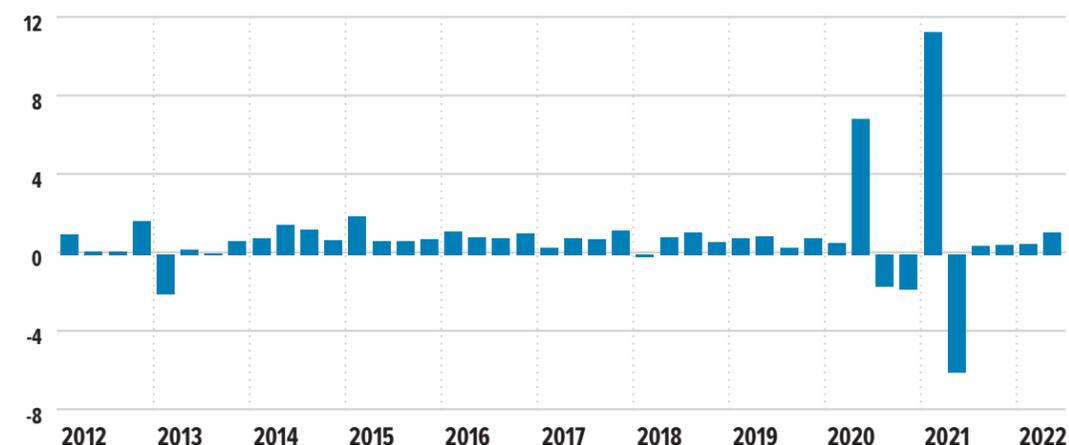
With respect to personal income, we can clearly see the effect of the stimulus bills in 2020 and 2021, but it seems unlikely that the \$600 or \$1200 stimulus checks drove home purchases during this period. Personal income did get a boost in the second quarter of 2022, but growth rates since the third quarter of 2021 appear to be similar to pre-2020 rates. Similarly, population growth in Maryland has essentially been zero since early 2020, implying that variable does not help explain recent housing price increases (population data are available from census.gov).

On the supply side, data on building permits in Maryland also failed to yield a clear-cut association between building permits and home prices. The rate of permitting increased in late 2020 and early 2021 but leveled off after that. If permits are a leading indicator of home price changes, the rise over those months should predict a decline in prices later. That does not appear to be the case, at least through August of 2022. Overall, the volatility of permit growth since 2012 suggests little correlation with home price growth over the past 10 years (permit data are available from census.gov; a detailed figure is available from the author).

With additional information on the supply side, however, a culprit emerges. First, home vacancy rates in Maryland were noticeably lower in both 2020 and 2021. The average from 2012 through 2019 was 1.8%. The average between 2020 and 2021 was half that—0.9% (these data are also available from census.gov).

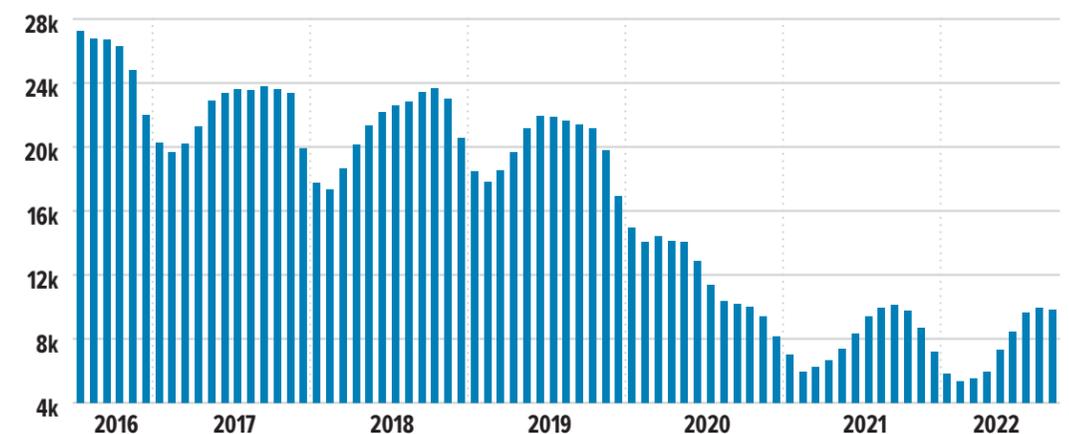
Inventory, too, fell substantially. As displayed in Figure 4, since the end of 2019, the number of listings fell 42%. While inventory ticked up during the summer of 2022, the levels are well below those seen before the COVID-19 pandemic (the inventory data extends through September 2022).

**Figure 3: Personal Income in Maryland Quarterly % Change 2012–2022 Q2**



Source: Retrieved from U.S. Bureau of Economic Analysis, 10/6/22. SQINC1 State quarterly personal income summary: personal income, population, per capita personal income.

**Figure 4: Housing Inventory: Active Listing Count in Maryland per Month since 2016**



Source: Realtor.com, Housing Inventory: Active Listing Count in Maryland [ACTLISCOUMD], retrieved from Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/ACTLISCOUMD>, 10/6/22.

### Looking Ahead

The macro data for Maryland through the first half of 2022 suggest housing prices were not quite “busting,” as of that point in time. Indeed, housing prices continued to increase through the first half of 2022, on a pace comparable to that of 2021. The pace of that increase, too, was notably higher than in the years before the COVID-19 pandemic.

As to what the future holds for Maryland housing markets, we can conjecture based on the macro data highlighted in this article. First, demand-side variables over the period 2021 to mid-2022, such as personal income and population growth, did not appear to be behind the surge of home

prices over that period. We would expect increasing population and income to drive home prices higher. Second, housing inventory and vacancy rates in Maryland imply a very constrained supply side. For example, while in the early summer of 2022 we saw an uptick of inventory, the available housing stock is still well below levels seen only a few years ago.

One variable not discussed in this article is the mortgage interest rate. A continued rise in the mortgage rate should cool the housing market and temper the historic appreciation we have seen over the past couple years. However, the constraints on the supply side imply that Maryland’s housing market may yet avoid a housing price bust.



## Benefits to Firm ESG Focus

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Affinity investing has been gaining in popularity as investors align their social concerns with the allocation of their capital. Investors are interested in evaluating firms not only through traditional financial analysis but also through the lens of environmental, social, and governance (ESG) factors. ESG factors include issues such as carbon emissions and climate concerns, diversity and labor relations, and risk management and compliance. Several companies have created scoring methodologies to determine a company's ESG rating such as MSCI and Bloomberg, and these ratings are used as a supplement to the decision-making process when screening companies by investors and money managers.

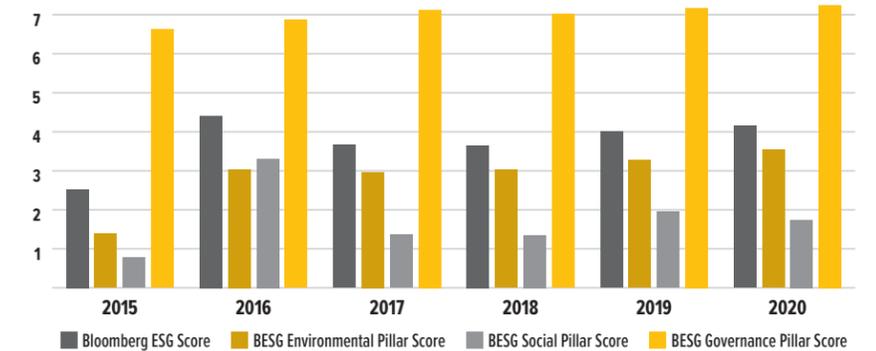
According to EY's Global Private Equity Survey 2021, around two-thirds of investors consider ESG factors. In the United States, sustainable investments reached \$17.1 trillion by the start of 2020, representing 33% of the \$51.4 trillion in total U.S. assets under professional management.<sup>1</sup> The increases in ESG investing have prompted governments to address investment regulation. In the European Union, the Sustainable Finance Disclosure Regulation (SFDR), effective since March 2021, establishes uniform requirements for ESG disclosures. In contrast, the U.S. federal securities laws generally do not specifically address the disclosure of ESG information. That is, the SEC relies primarily on companies to determine what information is material and requires disclosure in their SEC filings. This attention by regulatory bodies highlights the growing importance of ESG investing and fund management.

While this additional layer of evaluation allows investors to make enhanced buying decisions, investors are concerned that ESG companies may sacrifice returns by investing in ESG designated initiatives. Current research offers mixed results. In a 2019 article in *The Journal of Finance*, the authors find that while net inflows increased in U.S. mutual funds which value sustainability, they did not find evidence that high-sustainability funds outperform low sustainability funds.<sup>2</sup> In a separate study, the authors find that ESG strategies do not deliver outperformance

<sup>1</sup> US SIF: The Forum for Sustainable and Responsible Investment, 2020 Report on US Sustainable, responsible and Impact Investing Trends, (October, 2020) <https://www.ussif.org/fastfacts>

<sup>2</sup> Hartzmark, S. and A. Sussman, *The Journal of Finance*, "Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows," Vol. 74, Issue 6 (2019).

Figure 1 McCormick's Bloomberg ESG scores between 2015 to 2020.



once sector biases are removed.<sup>3</sup> Conversely, S&P Global Market Intelligence analyzed 26 ESG exchange-traded funds and mutual funds and found that many funds outperformed the broader market during the first year of COVID.<sup>4</sup>

This study examines Maryland, Virginia, and District of Columbia area firms to determine if the ESG designation is also a value indicator for investors.

### ESG Investment in Maryland

According to the U.S. Government Accountability Office's 2018 report, Maryland is one of a few states that incorporated ESG principles into their pension funds and had instituted guidelines for sustainable investing.<sup>5</sup> The Maryland State Retirement and Pension (MSRPS) was an early signatory to the United Nations Principles of Responsible Investing (UNPRI) in 2008 and is a member of the Ceres Investor Network on Climate Risk and Sustainability, the

<sup>3</sup> Bruno, G., Esakia, M., and F., *The Journal of Investing*, "Honey, I Shrunk the ESG Alpha: Risk-Adjusting ESG Portfolio Returns," (2022), Vol. 31, Issue 3; DOI: <https://doi.org/10.3905/joi.2021.1.215>.

<sup>4</sup> Whieldon, E. and R. Clark, "ESG funds beat out S&P 500 in 1st year of COVID-19; how 1 fund shot to the top," S&P Global, 6 April 2021, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/esg-funds-beat-out-s-p-500-in-1st-year-of-covid-19-how-1-fund-shot-to-the-top-63224550>

<sup>5</sup> U.S. Government Accountability Office, Retirement Plan Investing: Clearer Information on Consideration of Environmental Social and Governance Factors Would Be Helpful, (May 2018). <https://www.gao.gov/products/gao-18-398>

**Table 1: Firm Characteristics**

	Not in an ESG fund			In an ESG fund			Mean Diff
	Mean	Median	Std Dev	Mean	Median	Std Dev	
Net Profit Margin	-6.67	0.01	75.46	-0.07	0.06	2.41	b
Op Profit Margin	-3.54	0.07	31.50	0.04	0.15	2.36	a
ROA	0.01	0.08	0.26	0.14	0.13	0.11	a
ROE	-0.06	0.05	0.48	0.15	0.12	0.34	a
Debt/Assets	0.49	0.44	0.29	0.58	0.60	0.23	a
R&D / Sales	5.32	0.00	66.24	0.05	0.00	0.65	b
Price / Book	2.31	1.51	3.37	3.47	2.32	4.39	a
Assets	1060	133	4150	9773	2274	17314	a

a: p-value <0.01; b: p-value <0.05

**Table 2: Industry Breakdown**

	Not in ESG fund	% of overall sample	In ESG fund	% of overall sample
Consumer Non Durables	10	0.9%	106	10.0%
Consumer Durables	10	0.9%	29	2.7%
Manufacturing	27	2.5%	56	5.3%
Chemicals and Allied Products	27	2.5%	54	5.1%
Computers, Software, and Electronics	101	9.5%	60	5.7%
Telecommunications	15	1.4%	27	2.5%
Utilities	13	1.2%	58	5.5%
Wholesale and Retail Services	47	4.4%	85	8.0%
Healthcare, Med. Equipment, and Drugs	38	3.6%	29	2.7%
Other	56	5.3%	211	19.9%

Council of Institutional Investors, the Institutional Limited Partners Association, and the Sustainability Accounting Standards Board (SASB) Alliance program. In the summer of 2017, the MSRPS ESG Risk Committee was formed to provide leadership, education, and reporting around ESG issues.

In this study, we investigate a sample of 96 firms located in the Maryland, Virginia, and District of Columbia area (MVD). To illustrate the ESG components and index, we present Bloomberg ESG scores for one firm in our sample, McCormick & Company (MKC) in Hunt Valley, Maryland. The Bloomberg ESG valuation tool rates companies' performance or portfolios: the Environmental Score (EVN) addresses many issues related to the business environment and the association between business and society; the Social Score (CSR) measures the firm's social disclosure information; and the Corporate Governance (CG) score reflects issues related to the CG structure. MKC is above industry median in EVN, below median in CSR, and leading in CG. Figure 1 presents McCormick's ESG scores between 2015 to 2020. We believe that MKC's above industry median ESG score reflects their awareness of ESG impacts.<sup>6</sup>

**Data**

Our sample consists of publicly traded firms headquartered in Maryland, Virginia, or the District of Columbia between 2001 and 2021. Each year, we gather mutual fund holdings from Thomson's S12 database. Every mutual fund is then classified based on whether the fund focuses on ESG. For each firm in the MVD area, we identify every year whether the firm is part of an ESG focused mutual fund. ESG focused funds are devised by various firms with the strategy to target companies that employ best practices in environmental, social, or governance areas. We then pull firm and governance characteristics from Compustat, CRSP and Institutional Shareholder Services (ISS). Financial firms are removed from the sample. The final sample with all relevant data represents 96 firms with a total of 1,059 firm-year observations.

Of the firms in the sample, 70.8% of the firms are listed as part of an ESG focused fund at least one year in the

<sup>6</sup> McCormick addressed the importance of meeting their ESGs 2021 annual report: "Any failure to achieve our ESG goals or a perception (whether or not valid) of our failure to act responsibly with respect to the environmental, human capital, or social issues, or to effectively respond to new, or changes in, legal or regulatory requirements concerning environmental or other ESG matters, or increased operating or manufacturing costs due to increased regulation or environmental causes could adversely affect our business and reputation and increase risk of litigation."

sample period. While some firms are only listed in an ESG fund for one year, 22.9% of all firms are listed as part of an ESG mutual fund for every year the firm is part of the sample period. These firms constitute 27.5% of all observations. Over 60% of the ESG fund firms have ESG Scores provided by Refinitiv. These firms, on average, have ESG scores in the "B" grade range indicating a good relative ESG performance and above average transparency in publicly disclosing their ESG material.

Comparing ESG fund firms to those firms not listed in a given year shows distinct differences between the two groups. As shown in Table 1, ESG fund firms are more profitable, have better growth opportunities, more levered and are substantially larger in size. Interestingly, firms not part of an ESG fund have a heavier investment in research and development expenditures.

Exploring the breakdown of industries in Table 2, the majority of non-ESG fund firms are in the Computers, Software and Electronics industry whereas most of the ESG fund firms are in the Consumer Non-Durables industry. Almost all industries are represented in the sample with the exception of the Finance industry (which was removed) and the Oil and Gas industry.

**Analysis**

The question remains whether being part of an ESG-focused mutual fund provides any benefit to shareholders or creates any signals about the firm itself. We perform a regression analysis utilizing return on equity (ROE) and return on assets (ROA) as our two primary variables of interest. Using an ordinary least squares regression (OLS), we regress a firm's ROE or ROA on whether the firm is part of an ESG fund as the main independent variable of interest. Within the regressions, controls are placed for firm size, leverage, capital expenditures, and research and development costs. Both year and industry fixed effects are included as well as robust standard errors.

As shown in Table 3, the coefficients on being part of an ESG mutual fund are positive and statistically significant at the 1% level for both ROE and ROA. When a MVD firm is part of an ESG focused mutual fund, the firm has a 6.1% higher return on equity and a 4.2% higher return on assets compared to a MVD firm not part of an ESG focused mutual fund. Inclusion in an ESG fund indicates the firm has a focus on ESG principles, and this focus represents a clear benefit to the firm and investors.

**Table 3: OLS Regressions**

	ROE		ROA	
	Coeff.	p-value	Coeff.	p-value
Part of an ESG fund	0.061	0.010	0.042	0.002
Log Assets (0/1)	0.040	0.000	0.035	0.000
Leverage	-0.167	0.066	-0.159	0.000
CAPEX	-0.371	0.535	0.740	0.004
R&D	-0.013	0.032	-0.001	0.021
Constant	-0.113	0.074	-0.088	0.041
Year Fixed Effects	Yes		Yes	
Industry Fixed Effects	Yes		Yes	
Adj R-squared	0.344		0.366	
N	1059		1059	

**Conclusion**

Our basic results suggest that firms located in the DMV as part of an ESG designated mutual fund outperform firms that are not part of an ESG fund. While current practitioner and academic research provides mixed results regarding the performance of ESG designated funds, ESG firms in this sample and sample period outperform those that are not. As investor sophistication regarding ESG increases over time, the value creation may be less important relative to the philosophy behind the investment. More studies are warranted to determine issues such as the minimum level of required return for an ESG firm, the importance of each component of the ESG designation, and the impact of the ESG moniker on fund choice.



## Towson University Students' Thoughts on The Current/Future Markets Conditions

Jordan Le

*President for the Towson University Investment Group*

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Cole Hamlett

*Vice President for the Towson University Investment Group*

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*Assistant Portfolio Manager for the Towson University Investment Group*

### Introduction

The Towson University Investment Group (TUIG) conducted a poll to see how well Towson University students understand investments and decision-making. We began our survey by collecting information on basic investing knowledge from our target demographic group, followed by investment decisions and risk tolerance. We received 40 responses in total. We evaluated major and college-specific segmentation of responses to evaluate students' understanding of investing decisions, risk management, and time horizon. With the present macroeconomic backdrop - new investment precedents, an influx of new investors, and new economic limits - the poll provided useful insight into how college students are approaching their decision-making. The survey's key questions included: Do you think we're in a recession now? Do you think the current market conditions will impact your post college career search? Are you hedging against a recession? If you were to invest in equities, what sectors would you focus on?

Towson University is divided into five colleges: the College of Business & Economics (CBE), the College of Health Professions (CHP), the Jess & Mildred Fisher College of Science & Mathematics (FCSM), the College of Liberal Arts (CLA), the College of Fine Arts & Communication (COFAC), and the College of Education (COE). We polled students across the University to get a wide range of responses, and the survey was done in September 2022.

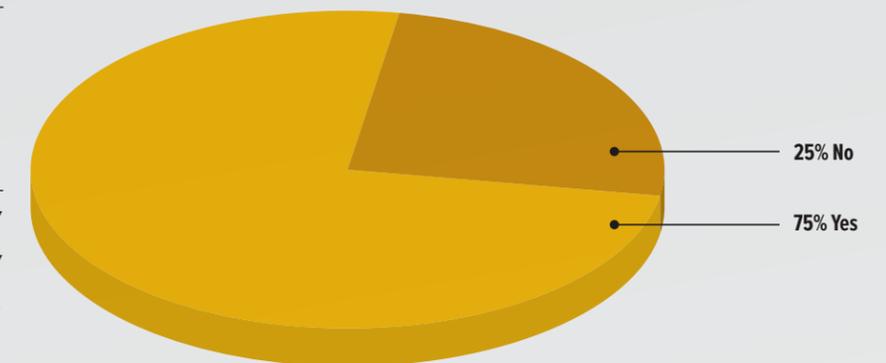
Once the survey was designed, TUIG and its members sent information out electronically, which reached around 75 students, meaning that around 50% of people responded. The respondents were mostly TUIG members and students from the CBE, please refer to the participant background for more information.

The findings assisted us in determining how Towson University students approach investing in terms of asset allocation, sector and company diversity, as well as their individual risk tolerance and time horizon.

### Participant Background

According to our respondents' demographics, 72% are male and 28% are female. In terms of ethnicity, 56.2% were White, 12.5% were Hispanic or Latino, 12.5% were Black or African American, 12.5% were Asian/Pacific Islander, and the remaining were Middle Eastern, Asian, and Black. With 37.5% Juniors and 37.5% Seniors, we noticed a more substantial skew towards Juniors and Seniors. In

Figure 1 : Are You Hedging Against a Recession?



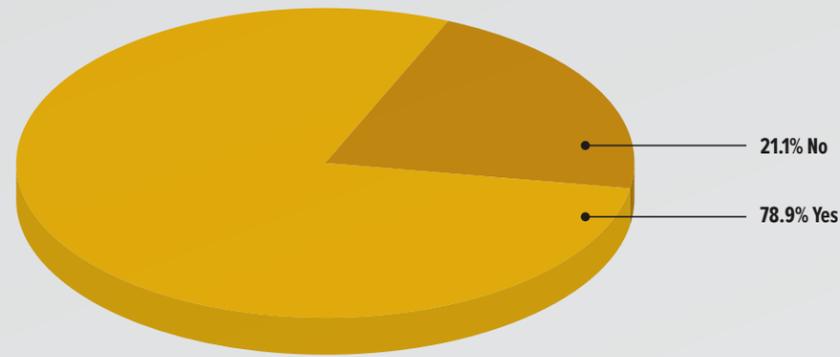
terms of employment, 37.5% are working, 25% do not actively work, and many students are unemployed but are actively seeking work. Approximately, 64% of survey takers were from the College of Business & Economics (CBE), with 48 students from the CBE college making up the majority. We also had a variety of majors from across the school ranging from Art to Psychology.

### TUIG thoughts on a recession?

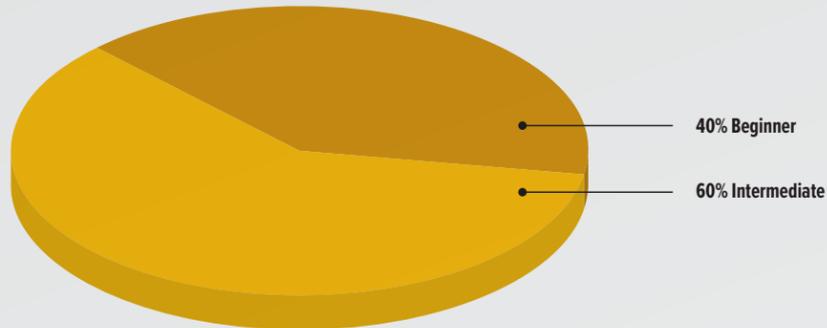
TUIG conducted a poll with participating students, asking them questions such as, "How are Towson University students investing during a recession?", in order to figure out how these students have been preparing for a downturn. When asked if we are currently in a recession, 75% of respondents answered "Yes." This study also aimed to find out which equities, cryptocurrencies, and industries students would/will be investing into while trying to hedge their portfolios against the heightened risks brought by recession. Approximately 75% of student respondents stated they would be diversifying their holdings across multiple industries. This method is consistent with the TUIG portfolio, as we strive to allocate our equity across all 11 sectors, which mirrors the S&P 500 index.

In terms of cash allocation within their portfolios, 37% of students indicated that they would commit 10-25% to cash, while 38% said that they would only commit 0-10% to cash, and 22.2% said that they would allocate 25-50% to cash. The remaining 2.8% of students said they would commit over 50% to cash. Due to overall market volatility and the increased volatility of asset prices, students are more likely to maintain a larger cash position (10-25%) than the TUIG portfolio (8%). Students' replies indicate that they are more concerned with long-term investing rather than short-term investing; 45.7% of respondents

**Figure 2 : Do You Invest Your Money?**



**Figure 3 : What is Your Investment Experience?**



have a time horizon of more than ten years, while 28.6% have a time horizon of two to five years. This is consistent with a majority of the respondents' investment growth goals (75% of respondents), with 19.4% of this majority focusing on producing a steady stream of passive income for the future through these investments.

**Major Holdings**

The top 5 holdings from the 2022 survey are Apple and the UltraPro Short QQQ (\$SQQQ), coming in with 50% of the participants selecting these stocks, Amazon (55.3%), Microsoft (57.9%), and Apple (84.2%). The most significant differences within the top 5 holdings from this year and last year 2021 would be the absence of Google and Disney and the addition of Tesla and the inverse S&P 500 ETF.

This could be because 46.2% of the respondents indicated that they have a lower risk tolerance, and one of the best ways to mitigate risk is by diversifying their money in the S&P 500 ETF. Inverse ETFs have also become a new favorite among investors, especially with its recent performance in the stock market and future outlook. With the knowledge and information TUIG has taught, we have developed a foundation for current and future members to hedge against this upcoming recession.

Do you think the current market conditions will impact your post college career search?

A recession, as defined by the experts from Investopedia, is a significant, widespread, and prolonged downturn in economic activity. A very popular rule of thumb for determining whether the economy is experiencing a recession is the occurrence of two consecutive quarters in which the gross domestic product (GDP) is declining.

During a recession there's a negative impact on GDP contraction, higher unemployment rates and lower consumer spending. After asking Towson students their thoughts on "Do you think the current market conditions will impact your post college career search?" 92% of students responded Yes and 8% of students responded No.

It's also important to mention the current 2022 inflation rates. A respondent said, "Yes, inflation is a big problem at the moment." In 2022, in the wake of the COVID-19 pandemic, inflation reached 8.5%, its highest rate since 1982. With the power of money becoming less and less valuable, the salary of freshly graduated students will be worth less as well as making the job search difficult.

**Sectors**

Many companies, both large and small, are affected by a recession. However, TUIG has found that the energy sector has been performing well despite being in a "recession" period. Despite all the legal ramifications against non-renewable energy, investors are hedging against this by investing in renewable energy. For example, big oil powerhouse Shell is working to provide more renewable and low-carbon energy options for customers through investments in wind, solar, electric vehicle charging, hydrogen, and more. Which looks very promising for investors.

With the current market conditions showing bearish trends pointing towards a recession, many investors have taken it upon themselves to become more cautious, and analytical when choosing where to invest their money.

**Table 1**

With our current markets, which sector are you keeping an eye on?
Technology, Financial, Healthcare, Industrials, Real Estate
Technology, Industrials, Real Estate, Energy
Technology, Financial, Healthcare, Real Estate, Energy
Consumer Cyclical, Energy, Utilities
Financial, Healthcare, Consumer Cyclical, Energy, Utilities
Technology, Financial, Energy, Utilities
Technology, Financial, Industrials, Energy, Utilities
Technology, Healthcare, Industrials, Real Estate, Energy
Technology, Financial, Communication Services, Healthcare, Consumer Cyclical, Industrials, Real Estate, Energy, Utilities
Technology, Financial, Healthcare, Real Estate
Financial, Communication Services, Industrials, Energy, Utilities
Technology, Real Estate, Energy
Healthcare
Technology, Healthcare, Industrials, Energy, Utilities
Financial, Industrials, Energy, Utilities
Technology, Communication Services, Consumer Cyclical, Real Estate, Utilities
Technology, Financial, Industrials, Real Estate, Energy
Technology, Financial, Consumer Cyclical, Energy
Communication Services, Consumer Cyclical, Utilities
Communication Services, Industrials, Energy, Utilities

When Towson University students were asked, "Within our current markets, which sectors are you keeping an eye on?", we learned that many of the respondents had their eyes focused on both the Energy sector (76.5%) and the Technology sector (70.6%). During 2022 the Energy sector has been rapidly rising and is currently up 34.29% YTD. This rise can partly be attributed to the recovery of jobs within this sector post Covid-19. Job growth within this sector is currently outpacing all other sectors across the entire U.S economy. During 2022 the Technology sector has been plummeting steadily over the last 3 quarters, standing at a loss of 34.13% YTD. This decline, according to Morningstar, was caused by "high-growth, tech-enabled stocks" which are "especially sensitive to interest-rate changes since their stock prices depend heavily on expectations of future earnings growth". With Technol-

ogy usually being discussed as one of the fastest-growing industries and highly essential assets in most businesses, many investors remain attracted to the potential growth/innovation within the industry, even if the future does not look favorable to the industry at the moment.

**Student Investing Experience and Knowledge**

Of our samples, a simple question was asked: do you invest your money? Our studies have shown that 78.9% of respondents say they do, while the remaining 21.1% do not. It indicates that more than half of the respondents are on the right track to retire in the future; starting at an early age puts them ahead of the curve.

When asked about their investment experience from no investment experience to expert knowledge, 60% are intermediate and 40% are beginners / have no experience. Indicating that most participants have an idea of what they are doing and that they are responsible with their money, one can invest money anywhere, but if no knowledge is known about a particular field, losses can occur. This is why many people seek professional guidance to achieve their financial and personal goals. When asked if they would seek a financial advisor, 42.10% were not sure, 36.84% would not, and the rest of the participants, 21.05%, would. That is a small percentage that would seek professional advice, which means most of the respondents are pretty confident in reaching their financial goals in life. While confidence is essential in life, there is also a tendency for people to overestimate their abilities, which is very common. To avoid such biases, investors must do their due diligence, in which case research and proper preparations must be done.

**Resources**

- <https://www.morningstar.com/articles/1026616/these-sectors-performed-best-and-worst-in-the-pandemic>
- <https://www.thebalancemoney.com/u-s-inflation-rate-history-by-year-and-forecast-3306093>
- <https://www.morningstar.com/articles/1115886/q3-2022-market-performance-in-charts>
- <https://www.investopedia.com/terms/r/recession.asp>



**Towson University Investment Group Disclosure:**

TUIG is a student run organization that was created as a forum for highly driven, like minded students to gain real-world experience through quantitative and qualitative research. We offer students a professional environment to discuss, learn, and connect with real-world financial experiences. TUIG maintains professional relationships with a widespread network of integrated local Maryland businesses in order to provide members with the opportunity to create interpersonal relationships with mentors and potential future employers.

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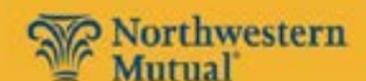
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## Contributors

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**RYAN BRADY** is a PhD macroeconomist specializing in macroeconomics, monetary policy, time series econometrics and forecasting. He is a Professor of Economics at the United States Naval Academy, where he has taught courses on those subjects for the past 18 years. He has numerous academic publications related to macroeconomic fluctuations, the effect of monetary policy on the economy, and various other related topics. He has recently passed the Level I and Level II CFA exams, and also writes a Substack blog focusing on "Macro 101" ideas and explaining macroeconomic data. Starting in January he will spend a year at the Securities and Exchange Commission in Washington D.C. as a visiting-scholar in the Department of Economic and Risk Analysis. Dr. Brady earned his PhD in economics from the University of California, Davis.



**LIJING DU, PH.D.**, received her Ph.D. from University of Kansas and joined the Towson faculty in 2013. Her teaching and research interests include financial derivatives, distress risk and corporate governance. She teaches a variety of courses at the undergraduate levels, including Principles of Financial Management, Equity Analyses, Fixed Income Analyses, Financial Modeling in Corporate Finance, and Global Financial Management. Her research has appeared in *Auditing: A Journal of Practice and Theory*, *Journal of Business Finance and Accounting*, and the *Financial Review*, among others. Beside serving on departmental committees, Dr. Du has served multiple leadership roles at the College of Business & Economics Council and Assessment Committee. She has also served as the co-editor of the *Baltimore Business Review* between 2017 to 2021.



**MAX EMDE** is a sophomore at Towson University pursuing a major in Finance with a minor in Accounting. Max currently serves as the Assistant Portfolio Manager of the Towson University Investment Group.



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**SARA FREEDMAN** is a student at Virginia Tech graduating in May of 2023. She will graduate with a BS in Criminology and dual minors in National Security and Foreign Affairs and Psychology. She has previously worked as a research intern for the Applied Research Laboratory for Intelligence and Security at the University of Maryland, College Park.



**SETH GITTER, PH.D.**, is a Professor of Economics at Towson University. He holds a Ph.D. from the Agricultural and Applied Economics Department at the University of Wisconsin-Madison and a B.A. in Economics from Grinnell College. His research focuses on a variety of issues in Latin American countries including early childhood development, cash transfers, schooling, migration fair-trade coffee, and quinoa. He has received research grants from the Inter-American Development Bank and the United Kingdom's Department for International Development to study the effects of conditional cash transfers on early childhood development. He also has worked for a variety of international organizations including the World Bank, United Nations and Evidence Action. He was the recipient of the Teaching Award (2018) for Towson's College of Business and Economics.



**RACHEL GORDON, PH.D.**, is an Assistant Professor in the Finance department. She holds a Ph.D. in Finance from Drexel University. Prior to her Ph.D., Rachel completed her M.A. in International Development with a focus on Development Economics and M.S.F. from American University. Upon graduation with her doctoral degree, she accepted a position at the University of Missouri - Columbia before joining Towson University in 2017. Rachel's research interests are in the fields of Corporate Governance, Joint Ventures, and Firm-Advisor relationships. Her research has appeared in the *International Review of Finance*, the *Annals of Tourism Research*, and *Managerial Finance* among others.



**MELISSA GROVES, PH.D.**, is an Associate Professor of Economics at Towson University. Her research focuses on better understanding the naturalization decision of US immigrants as well as on the importance of personality in the labor market. Her work has been published in the *Review of Social Sciences*, *American Economic Review*, *Journal of Economic Psychology* and the *Journal of Economic Literature* as well as in her co-edited book, "Unequal Chances: Family Background and Economics Status". Dr. Groves is also passionate about financial literacy and has worked for the past twelve years with the Maryland Council on Economic Education and the Maryland Coalition for Financial Literacy teaching workshops for elementary, middle and high school teachers to help them integrate economics and financial literacy knowledge into the curriculum. She earned a B.A. in Economics from Williams College and a Ph.D. from UMass Amherst.



**COLE HAMLETT** is an undergraduate junior majoring in Business Administration with a Concentration in Finance at Towson University. He makes great use of his critical thinking & leadership skills in encouraging students to become more financially literate. Cole currently serves as the Vice President for the Towson University Investment Group.



**HUNG HENDY** received her Ph.D. in Business Administration with a concentration in Human Resource Management from Virginia Commonwealth University in Richmond, VA in 2002. She joined Towson university in 2005 and is currently a Professor in the Department of Management. In addition, she is a senior certified HR professional by the Society for Human Resource Management (SHRM) and Human Resource Certification Institute (HRCI). Her research and teaching interests span the areas of Human Resource Management, Business Ethics education, and Research methodology. She currently serves as a section editor of *Acta Psychologica*, a peer-reviewed journal published by Elsevier. As a mental health advocate, she serves as President of Thao Nguyen Foundation, Inc. a 501(c)3 whose mission is to raise mental health awareness and suicide prevention.



## Contributors

**CRYSTAL JOHNSON** received her Baccalaureate degree in Business Administration with a concentration in Human Resource Management from Towson University in May 2022. She joined AIG as a Human Resources Intern in the Summer of 2021 and continued on to be a Human Resources Analyst in the Summer of 2022. She currently works with the HRBP team supporting Business Claims and participates in ERGs such as Young Professionals and Black Professionals. As a former D1 Track Athlete, she continues her passion for the sport by occasionally volunteering with track programs in the Baltimore area and participating in local running festivals.



**JORDAN LE** is an undergraduate junior double majoring in Business Administration with a Concentration in Finance and Accounting at Towson University. Jordan currently serves as the President for the Towson University Investment Group and aims to provide equitable access to financial independence and financial literacy for all.



**DANIEL MORALES** is currently pursuing a Major in Investments as a Portfolio Manager at TUIG. Currently working as an equity research intern at Blue Point Investment Management. Also, interned at Prudential Financial and Worthington Financial Services. In addition, is an active member of the CFA Society of Baltimore.



**ALEKSANDR OLSHANSKIY** is an Investment Analyst at Tufton Capital Management, LLC. In this role, Mr. Olshanskiy is a member of Tufton's Investment Committee, and he closely monitors the technology and energy sectors. He conducts research on Tufton's existing holdings and presents new investment opportunities to the Committee. He also assists with the marketing and technology operations of Tufton. Mr. Olshanskiy earned a B.S. in Business Administration with a Concentration in Finance from Towson University in 2021.



**JAMES RAYMOND, M.S.**, is a former National Security Agency Special Agent and Counterintelligence Investigator with a Master of Science degree in Criminal Investigations from the University of New Haven. He recently worked for the University of Maryland Applied Research Laboratory for Intelligence and Security on combatting the issue of unauthorized disclosures of protected government information. He also has a background education in forensics, criminology, and psychopathology from the University of Maryland. His career experiences center on applying psychological concepts to criminal justice and security practices including background investigations, interviewing, and counterintelligence threat assessments. He is currently in the recruitment process for Homeland Security Investigations.



**NATALIE M. SCALA, PH.D.**, is an Associate Professor and Director of the graduate programs in Supply Chain Management in the College of Business and Economics at Towson University. She earned Ph.D. and M.S. degrees in Industrial Engineering from the University of Pittsburgh. Her primary research is in decision analysis, with specialization in military and security issues. Her expertise in elections security earned a University System of Maryland Board of Regents Award for Excellence in Public Service, the system's highest faculty honor. In conjunction with Anne Arundel County, Maryland, her work in cybersecurity and threat training for poll workers received a U.S. Elections Assistance Commission Clearinghouse Award for Outstanding Innovation in Election Cybersecurity and Technology. Dr. Scala frequently consults to government clients and has extensive professional experience, to include positions with the United States Department of Defense and the RAND Corporation. Her second book, a co-edited volume titled *Mathematics in Cyber Research*, was released in 2022.



**TAYLOR SEAMAN** is a Master of Arts graduate student in Forensic Psychology at George Washington University with an expected graduation date of January 2023. She graduated from Brown University in May 2021 with a Bachelor of Science in Psychology. She currently works as a graduate teaching assistant within the George Washington University Sociology Department, and she intends to pursue a career in government work or law enforcement upon completion of her master's degree.



## About Towson University



Towson University is Maryland's university of opportunities. With more than 150 years of experience pushing possibilities, TU is recognized as one of America's top regional public universities and a leader in academic excellence, research and discovery. As the largest university in Greater Baltimore and Maryland's fastest-growing university, Towson University's momentum is always accelerating with more than 22,700 current students and more than 100 bachelor's, master's and doctoral degree programs in the liberal arts and sciences and applied professional fields. Located amid one of the East Coast's cultural and economic epicenters, TU is a beacon and powerful catalyst in the Mid-Atlantic region partnering with hundreds of businesses and organizations, impacting communities and fueling change. Towson University is currently ranked as a leading regional university by both Princeton Review and U.S. News & World Report. TU is also one of only a handful of institutions where graduation and retention rates are the same for all students, a result of a deeply inclusive culture with a focus on equity among all students, faculty and staff.

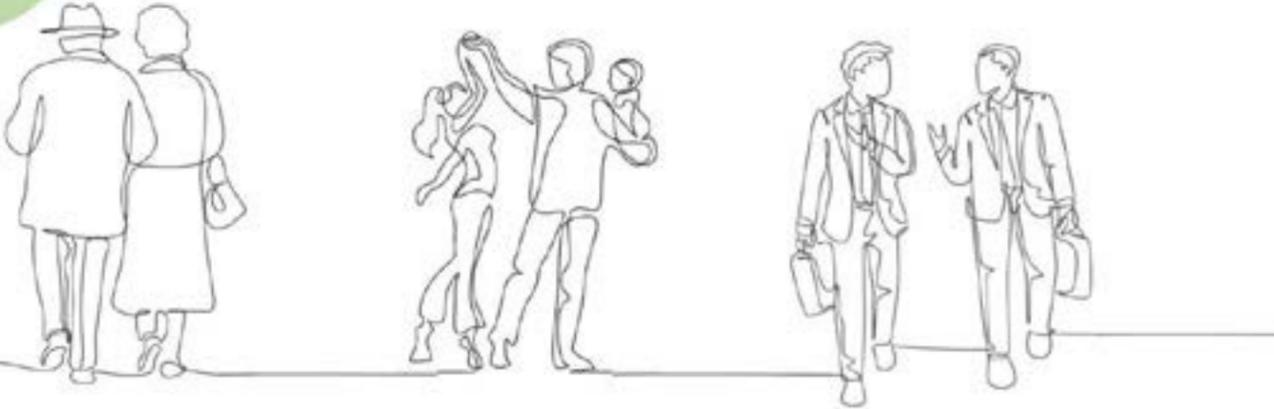
## About CFA Society Baltimore



CFA Society Baltimore is a local member society of CFA Institute, which has over more than 168,000 CFA charterholders worldwide in 164 markets and regions. CFA Society Baltimore is over 800 members strong, draws from a diverse cross section of local investment firms, financial and educational institutions, and government agencies.

CFA Society Baltimore leads the investment profession locally by promoting the highest standards of ethics, education, and professional excellence for the ultimate benefit of our community. 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.

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