The Undergraduate Scholar welcomes submissions from current Indiana University students in all areas of study. Papers of any length are accepted, but submissions should have implications broader than an individual assignment or course. The entries are judged by the undergraduate editorial staff based on attention to mechanics, style, content, clarity, and contemporary appeal. The staff reserves the right to edit submissions for clarity but also welcomes the author’s participation in this process. The Undergraduate Scholar also accepts artwork, including prints, photographs, paintings, and works in other media.

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The paper should be a Microsoft Word document and include a title page with the student’s name, local address, permanent address, phone number, and email address. If electronic submission is undesirable, entries consisting of one hard copy and one disk copy can be dropped off at or mailed to:

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Indiana University Hutton Honors College
811 E. Seventh St.
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THE UNDERGRADUATE SCHOLAR

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Dear Reader,

On behalf of our staff, we welcome you to the newest edition of The Undergraduate Scholar. We have worked diligently over the past several months to create this project, and are happy to share the results with you. The journal features five essays of exceptional quality, as well as five student art pieces and the dedicated work of Abby Kaufman, our lead designer.

In choosing this edition’s five essays, we looked for well developed, dynamic pieces from many fields. They focus on a wide range of issues pertinent to a modern reader: a timely discussion of asymmetric warfare as it is practiced today; the relationship between a student’s course of study and their repayment of loans; ethnic and social separation in Bosnia and Herzegovina; the work of J. D. Salinger considered in a Nietzschean context; and the role of gender in Shakespeare’s Twelfth Night.

This year, we are happy to feature artwork submitted by Indiana University fine arts students. Their contributions of photography and paintings have enhanced the journal’s composition. We hope to continue displaying student artistic work in future editions.

We would like to thank all the authors, artists, staff members, faculty, and readers who made this possible. Their dedication and hard work made this project a pleasure to coordinate. Thank you for your support of our journal, and for your interest in undergraduate work. Happy reading!

Sincerely,

Emma Needham
Caitlyn Cuba

Emma Needham
Caitlyn Cuba
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ASYMMETRIC WARFARE
IN 2014: A Horse of a Different Color

ALISSA KIZER
photo by REBECCA COLLINS
O

N SUNDAY, DECEMBER 7, 1941, a group of Japanese planes bombed Pearl Harbor in Hawaii, United States. The next day, America entered World War II, bringing with it a long tradition of strong, unrivaled, conventional military power. A few short years and an estimated $341 billion later, World War II was over and the United States, along with the Allies, had defeated Japan and the Axis Powers. Due to this martial strength, no one attacked the United States head-on until September 11, 2001. On this infamous day, the Islamic terrorist group al-Qaeda attacked America. Although they spent a mere $500,000, they caused at least $18 billion in direct damage (Hatto 2014). They accomplished this by crashing passenger planes into two of New York’s most populated skyscrapers, an act no one had thus far even dreamt of pursuing.

This act of terrorism was a tactic not of conventional warfare, but of asymmetric warfare, which can be defined as one weaker actor, be it a state or non-state actor, attempting to instigate change by organizing and fighting more effectively than its stronger adversary. Since asymmetric warfare is quite prevalent throughout the world today, it is important to understand exactly what asymmetric warfare is, what it looks like, and how to combat it. Asymmetric warfare in 2014 looks far different than it did just thirty years ago. Even though it has evolved greatly in the past thirty years, it is not a new concept, but rather one that has been used for hundreds of years. To combat modern asymmetric strategies, it is first necessary to examine the history of asymmetric warfare and how it has evolved, then examine exactly what asymmetric warfare looks like today. This allows for brainstorming about effective counteractive measures to asymmetric warfare in 2014.

A BRIEF HISTORY

According to Michael J. Mazarr, an American author well-known for his writings regarding world political and military conflict, most American defense specialists focused primarily on traditional conventional warfare from the 1930s until 1989 (2008). The tide turned in the 1980s, however, when Martin Van Creveld, a military historian and theorist known for his work on the transformation of warfare, first
wrote about asymmetric warfare, arguing that interstate war is a “thing of the past, that insurgencies and other sorts of conflicts would constitute the future of warfare, and that militaries who ignored these facts would be doomed to obsolescence” (Mazarr 2008). Then, in the 1990s, Robert Kaplan, an American journalist whose essays about American power have stirred controversy, and Thomas P.M. Barnett pushed the focus of asymmetric warfare to the forefront of American defense philosophy, arguing that state failure – referring to states whose governance has largely failed, leaving the control of the country very vulnerable and open to other parties – and areas outside the reach of globalization posed the biggest threat of all (Mazarr 2008).

As asymmetric warfare became more prominent, scholars and defense specialists alike attempted to define it clearly and narrowly in order to distinguish it from regular warfare. As stated above, the fundamental aspect of asymmetric warfare is that the weaker actor tries to fight more effectively than its stronger adversary. This definition was further explained by Michael Breen and Joshua A. Geltzer: “asymmetric strategies transform an adversary's perceived strength into a vulnerability, often by revealing one's own perceived vulnerability as a strength” (2011). Their article refers to the martial art Jujitsu to explain how asymmetric warfare aims at being more effective:

When facing a taller or stronger opponent, for example, a jujitsu practitioner is encouraged to view the opponent's advantages in height and muscle mass as exploitable weaknesses, as they tend to produce a high center of gravity. Similarly, jujitsu practitioners use the very force that an opponent is able to put behind a punch in order to throw him to the ground, rather than blocking the blow and attempting to respond in kind. (Breen and Geltzer 2001)

Using an opponent’s own power against them, instead of responding in kind with one’s own power, is a more effective use of time, money, and energy. This principle is at the core of asymmetric warfare, and thus exemplifies two frequently used tactics: terrorism and insurgency.

Classical insurgency as it existed in the 1960s is defined as “a struggle to control a contested political space, between a state (or group of states or occupying powers), and one or more popularly based, non-state challengers” (Kilcullen 2006-07). In other words, insurgencies aim to gain political power in what is, more often than not, an unstable state by finding support and resources in the regional community and changing the existing status quo. Classical insurgents have a clear goal and conduct operations in an organized fashion to gain political control. Though much of asymmetric warfare resembled this model in the mid-to-late 1900s, it started to change dramatically at the turn of the century and has continued to evolve until today, rendering asymmetric warfare of 2014 a horse of a very different color.

**Asymmetric Warfare in 2014**

To learn how to counteract asymmetric warfare, strategies must evolve as asymmetric warfare itself evolves. Thus, it is necessary to examine the intricate details of what asymmetric warfare looks like today. Broadly speaking, there are two main differences between classical and modern asymmetric warfare and insurgency: the organization of those engaging in asymmetric warfare and the increased use of advanced technologies.

To begin, modern insurgency is different
from the past because its organizational structure is more scattered and its overall aspirations are less clear. Regarding modern asymmetric warfare and strategy, hardly anyone is a more credible source than David Kilcullen, seeing as he was previously the Chief Strategist in the Office of the Coordinator for Counterterrorism at the U.S. State Department. According to Kilcullen, the organizational structure of modern insurgency is less centralized, employing small groups of insurgents that operate as separate “cell-based structures” resembling “leaderless resistance” (2006-07). Additionally, modern insurgents often have no clear political aim, and often fail to state exactly what they want.

This cell-based structure renders counter-insurgency difficult for two reasons: it is much harder to locate and identify insurgents when they are operating out of tiny groups, and it is even more difficult to spot these insurgents in an urban landscape with the “jungle” of buildings and crowds, as opposed to a rural landscape. A clear example of this is from the Iraq war, when the insurgents hid among the urban population (Kilcullen 2006-07). Counterinsurgency forces had a difficult time locating these hidden insurgents in such a tangled urban environment.

Furthermore, the fact that modern insurgents are not as explicit about their goals makes it very difficult to negotiate with them. It is nearly impossible to make concessions and give them what they want if they do not specifically state what they want. Thus, the fact that some modern insurgents do not state their political goals makes counterinsurgency very difficult – a characteristic that is unique to modern asymmetric warfare.

As shown, a change in organizational structure is one way in which asymmetric warfare has evolved since earlier decades. Asymmetric warfare of 2014 has one more distinct trait: the heavy use of technology in warfare tactics, which some deem “Cyber Warfare.” This increased use of advanced technology changes asymmetric warfare in three ways: creating the opportunity for an “electronic levée en masse,” creating virtual sanctuaries, and posing major threats for adversary states dependent on technology for their military operations.

To begin, “levée en masse” was a term first coined during the French Revolution. It referred to a mass rising of citizens to join the revolutionary cause (Cronin 2006). According to Oxford’s Audrey Cronin, an “electronic levée en masse” is the now widespread use and availability of television, internet, and social media to recruit citizens from both the regional and global community for an insurgent or terrorist group’s cause (2006). Not only can these media be used to attract and recruit new personnel, but also to spread information regarding training and operations and to aid in financial transfers and acquisition. All of these aspects are unique to asymmetric warfare in 2014.

Second, the internet now provides a sort of virtual sanctuary. Insurgents and terrorists can remain anonymous on the web and are less reliant upon physical sanctuaries than classical insurgents were. In Vietnam, for example, insurgents would flee the country and hide in sanctuaries just across the border. Though international law forbade crossing the border to attack these sanctuaries, at least the counterinsurgency forces knew exactly where the sanctuaries were located. When modern insurgents and terrorists can reside in virtual sanctuaries, however, locating and invading these sanctuaries becomes problematic (Kilcullen 2006-07).

Finally, the recent advancements in technology are critical to asymmetric warfare in 2014 because insurgents and terrorists can
exploit a strength of developed militaries – their advanced technology – and use it against them. First, insurgents and terrorists can target their adversary’s technology as a defense mechanism. For example, if an advanced military (one dependent on technology to carry out its air operations) were trying to attack an insurgent base, the insurgents could target the technological communications directing the air strikes, completely disrupting the adversary’s operation and making its success unlikely (Hatto 2014). Cyber warfare poses another frightening threat: the possibility of insurgents or terrorists taking down entire systems in the adversary’s homeland. If a terrorist group wanted to wage asymmetric warfare against the United States, they could target the power grid for a region or for the country. This would leave America in the dark with no ability to communicate, thus rendering the country vulnerable to any terrorist attack. This possibility did not exist in classical warfare; it is something that is unique to asymmetric warfare in 2014, and it changes the game entirely.

Asymmetric warfare in 2014 is decentralized, often with no explicit political goal. It introduces cyber warfare into its arsenal of tactics, creating an electronic levée en masse, creating virtual sanctuaries, and posing grave threats to adversaries whose operations depend on technology. Asymmetric warfare of 2014 has evolved and is entirely different from classical asymmetric warfare. For powers who have not yet adapted their tactics to this evolving warfare, counterinsurgency will prove extremely difficult. According to Kilcullen, adversaries who have only used conventional military tactics must shift the paradigm (2006-07). They must leave behind conventional warfare and start using asymmetric tactics to respond in kind. As insurgency evolves, so must counterinsurgency. Conventional military tactics will not prevail today, because asymmetric warfare in 2014 is indeed a horse of a different color.

**BIBLIOGRAPHY**


About the Author

Allissa Kizer (known as Alli to her friends and family) is a senior at IU majoring in Legal Studies through SPEA. During her undergraduate stay, Alli participated in orchestra, intramural volleyball, and several French tables; her interests are very diverse and reach far beyond the bounds of law. Outside of academics, Alli is most passionate about travel. Having been to South Africa, Turkey, France, the Czech Republic, and more, she is truly a world traveler. This led her to study abroad on exchange in Paris, where she hopes to complete her Masters in International Law. It is thus not surprising that she goes through life hoping to accomplish this one thing above all else: to seize the moment, because in every moment there is a new opportunity, perspective, and experience waiting to be discovered.

Artwork - “Look” by Rebecca Collins

Rebecca is a senior at Indiana University where she is earning a degree in Studio Art with a focus in Graphic Design and a minor in Music. She has been taking photographs since high school and believes that photography should go beyond mere documentation and provide viewers with a new perspective. Rebecca loves the process of experimenting with different mediums and finding new ways to communicate through art.
IS THE PRICE RIGHT?
An Investigation into the Relationship between Major Choice and Debt Default in Postsecondary Education with a Novel Policy Experiment

TERRENCE NEUMANN
*photo by REBECCA COLLINS*
INTRODUCTION

The value of postsecondary education continues to increase. In fact, the wage premium for those with postsecondary education has risen over the past three decades by 75.8% for women and 100% for men (Mishel, Bernstein and Allegretto 2014). However, the increase in real tuition at public universities has outpaced the rise in the wage premium, increasing 231.3% at public, four-year universities from 1983 to 2013 (Trends in Higher Education: Published Prices – National 2014).

The increase in tuition has made financial aid necessary for many students who decide to pursue higher education as they would be unable to afford it otherwise. From data published by the College Board, total financial aid per full-time equivalent (FTE) undergraduate student increased by 55% between 2002-03 and 2012-13, rising from $8,630 (in 2012 Dollars) to $13,370 (2013). Often, a component of student aid is debt, which has also risen recently among students. Student loans per FTE have increased 46.1% in this same ten year period, from $4,360 to $6,370 (Average Aid per FTE Student over Time 2013). Of those students who take out loans at public four-year universities, average indebtedness has increased by 20% in the past ten years, from $20,900 to $25,000 (Average Debt Levels of Public Sector Bachelor’s Degree Recipients over Time 2014).

Those who borrow large sums of money are impacted greatly. In a survey, 48% of borrowers said that it has become harder to pay bills or make ends meet, 25% said it has become harder to buy a home, 24% say it has impacted career choices, and 7% say it has delayed marriage or starting a family (Pew Research Center 2012). Those who do become delinquent (90-180 days without repayment) or default (270+ days without repayment) face limited consumption in the future. The credit rating of a college student who defaults is often severely damaged, which will negatively affect their ability to take out loans to buy a home, or a car, start a business, or achieve affordable premiums (Cunningham and Kienzl 2011). We have seen the rate of default on student loans nearly double over the past decade from 5.4% to 10% (Federal Student Loan Two-Year Cohort Default Rates over Time 2013).¹ This should concern policymakers, who should be striving to find the reason that college graduates are increasingly unable to pay their debts and should be looking for solutions that makes financing postsecondary education work more functionally.

This essay investigates the notion that a college student’s choice of

¹ This number is derived from surveys following graduates from their first two years of post-college employment.
major affects their rate of default. In subsequent sections, I analyze data that confirms that different majors default at different rates, and that choice of major is a determinate factor in the probability of default for a student. I conclude by conducting a policy experiment called differentiated tuition pricing, in which a university price discriminates by charging those who will have higher future incomes a higher rate. I show that differentiated tuition pricing marginally increases total consumer welfare for postsecondary education students, and it has the largest effects amongst those most vulnerable to default. However, I conclude that the result is minimal, and other policies would be more effective at helping reduce the rate of default.

**Table 1 – Labor Market Data for New College Graduates from (Carnevale, Strohl, and Melton 2011) and Author’s Calculations**

<table>
<thead>
<tr>
<th>Majors</th>
<th>Share of Majors</th>
<th>Median Earnings</th>
<th>25th Percentile Earnings</th>
<th>75th Percentile Earnings</th>
<th>% Fulltime</th>
<th>% Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural and Natural Resources</td>
<td>1.6%</td>
<td>$50,000</td>
<td>$35,000</td>
<td>$75,000</td>
<td>90%</td>
<td>96%</td>
</tr>
<tr>
<td>Arts</td>
<td>4.6%</td>
<td>$44,000</td>
<td>$30,000</td>
<td>$65,000</td>
<td>76%</td>
<td>92%</td>
</tr>
<tr>
<td>Biology &amp; Life Sciences</td>
<td>3.5%</td>
<td>$50,000</td>
<td>$35,000</td>
<td>$75,000</td>
<td>81%</td>
<td>95%</td>
</tr>
<tr>
<td>Business</td>
<td>25.0%</td>
<td>$60,000</td>
<td>$40,000</td>
<td>$90,000</td>
<td>90%</td>
<td>95%</td>
</tr>
<tr>
<td>Communication &amp; Journalism</td>
<td>5.9%</td>
<td>$50,000</td>
<td>$34,000</td>
<td>$75,000</td>
<td>82%</td>
<td>94%</td>
</tr>
<tr>
<td>Computers &amp; Mathematics</td>
<td>5.1%</td>
<td>$70,000</td>
<td>$48,000</td>
<td>$100,000</td>
<td>91%</td>
<td>94%</td>
</tr>
<tr>
<td>Education</td>
<td>10.6%</td>
<td>$42,000</td>
<td>$32,000</td>
<td>$55,000</td>
<td>82%</td>
<td>96%</td>
</tr>
<tr>
<td>Engineering</td>
<td>8.2%</td>
<td>$75,000</td>
<td>$53,000</td>
<td>$102,000</td>
<td>93%</td>
<td>94%</td>
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<tr>
<td>Health</td>
<td>6.9%</td>
<td>$60,000</td>
<td>$45,000</td>
<td>$80,000</td>
<td>77%</td>
<td>98%</td>
</tr>
<tr>
<td>Industrial Arts</td>
<td>1.6%</td>
<td>$50,000</td>
<td>$33,000</td>
<td>$75,000</td>
<td>84%</td>
<td>95%</td>
</tr>
<tr>
<td>Humanities</td>
<td>9.7%</td>
<td>$47,000</td>
<td>$32,000</td>
<td>$70,000</td>
<td>80%</td>
<td>93%</td>
</tr>
<tr>
<td>Law and Public Policy</td>
<td>2.3%</td>
<td>$50,000</td>
<td>$36,000</td>
<td>$74,000</td>
<td>90%</td>
<td>95%</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>2.8%</td>
<td>$59,000</td>
<td>$38,000</td>
<td>$87,000</td>
<td>86%</td>
<td>95%</td>
</tr>
<tr>
<td>Psychology &amp; Social Work</td>
<td>5.4%</td>
<td>$42,000</td>
<td>$30,000</td>
<td>$62,000</td>
<td>79%</td>
<td>94%</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>6.9%</td>
<td>$55,000</td>
<td>$38,000</td>
<td>$87,000</td>
<td>86%</td>
<td>94%</td>
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<td>$55,060</td>
<td>$38,228</td>
<td>$80,033</td>
<td>85%</td>
<td>95%</td>
</tr>
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PART I – THE RELATIONSHIP BETWEEN MAJOR CHOICE AND DEFAULT ON STUDENT DEBT

a. Preliminary investigative data

In the short term, the debtor’s ability to repay may be hindered by the high variation in earnings associated with new entrants into the labor market, often through underemployment (Dynarski and Kreisman 2013). From Table 1, we see that graduates of different majors earn different median incomes, and we see a difference in full time employment rates. The major with the highest full-time employment and earning at the median upon graduation is engineering. With median earnings at $75,000 and full-time employment at 93%, this group has a large advantage in the labor market and is probably the safest holder of student debt.

However, there are groups that score well below the average earnings of the median college graduate and face worse employment prospects. For instance, education majors and humanities majors fare poorly in the labor market. Education majors have median earnings of $42,000, and 82% of these graduates are fully employed. Humanities majors have median earnings of $47,000, and only 80% of these graduates gain full time employment upon graduation.

The impetus for the remainder of my data analysis comes from the following thought experiment: Imagine two students graduating from the same university who take out equal amounts of debt to finance their degrees. One student graduates with a degree in education, and the other graduates with a degree in engineering. The results from this introductory data analysis indicate that, ceterus parabus, the engineering major will be more likely to afford repayment on their debt, as they have a higher probability of obtaining a job and a higher starting salary than does the education graduate. However, more specificity is required to assert these claims, and the following sections test more specific hypotheses.

b. Is there a difference in default rates between pairs of majors?

Research conducted by Herr and Burt at the University of Texas yielded the data in Table 2 (Page X). From this data, I was able to conduct several statistical tests in order to determine whether or not different majors default at significantly different rates.

First, I decided to explore whether or not there was any difference between the rates of default between all majors. Default can be measured as a binomial outcome; either a student defaults or they do not. From the data, we see that the average default rate across majors was 3.6%, or 0.036. However, across majors, the range of defaults was 0.0559, from the highest rate of default by social work majors at 5.59%, to the lowest rate by nursing majors at 0%. In order to determine whether or not this was extraordinary, I developed the following hypothesis test:

H0: Default rate across majors = 0.036 vs. H1: At least one major has default rate ≠ 0.036

In the statistical package R, I simulated this binomial outcome 1000 times across all majors, keeping the sample size per major consistent with the data from Herr and Burt and using the overall default rate (0.036) as the probability of a “success.” I used the range of the data across major groups as a test statistic (that is: highest rate of default minus lowest rate of default), and calculated the p-value from the following equation:

\[ p = \frac{\text{(# of simulations with range ≥ range of experimental data)}}{\text{(# of simulations)}} \]

The histogram (Figure 1) shows the distribution of the data from the simulation, with the dotted line indicating the result from
### Table 2 – Default Rates by Major Group, Data from (Herr and Burt 2005)

<table>
<thead>
<tr>
<th>School of Degree</th>
<th>Number of Graduates</th>
<th>Number Defaulted</th>
<th>Default Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Work</td>
<td>179</td>
<td>10</td>
<td>5.59%</td>
</tr>
<tr>
<td>Liberal Arts</td>
<td>4385</td>
<td>171</td>
<td>3.90%</td>
</tr>
<tr>
<td>Education</td>
<td>840</td>
<td>29</td>
<td>3.45%</td>
</tr>
<tr>
<td>Communication</td>
<td>1456</td>
<td>40</td>
<td>2.75%</td>
</tr>
<tr>
<td>Business Administration</td>
<td>1372</td>
<td>33</td>
<td>2.41%</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>1656</td>
<td>39</td>
<td>2.36%</td>
</tr>
<tr>
<td>Not Provided</td>
<td>393</td>
<td>8</td>
<td>2.04%</td>
</tr>
<tr>
<td>Engineering</td>
<td>1175</td>
<td>22</td>
<td>1.87%</td>
</tr>
<tr>
<td>Nursing</td>
<td>231</td>
<td>0</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

### Figure 1 – Simulated Range Data, with Dotted Line Indicating Observed Range
the experimental University of Texas data. This yielded a result of \( p = 0.001 \), which was significant enough to reject the null hypothesis that all majors carry the same risk of default.

After the previous null hypothesis was rejected, I decided to further investigate whether or not there are any significant differences in default rates among specific pairs of majors. Given the data from Table 2, if I were to compare all nine pairs, I would have \( \binom{9}{2} = 36 \) pairwise tests, which is excessive for this study. Instead, I chose to investigate pairwise relationships between six major groups. I discarded data for students who did not provide their major, as this would not add any descriptive element to the study. I also discarded data from nursing students, as they had an extraordinary 0% default rate on their loans, which would most likely be significantly different from every group. Additionally, I clustered natural science majors and engineering majors under the moniker “STEM,” as this is more often the term used to describe this group of majors. Thus, I examined the \( \binom{6}{2} = 15 \) pairwise hypothesis tests for differences in default rate between social work, liberal arts, education, communication, business, and STEM majors. The hypothesis tests were all of the form:

\[
H_0: \text{Default Rate of major}_i = \text{Default Rate of major}_j \\
\text{vs. } H_1: \text{Default Rate of major}_i \neq \text{Default Rate of major}_j
\]

I decided to use the difference-in-proportion z-test, as I felt it would best describe the differences in the data, and all of its conditions were satisfied (the sampling method for each population is simple random sampling, the samples are independent, each sample includes at least 10 successes and 10 failures, and each population is at least 10 times as big as its sample). This z-test statistic that I used is as follows:

\[
z = \frac{\hat{p}_1 - \hat{p}_2}{SE} \quad \text{where } SE = \sqrt{\frac{\hat{p} \times (1 - \hat{p})}{n_1 + n_2}}
\]

and where \( \hat{p} = \frac{\text{Combined # successes}}{\text{Combined # trials}} \)

I used the Bonferroni correction to determine the proper level of significance. The Bonferroni correction is a multiple-comparison correction used when several dependent or independent statistical tests are being performed simultaneously (since while a given alpha-value may be appropriate for each individual comparison, it is not for the set of all comparisons). In order to avoid a lot of false positives, the alpha value needs to be lowered to account for the number of comparisons being performed (Weisstein). Therefore, instead of using an \( \alpha \)-value of 0.05, given that I am performing 15 tests, I will instead use an \( \alpha \)-value of \( 0.05/15 = 0.0033 \) to test for significance.

The results from the tests are seen in Table 3. I found that there were significant differences in default rates among ten of the fifteen combinations studied. One conclusion I was able to draw from these tests was that social work seemed to be the major most at risk of default, as it proved to have significantly higher default rates than any other group, even those closest to it in default rate. All other groups had at least one other major group with which there was no significant difference in default rate. All other groups had at least one other major group with which there was no significant difference in default rate. Given the data from Table 1, in which we find that graduates from social work and psychology majors make some of the lowest incomes and have the most difficulty finding full-time employment, the results may not be surprising.

There are, however, problems with the data that may lead to bias in the results of these tests. First, notice that default rate is not expressed in terms of students that took out loans, but as an overall proportion of the
This could lead to significant bias. For instance, we see that no nursing students in the class defaulted. This result is extraordinary if every nursing student took out a loan. However, if only two nursing students took out loans, this result becomes much less dramatic. Additionally, because these data are from a single “flagship” public university, we would most likely expect default rates to be lower across the board than the national average, as the students would likely be very employable upon graduation regardless of their major, as compared to graduates from a for-profit or lower-tier public university.

c. Does choice of major affect probability of default?

In order to determine whether or not a student’s major is a factor in estimating their probability of default, a regression must be developed. For this regression, I use data from the National Postsecondary Student Aid Survey, conducted by the Institute of Education Sciences, specifically from the “Baccalaureates and Beyond” section. Approximately 15,500 graduating seniors were surveyed in 2008 and

<table>
<thead>
<tr>
<th>Comparison Groups</th>
<th>Difference in Default Rate</th>
<th>Standard Error</th>
<th>Z-stat</th>
<th>p-value</th>
<th>Reject null at ( \alpha = 0.0033 )?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Work / Liberal Arts</td>
<td>0.017</td>
<td>0.003</td>
<td>5.840</td>
<td>2.615E-09</td>
<td>YES</td>
</tr>
<tr>
<td>Social Work / Education</td>
<td>0.021</td>
<td>0.006</td>
<td>3.551</td>
<td>1.919E-04</td>
<td>YES</td>
</tr>
<tr>
<td>Social Work / Communication</td>
<td>0.028</td>
<td>0.004</td>
<td>6.668</td>
<td>1.297E-11</td>
<td>YES</td>
</tr>
<tr>
<td>Social Work / Business Admin.</td>
<td>0.032</td>
<td>0.004</td>
<td>7.631</td>
<td>1.166E-14</td>
<td>YES</td>
</tr>
<tr>
<td>Social Work / STEM</td>
<td>0.034</td>
<td>0.003</td>
<td>12.407</td>
<td>0.000E+00</td>
<td>YES</td>
</tr>
<tr>
<td>Liberal Arts / Education</td>
<td>0.004</td>
<td>0.003</td>
<td>1.685</td>
<td>4.599E-02</td>
<td>NO</td>
</tr>
<tr>
<td>Liberal Arts / Communication</td>
<td>0.012</td>
<td>0.002</td>
<td>4.720</td>
<td>1.179E-06</td>
<td>YES</td>
</tr>
<tr>
<td>Liberal Arts / Business Admin.</td>
<td>0.015</td>
<td>0.002</td>
<td>6.133</td>
<td>4.307E-10</td>
<td>YES</td>
</tr>
<tr>
<td>Liberal Arts / STEM</td>
<td>0.017</td>
<td>0.002</td>
<td>8.403</td>
<td>0.000E+00</td>
<td>YES</td>
</tr>
<tr>
<td>Education / Communication</td>
<td>0.007</td>
<td>0.004</td>
<td>1.979</td>
<td>2.391E-02</td>
<td>NO</td>
</tr>
<tr>
<td>Education / Business administration</td>
<td>0.010</td>
<td>0.004</td>
<td>2.984</td>
<td>1.424E-03</td>
<td>YES</td>
</tr>
<tr>
<td>Education / STEM</td>
<td>0.013</td>
<td>0.003</td>
<td>5.084</td>
<td>1.847E-07</td>
<td>YES</td>
</tr>
<tr>
<td>Communication / Business Admin.</td>
<td>0.003</td>
<td>0.003</td>
<td>1.147</td>
<td>1.257E-01</td>
<td>NO</td>
</tr>
<tr>
<td>Communication / STEM</td>
<td>0.006</td>
<td>0.002</td>
<td>2.558</td>
<td>5.265E-03</td>
<td>NO</td>
</tr>
<tr>
<td>Business Admin. / STEM</td>
<td>0.003</td>
<td>0.002</td>
<td>1.098</td>
<td>1.360E-01</td>
<td>NO</td>
</tr>
</tbody>
</table>
followed through 2012, and my regression used 6,200 of these observations.

When deciding what independent variables to use in my regression, I examined Herr and Burt, who had developed a model that attempted to predict likelihood of default for University of Texas students (2005). In their model, the five variables that explained >10% of the variance in the data were whether or not the student graduated from college, number of credit hours failed, race/ethnicity, school of first degree, and dependent/independent status.

Through the “Baccalaureate and Beyond” survey, I chose the following independent variables to estimate the likelihood of default, largely based on the variables Herr and Burt used in their study:

1. College major – a dummy which was broken into STEM, liberal arts, education, business, and nursing, with STEM taking the default value
2. Race – a dummy which was broken into white, black, Asian, Hispanic, and other/mixed rate, with white taking the default value
3. Number of credits repeated – a continuous variable that serves as a proxy for number of credit hours failed from Herr and Burt’s model
4. Dependency status – a dummy variable broken up into dependent/independent categories, with dependent status taking the default value
5. Institution Selectivity – a dummy variable broken down into highly selective, moderately selective, minimally selective, and open admission, with highly selective as the default value

Because my dependent variable was categorical, I used a logistic regression to model the probability of default. Also, I chose the default value of the dummy variables to represent a person that is at the least risk of default on student loans: a white, dependent, STEM graduate from a highly selective university. Thus, all extraordinary results with a low p-value will likely be signaling the factors that contribute to an increased probability of default. The model I constructed is below:

$$
\text{logit} (\text{Default}_{i}) = \beta_0 + \beta_{1i} * \text{Major}_{i} + \\
\beta_{2i} * \text{#CreditsRepeated}_{i} + \beta_{3i} * \text{Race}_{i} + \\
\beta_{4i} * \text{DependentStatus}_{i} + \\
\beta_{5i} * \text{InstitutionSelectivity}_{i} + \epsilon_i
$$

The results are presented in tables 4 and 5. The results from the regression tell us many things about the variables under examination. First, it does appear that college major is almost always a determinate factor in calculating the probability of default. We see this in two ways. If using an \(\alpha\)-level of 0.10, we would be able to reject the null hypothesis for all but one of the \(\beta\)-values associated with their respective majors. We see that liberal arts and education majors are robust estimators, as their p-values for their \(\beta\)-estimates are particularly significant. It appears that health care does not provide a significant result, and business just beats the 0.10 threshold, with a p-value of 0.098.

Further, the odds ratio from the choice of college major are very interesting as well. We see that if a student is a white, dependent liberal arts major from a highly selective university, they are 2.7595 times as likely to default on their debt as the base case – a white, dependent engineering student from a highly selective university. If the liberal arts major decides that education is her passion instead, she then becomes 3.2645 times as likely to
### Table 4 – Odds Ratio Results for Logit Regression

#### Odds Ratio Results

<table>
<thead>
<tr>
<th></th>
<th>Odds Ratio</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
<th>t</th>
<th>p-value</th>
<th>b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.0063</td>
<td>0.0029</td>
<td>0.0136</td>
<td>-12.8737</td>
<td>0.0000</td>
<td>-5.0726</td>
</tr>
<tr>
<td>Field of study: undergraduate (5 categories – STEM excluded to avoid dummy trap)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liberal arts</td>
<td>2.7505</td>
<td>1.3401</td>
<td>5.6824</td>
<td>2.7713</td>
<td>0.0061</td>
<td>1.0151</td>
</tr>
<tr>
<td>Health Care</td>
<td>1.2879</td>
<td>0.5075</td>
<td>3.2689</td>
<td>0.5358</td>
<td>0.5927</td>
<td>0.2530</td>
</tr>
<tr>
<td>Business</td>
<td>2.1013</td>
<td>0.8714</td>
<td>5.0673</td>
<td>1.6635</td>
<td>0.0978</td>
<td>0.7426</td>
</tr>
<tr>
<td>Education</td>
<td>3.2645</td>
<td>1.3537</td>
<td>7.8723</td>
<td>2.6505</td>
<td>0.0087</td>
<td>1.1831</td>
</tr>
<tr>
<td>Transcript: Credits repeated</td>
<td>1.0308</td>
<td>0.9965</td>
<td>1.0662</td>
<td>1.7695</td>
<td>0.0783</td>
<td>0.0303</td>
</tr>
<tr>
<td>Race/ethnicity (5 categories - White excluded to avoid dummy trap)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>3.7813</td>
<td>2.0916</td>
<td>6.8360</td>
<td>4.4295</td>
<td>0.0000</td>
<td>1.3301</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2.1314</td>
<td>0.8745</td>
<td>5.1952</td>
<td>1.6751</td>
<td>0.0955</td>
<td>0.7568</td>
</tr>
<tr>
<td>Asian</td>
<td>0.8669</td>
<td>0.1058</td>
<td>7.1007</td>
<td>-0.1339</td>
<td>0.8936</td>
<td>-0.1428</td>
</tr>
<tr>
<td>Other or Mixed</td>
<td>2.9389</td>
<td>0.9808</td>
<td>8.8057</td>
<td>1.9372</td>
<td>0.0541</td>
<td>1.0780</td>
</tr>
<tr>
<td>Dependency status in 2007-08 (2 categories – Dependent Excluded to avoid dummy trap)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>1.7042</td>
<td>1.0594</td>
<td>2.7416</td>
<td>2.2112</td>
<td>0.0282</td>
<td>0.5331</td>
</tr>
<tr>
<td>Selectivity of 2007-08 bachelor's degree institution (4 categories – Highly Selective Excluded)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderately selective</td>
<td>1.3462</td>
<td>0.7423</td>
<td>2.4412</td>
<td>0.9848</td>
<td>0.3259</td>
<td>0.2973</td>
</tr>
<tr>
<td>Minimally Selective</td>
<td>1.7664</td>
<td>0.8028</td>
<td>3.8864</td>
<td>1.4228</td>
<td>0.1564</td>
<td>0.5689</td>
</tr>
<tr>
<td>Open Admission</td>
<td>1.6670</td>
<td>0.5852</td>
<td>4.7482</td>
<td>0.9627</td>
<td>0.3369</td>
<td>0.5110</td>
</tr>
</tbody>
</table>
## Table 5 – Measure of Fit and Hypothesis Tests for Logit Regression

<table>
<thead>
<tr>
<th>Measures of Fit</th>
<th>Hypothesis Testing Results</th>
<th>Wald F</th>
<th>Num .DF</th>
<th>Denom .DF</th>
<th>Probability F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative log-likelihood (Pseudo R^2)</td>
<td></td>
<td>0.0727</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-2 log-likelihood</td>
<td>Overall Fit</td>
<td>4.9928</td>
<td>13</td>
<td>188</td>
<td>0.0000</td>
</tr>
<tr>
<td>Log likelihood, intercept-only model</td>
<td>Field of study: undergraduate (5 categories)</td>
<td>3.0154</td>
<td>4</td>
<td>197</td>
<td>0.0192</td>
</tr>
<tr>
<td>Log likelihood, full model</td>
<td>Transcript: Credits repeated</td>
<td>3.1310</td>
<td>1</td>
<td>200</td>
<td>0.0783</td>
</tr>
<tr>
<td>Likelihood ratio (Cox-Snell)</td>
<td>Race/ethnicity (with multiple)</td>
<td>5.8746</td>
<td>4</td>
<td>197</td>
<td>0.0002</td>
</tr>
<tr>
<td>Likelihood ratio (Cox-Snell) Maximum</td>
<td>Dependency status in 2007-08</td>
<td>4.8896</td>
<td>1</td>
<td>200</td>
<td>0.0282</td>
</tr>
<tr>
<td>Likelihood ratio (Estrella)</td>
<td>Selectivity of 2007-08 Bachelor’s degree institution</td>
<td>0.7746</td>
<td>3</td>
<td>198</td>
<td>0.5094</td>
</tr>
</tbody>
</table>

Default as her engineering counterpart. Additionally, through a joint F-test that determines whether or not the variables together are significant, we see college major is one of the most significant variables in the model, delivering a p-value of 0.019. There is only one other variable that is more useful to the explanatory power of the model, and that is the dummy variable race; black and Hispanic students are at much higher odds of defaulting on student loans than white and Asian students.

Note that I created this regression using the PowerStats resource from the Institute for Education Sciences. I wasn't given direct access to the data, so I could not create my own variables that measured the interaction between the stock variables that IES provided, and I could not run tests on the data other than the standard list that IES provided. If I had been granted access to the data, I would have liked to create interaction variables that I thought might help explain more of the variation. In particular, a variable like Major*GPA would have been very useful, as I would assume that there is much variation within different majors (except, notoriously, between education majors) in terms of GPA achievement, which is a big indicator as to who is likely to be employed or earning a sufficient salary to repay their debts.

**Implications:**

From the statistical tests above, we see that different majors default at different rates, and
that college major is a valuable predictor for likelihood of default. But what are the effects that this observation could have on the economy, and why is public policy necessary to combat these effects?

One implication is that there will be a suboptimal allocation of human capital in the labor market, with many suppliers of labor choosing to specialize in majors that will deliver high monetary returns as opposed to high social returns. This exact topic was studied by Rothstein and Rouse (2010). When an elite private university adopted a no-loans aid policy, Rothstein and Rouse conducted a difference-in-differences regression to study the effect that this had on educational and early career occupational decisions after the debt-free students entered the labor market. They found that debt free students shifted out of industries with high-average salaries and into lower-salary industries, such as non-profits, education, or governmental work. In addition, through their regression model, they estimate that an extra $10,000 in student debt reduces the likelihood that a student will take a job in nonprofits, government, or education by 5 or 6 percentage points. Finally, they notice a small effect on major choice. They claim that debt induces a small shift away from “consumption”-type majors (presumably liberal arts) and towards majors that serve as a means of employment. However, given the dataset that the authors are using – graduates from an elite private university – this shift is probably understated, as almost all majors from the university are highly qualified and very employable upon graduation.

As illustrated in Figure 2, those that have the highest economic burden put upon them are those attending college whose parents are in the poorest fifth of household income. This means that we would expect to see the result from Rothstein and Rouse amplified amongst the poorest Americans, as they will likely need to take out more debt than any other group.

Public policy that helps to reduce the debt burden of majors will help correct the imbalance in the labor market, allowing people to make decisions about their postsecondary education and post-graduate occupation that more closely reflect their interests, rather than focusing solely on repayment of loans. In Part II of this paper, I examine a perfect competition model of postsecondary education, from which I examine a policy that could potentially reduce the debt burden of majors with the highest probability of default.

**PART II – A MODEL OF POSTSECONDARY EDUCATION AND AN EXAMINATION OF DIFFERENTIAL TUITION PRICING**

In Part I, I demonstrated that graduates from different majors default at different rates, and that there is a significant relationship between a student’s choice of major and their rate of default on debt. In Part II, I derive a general perfect competition model of post-secondary education, and then further develop this model to examine a policy designed to combat major-dependent default called “differentiated tuition pricing.”

**a. The General Perfect Competition Model of Postsecondary Education**

I will use a two-period probability tree constructed at right (second chart) to derive my demand curve. The logic stems from Becker’s seminal work on human capital investment and is as follows: in period 1, students either choose to go to college or not. If they opt out of going to college, they will earn a low income \(Y_{LO}\) in periods 1 and 2 (1964). However, if they choose to go to college, they are faced with two possibilities. Either they graduate with probability \(p\) and earn \(Y_{HI}\) income minus
**Figure 2 – Data from College Board and US Census**

**Change in portion of household income needed to pay all annual costs at a four-year public university, 1971-2011 (2012 Dollars)**

- **Goes to college**
  - Probability \( p \)
- **Doesn't go to college**
  - Probability \( 1-p \)

**Period 1**
- **Graduates with probability** \( p \)
- **Doesn't graduate with probability** \( 1-p \)

**Period 2**
- **\( Y_{HI} - T \)**
- **\( Y_{LO} - T \)**

**Source:** US Census Bureau; College Board
costs of attendance (T), or they don’t graduate with probability \(1 - p\) and earn \(Y_{LO}\) minus cost of attendance. Thus, the student will decide to go to college if the following inequality holds:

\[ p \cdot u(Y_{HI} - T) + (1 - p) \cdot u(Y_{LO} - T) \geq u(Y_{LO}) \]

I will use a constant absolute risk aversion utility function to model preferences, which takes the form:

\[ u(c) = -e^{-c} \]

These utility curves follow the standard assumptions, i.e., that the consumers preferences are concave and upward sloping.

**Demand**

By rearranging and isolating \(p\) from the inequality above, we see that if

\[ p_i \geq \frac{1 + u(T)}{1 + u(Y_{HI} - Y_{LO})} \],

student \(i\) will choose to go to college. This represents a “cutoff point” of probability for a student attending university, which I will call \(\alpha(T)\). Assuming that \(p \sim U[0,1]\), the actual proportion of enrolled students, which I will call \(Q_D(T)\), is

\[ 1 - p_i = Q_D(T) = 1 - \frac{1 + u(T)}{1 + u(Y_{HI} - Y_{LO})} \]

This is a function dependent upon tuition that returns a quantity of students enrolled. In order to determine a demand function, I invert this function. After some algebra, the result for the demand curve is as follows:

\[ T = -\ln\left[1 + u(Y_{HI} - Y_{LO})\right][Q_D - 1] + 1 \]

This curve follows expectations, as it is monotonically decreasing, as \(dQ_d/dT < 0\) at all \(Q_d\)

**Exogenous Parameters for the Demand Model**

1. **Price Variables**

This model of the market for higher education will assume that providers of public university education engage in perfect competition.

In perfect competition, a university’s profit is given by

\[ \pi = T \cdot Q_D - C(Q_D) + g \cdot Q_D \]

Which generates the first order condition

\[ 0 = T - C + g \quad \text{or} \quad T + g = C. \]

The average tuition rate for an in-state student at a public, four-year university is $11,000 (Gordon and Hedlund 2014). Additionally, the expected lifetime income of a high school graduate is roughly $1.2 million (Longley 2014). If the high school graduate was to work for 45 years to achieve this income, assuming that across this time there was a modest interest rate of 1.5%, this stream of income has a present value of $614,057.93. Thus, the ratio of expected costs for four years at a public university to present value of expected income of a high school graduate is \([($11000 \times 4)/614,057.93] = 0.0716\).

However, this is only the portion of costs that students pay to a public four year university in the form of tuition. The government also contributes to the costs of a public university, and changes in government support will have an effect on price. On average, the government pays $11,400 per full time enrollee per year (Gordon and Hedlund 2014). Using the same methodology as above, the ratio of governmental contribution over four years to the present value of expected income of a high school graduate is \(g = [($11000 \times 4)/614,057.93] = 0.0743\). From the equilibrium price and government expend–
itures, we see that the total cost for a university for a student enrolled for four years (c) is equal to 0.14 of the present value expected lifetime earnings of a high school graduate.

2. Income Variables

The variables related to expectations about future income should be determined exogenously from data in order to accurately model demand, as they will have a strong impact on elasticity. For instance, from data, we see that the “college premium,” or the ratio of lifetime earnings of a college graduate to that of a high-school graduate, is ~1.66 (College Board 2014). However, in order to achieve an enrollment rate of ~0.66 at T=0.0716, which corresponds to the actual proportion of high school graduates enrolled in universities, I set $Y_{LO}=1$ and $Y_{HI}=1.22$ (Bureau of Labor Statistics 2014).

These parameters are summarized below, and the model is constructed in Figure 3.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meaning</th>
<th>Value</th>
<th>Source(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$Y_{LO}$</td>
<td>Standardized lifetime income of high school graduates</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>$Y_{HI}$</td>
<td>Standardized lifetime income of college graduates as proportion to high school graduates (&quot;College Premium&quot;)</td>
<td>1.22</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Government subsidization per full time enrollee for four years expressed as proportion to present value of $Y_{LO}$</td>
<td>0.0743</td>
<td>(Gordon and Hedlund 2014) and (Longley 2014)</td>
</tr>
<tr>
<td>C</td>
<td>Total costs faced by university for one student over four years expressed as proportion to present value of $Y_{LO}$</td>
<td>0.1458</td>
<td>Author’s calculation ($T_{equilibrium} + G = C$)</td>
</tr>
</tbody>
</table>
One way to test the efficacy of this model is to examine past policy in the postsecondary education market and see how empirical results compare to the predictions of the model. An example of such a policy is the American Recovery and Reinvestment Act of 2009. The American Recovery and Reinvestment Act of 2009 contained measures that were intended to alleviate the stresses that the economic collapse of 2007 put on public universities. States’ budgets were put under extremely high pressure, and appropriations to public universities were one of the first line items to be purged (State Higher Education Finance FY 2012, 2013). The ARRA was intended to fill the budgetary gaps left by the states in order to prevent either massive tuition hikes to cover the lost appropriated revenues or a large-scale reduction of costs by the universities themselves. The stimulus was intended to provide a temporary subsidy to universities so that they could maintain FY 2008 or 2009 level of public appropriations, depending on whichever was higher (Postsecondary Education Spending Priorities for the American Recovery and Reinvestment Act of 2009).

Based on predictions from the model with perfect competition, seen above, this policy was a response to a decrease in $g$, and thus
targeted supply. Because \( g \) decreased exogenously due to the financial crisis of 2007, it was evident to policy makers that tuition levels were going to increase in response. Thus, the federal government stepped in and provided an increase in \( g \) in order to compensate for decreased state-level funding. Their goal was not to decrease tuition levels, but to keep them constant.

This model can demonstrate the efficacy of the policy. Given that \( g \) decreased by an average of 23% across America after the financial crisis, what would have happened to tuition and enrollments if the government hadn’t stepped in (State Higher Education Finance FY 2012, 2013)? If we decrease \( g \) by 23%, we see that tuition \((T = C - g)\) would have to increase by 23%, changing \( T \) from 0.07 to 0.087. This would result in a 12% decrease in enrollments, with \( Q_D \) changing from 0.66 to 0.58.

As it turns out, tuition levels increased by 26.9% from 2009 to 2012, so this policy appears to have failed in quelling the increase in tuition due to a decrease in \( g \) (College Board 2014). However, over this same time period, enrollments dropped only by 5.8% which is less severe than the 12% predicted by the model (Bureau of Labor Statistics 2014, 2010).

What this indicates is that, in reality, the elasticity of demand for postsecondary education is lower. This should not be surprising, as \( Y_{HI} \) in reality is \(~1.66\), which would mean that, due to the higher expected lifetime payoff, consumers would be less price sensitive than with a \( Y_{HI} = 1.22\), like in this model.

b. Differentiated Tuition Pricing

A policy solution that has not been thoroughly examined, according to higher education research, is differentiated tuition pricing (Ehrenberg 2012). As was shown in the investigatory data analysis in Part I, some majors have much higher expected earnings than other majors. Assuming that students behave rationally, they must take this into account when deciding what major to pursue. Research by Rothstein and Rouse shows that positive debt creates a substitution effect for college students, pushing them toward more “career-oriented” majors (2010).

Further, within universities there are often strict admissions processes that determine which students enter the most competitive majors. University departments or schools will choose students that they think will be most likely to follow through and graduate from the program successfully. So we see that students of high ability are more likely to be admitted to majors that have the highest rates of return, and we can define high ability in this case to be students with a high \( p \) value, or a high probability of graduation.

Now I refer back to the inequality which was used to derive the demand curve in the original model, with \( p \sim U[0,1] \) (see below).

\[
p * u(Y_{HI} - T) + (1 - p) * u(Y_{LO} - T) \geq u(Y_{LO})
\]

From this, we see that, the higher the \( p \), the higher the consumer surplus of the individual at a fixed tuition rate.

Therefore, one policy solution that could be enacted is to, in effect, distribute the consumer surplus across majors more evenly, subject to the constraint that the university covers all costs and seeks, at most, modest profits. In other words, this can be viewed as a means-testing policy to help overburdened students with the lowest probability of graduation in majors that will not deliver the same returns in the labor market as will those pursued by students with high \( p \).

This can be achieved by making tuition, which was perfectly competitive in the
previous model, a linear equation dependent upon probability of graduation. In other words, tuition will be determined as follows:

\[ T = T_0 + T_1 \cdot p \]

Thus, as \( p \) increases, tuition will increase. In this model, the university is acting as a perfect price discriminator and is achieving as much surplus as possible given a \((T_0, T_1)\) combination. Further, the higher \( T_1 \) is, the more progressive the transfer from those with high ability to low ability will be.

**THE PLANNER PROBLEM**

The planner attempts to solve the following problem:

\[
\max \int_0^1 \max\{p \cdot u(Y_{HI} - (T_0 + T_1 \cdot p)) + (1 - p) \cdot u(Y_{LO} - (T_0 + T_1 \cdot p)), u(Y_{LO})\} dp
\]

Subject to the constraint:

\[
\int_0^1 [e(p) \cdot (T_0 + T_1 \cdot p) - e(p) \cdot (c - g)] dp \geq 0
\]

Where:

\[
e(p) = \begin{cases} 
0 & \text{if } p \cdot u(Y_{HI} - (T_0 + T_1 \cdot p)) + (1 - p) \cdot u(Y_{LO} - (T_0 + T_1 \cdot p)) < u(Y_{LO}) \\
1 & \text{if } p \cdot u(Y_{HI} - (T_0 + T_1 \cdot p)) + (1 - p) \cdot u(Y_{LO} - (T_0 + T_1 \cdot p)) \geq u(Y_{LO})
\end{cases}
\]

Expressed in words, this model maximizes consumer surplus for college attendees (those whose expected utility from attending college given a specified tuition rate is greater than their expected utility from not attending college) subject to the constraint that universities at least cover their costs \((c - g)\) for the students that decide to enroll. This model creates an abstracted university with a hundred different majors and a hundred different potential students. Student \( i \) is paired with a major \((m)\) based on their probability \((p)\) of graduation. Some students will choose not to attend the university if they know that the payoff of their major, which is a function of their probability of graduation, does not exceed their payoff should they enter the labor force without a college degree. For those who receive a positive payoff, their individual consumer surplus can be defined as:

\[ CS_i = \{p_i \cdot u(Y_{HI} - (T_0 + T_1 \cdot p_i)) + (1 - p_i) \cdot u(Y_{LO} - (T_0 + T_1 \cdot p_i))\} - u(Y_{LO}) \]

These integrals, as they stand, are very difficult to evaluate. I will use the “midpoint rule” to approximate a solution. The midpoint rule converts integrals into sums, which modifies the model to the following form:

\[
\frac{1}{n} \sum_{i=1}^{n} \max\{p_i \cdot u(Y_{HI} - (T_0 + T_1 \cdot p_i)) + (1 - p_i) \cdot u(Y_{LO} - (T_0 + T_1 \cdot p_i)), u(Y_{LO})\}
\]
Subject to the constraint:

\[ \frac{1}{n} \sum_{i=1}^{n} e(p_i) (T_0 + T_1 \cdot p_i) - e(p_i) (C - g) \geq 0 \]

Where:

\[ e(p) = \begin{cases} 
0 & \text{if } p \cdot u(Y_{HI} - (T_0 + T_1 \cdot p)) + (1 - p) \cdot u(Y_{LO} - (T_0 + T_1 \cdot p)) < u(Y_{LO}) \\
1 & \text{if } p \cdot u(Y_{HI} - (T_0 + T_1 \cdot p)) + (1 - p) \cdot u(Y_{LO} - (T_0 + T_1 \cdot p)) \geq u(Y_{LO}) 
\end{cases} \]

Tuition Rates

I examined sixteen different combinations of \((T_0, T_1)\), with four different levels of \(T_0\) and four different levels of \(T_1\). I chose points that would give prices close to the equilibrium \(T\) – as determined from the previous model – so that enrollments would not be greatly perturbed. The combinations are as follows (seen at right):

<table>
<thead>
<tr>
<th>(T0, T1)</th>
<th>0.066+0.00365*p</th>
<th>0.066+0.00370*p</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.066+0.00375*p</td>
<td>0.066+0.00380*p</td>
<td>0.067+0.00365*p</td>
</tr>
<tr>
<td>0.067+0.00370*p</td>
<td>0.067+0.00380*p</td>
<td>0.067+0.00375*p</td>
</tr>
<tr>
<td>0.067+0.00380*p</td>
<td>0.068+0.00365*p</td>
<td>0.068+0.00380*p</td>
</tr>
<tr>
<td>0.068+0.00365*p</td>
<td>0.068+0.00380*p</td>
<td>0.068+0.00375*p</td>
</tr>
<tr>
<td>0.068+0.00375*p</td>
<td>0.069+0.00370*p</td>
<td>0.069+0.00380*p</td>
</tr>
<tr>
<td>0.069+0.00370*p</td>
<td>0.069+0.00380*p</td>
<td>0.069+0.00380*p</td>
</tr>
<tr>
<td>0.069+0.00380*p</td>
<td>0.069+0.00380*p</td>
<td>0.069+0.00380*p</td>
</tr>
</tbody>
</table>

Results

As shown in Figure 4, all of the points of consumer surplus in green indicate a higher overall consumer surplus than the previous flat-rate tuition policy where \(T=0.0716\). However, the university will choose the point where their profit is maximized or, in this case, where their loss is minimized. From the results we see that universities will choose \((T_0, T_1) = (0.068, 0.00365)\). At this point, universities are losing 0.00114 per student, which, when readjusted to nominal terms, ends up being about $150 per student per year.

Therefore, since the policy does not end up being revenue neutral, it is worth examining whether or not the additional government expenditure that would be required \((0.00114*Q_D)\) would be more productive in terms of consumer surplus if it was applied to the model of constant tuition across all \(p_i\). I do this by calculating the surplus for the following model:

\[ \frac{1}{n} \sum_{i=1}^{n} \max\{p_i \cdot u(Y_{HI} - (T - 0.00114)) + (1 - p_i) \cdot u(Y_{LO} - (T - 0.00114)), u(Y_{LO})\} \]

2 The result obtained by my thesis advisor, Prof. Grey Gordon, was slightly different, with the optimal \((T_0, T_1) = (0.0679, 0.0031)\). This value derives a higher consumer surplus. However, this result suffered from the fact that, at every point of probability, the tuition in the differentiated model was lower than the tuition in the flat-rate model, so, intuitively consumer surplus would be higher. I chose a local maxima that I thought reflected an interesting result, because with this choice of \((T_0, T_1)\), when \(p\) is very high, tuition actually exceeds the level of tuition in the flat rate model.
I then compared it to the result obtained from the optimal (T0, T1) combination above, and found that the differentiated tuition model still produced marginally more consumer surplus than did the flat rate tuition policy with the added government subsidy.3

**Figure 4 – Optimal (T0, T1) Combination and Resulting Tuition and Consumer Surplus Levels at Different Probabilities**

<table>
<thead>
<tr>
<th>T1</th>
<th>0.00365</th>
<th>0.0037</th>
<th>0.00375</th>
<th>0.0038</th>
</tr>
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<tbody>
<tr>
<td>T0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.066</td>
<td>-0.34221026</td>
<td>-0.34221261</td>
<td>-0.342223497</td>
<td></td>
</tr>
<tr>
<td>0.067</td>
<td>-0.342532152</td>
<td>-0.342554645</td>
<td>-0.342565892</td>
<td></td>
</tr>
<tr>
<td>0.068</td>
<td>-0.342491667</td>
<td>-0.342514337</td>
<td>-0.342525672</td>
<td></td>
</tr>
<tr>
<td>0.069</td>
<td>-0.34283433</td>
<td>-0.342857023</td>
<td>-0.342868369</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T1</th>
<th>0.00365</th>
<th>0.0037</th>
<th>0.00375</th>
<th>0.0038</th>
</tr>
</thead>
<tbody>
<tr>
<td>T0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.066</td>
<td>-0.003126201</td>
<td>-0.003092951</td>
<td>-0.003059701</td>
<td></td>
</tr>
<tr>
<td>0.067</td>
<td>-0.002126201</td>
<td>-0.002092951</td>
<td>-0.002059701</td>
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<tr>
<td>0.068</td>
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<td>-0.001074201</td>
<td>-0.001040701</td>
<td></td>
</tr>
<tr>
<td>0.069</td>
<td>-7.42013E-05</td>
<td>-4.07013E-05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T at p = .36</th>
<th>Original Model</th>
<th>Differentiated Tuition Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Tuition</td>
<td>$11,000.00</td>
<td>$10,640.70</td>
</tr>
<tr>
<td>Consumer Surplus at T = .36</td>
<td>-0.3674</td>
<td>-0.3666</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T at p = .5</th>
<th>Original Model</th>
<th>Differentiated Tuition Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Tuition</td>
<td>$11,000.00</td>
<td>$10,719.15</td>
</tr>
<tr>
<td>Consumer Surplus at T = .5</td>
<td>-0.3566</td>
<td>-0.3559</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T at p = .75</th>
<th>Original Model</th>
<th>Differentiated Tuition Model</th>
</tr>
</thead>
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<tr>
<td>Nominal Tuition</td>
<td>$11,000.00</td>
<td>$10,859.23</td>
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<tr>
<td>Consumer Surplus at T = .75</td>
<td>-0.3370</td>
<td>-0.3367</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>T at p = 1</th>
<th>Original Model</th>
<th>Differentiated Tuition Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Tuition</td>
<td>$11,000.00</td>
<td>$11,006.99</td>
</tr>
<tr>
<td>Consumer Surplus</td>
<td>-0.3175</td>
<td>-0.3175</td>
</tr>
</tbody>
</table>

3 Their consumer surplus values were -0.34249 for the differentiated model and -0.34250 for the flat rate model.
Implications

This model does not reflect how the policy would work in reality. In actuality, there is no matching scheme that pairs students with majors based on probability of graduation, which serves as a proxy indicator for ability. However, as mentioned previously, many top performing students do look at future income potential when deciding on a given major, and then schools sort according to ability based on an internal admissions process.

Schools of engineering, business, and nursing would presumably be the schools of choice for many students and would then admit only those that they felt had a high enough p-value; schools of liberal arts, social work, and education would be the schools that would admit those with lower p-values. Recalling the empirical work in Part I, we found that liberal arts and education majors were substantially more likely to default, and thus they would be the ones to benefit most from this policy.

The policy does accomplish its purpose. It increases the consumer surplus of the students least likely to graduate, which corresponds to a decrease in the debt burden of these students. At the threshold of those making the decision to attend college (p=.36), we see that this student would pay \( T = 0.0693 \) (or \$10,640/year), as opposed to the flat rate of \( T = 0.0716 \) (or \$11,000/year). This allows the student at the margin to pay less for their degree, which should lower future monthly payments on their debt, helping to preventing default.

The story is similar across most levels of probability, except when \( p \) is sufficiently high that the tuition for these students exceeds what it does in the flat rate model (values close to \( p=1 \)). However, it is unclear from the results whether or not this policy would be aggressive enough to serve its intended purpose if it were implemented. It would only reduce debt by slightly less than \$1500 over four years for those most vulnerable to default.

Differential Pricing in Practice

As it turns out, many schools across the country have adopted differential tuition pricing. In a survey of 165 public research universities, it was found that 45% of schools have at least one undergraduate program with differential tuition or fees in 2008, with most implementing them in the past decade (Nelson 2008). These price changes were most commonly enacted in undergraduate programs such as engineering, business, and nursing. One extraordinary example would be nursing at the University at Colorado at Denver, which now has a price differential of 147% above base tuition (Nelson 2008).

With these sometimes dramatic hikes in tuition, it would be important to examine how differentiated tuition affects degree production by field. In other words, would too many people opt out of higher cost professional undergraduate degrees despite their higher earning and employment potential if their price increased? Kevin Stange studied these effects and found that differential pricing is associated with a sizable reduction in the fraction of degrees granted in engineering and business schools (Stange 2013).

Thus, there would be an induced effect on the composition of the labor market. As discussed earlier, in Rothstein and Rouse we see that debt burdens tend to lead students to shift into majors that have a better professional payoff (2010). If the price of these professional majors increased, perhaps we would see graduated shifting into majors that more closely reflect their intellectual preferences, with more people working for social rather than individual benefit.

(continued on page 28)
CONCLUSION

The topic of student debt seems to be perpetually gaining momentum and has led to widespread concern among both policymakers and students. I chose to investigate the relationship between college major and the likelihood of default and found that there are differences in default rates between majors, with social workers defaulting significantly more often than do other majors. I also ran a regression, from which I determined that college major is a good predictor of likelihood of default: being a liberal arts or education major increases your odds of defaulting by 2.7595 or 3.2645 times, respectively.

I examined differential tuition pricing as a means to help correct this imbalance. It turns out that, if carefully implemented, differential tuition pricing could help reduce the debt burden of majors most vulnerable to default – those with the lowest probability of graduation. And, as it turns out, many schools have already implemented a differential tuition pricing scheme. Findings have shown that generally people shift out of the majors that were most competitive and delivered the highest returns, as these were most often the degrees targeted by the pricing scheme. However, the efficacy of differential tuition as a means to prevent default is not certain. In my model, students at most risk of defaulting saved at most $1500 over the course of four years, which ends up being about 2% of total tuition paid to the university. Perhaps there are better ways to approach this issue.

One alternative way that seems more feasible and effective is income-based repayment, in which graduates repay their debts at a capped percentage of their current income. This policy would induce less of a behavioral shift in the choice of major than differential pricing. In addition, it targets the core problem with student debt default: Despite college being a worthwhile investment in the long-run, the returns are not often seen in the short run, and this is precisely when the payments are due. Therefore, making students pay back their loans over a short duration immediately after graduation (often over a 10-15 year span, compared to 20 or 30 year mortgages) can easily put them in a position where they are unable to repay and go into delinquency or default (Dynarski & Kreisman 2013). Changing how repayment is structured could yield great results for those concerned about student debt default, and more work should be done to examine its effectiveness.

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About the Author

Terrence Neumann is a senior majoring in Economics and Mathematics. He has long term plans to pursue a graduate degree, but is currently looking for a job as a public policy researcher. He keeps busy by playing guitar, running, writing, and living in a housing cooperative with his twelve housemates.

Artwork - “Riders” by Rebecca Collins
BOSNIA AND HERZEGOVINA: A NATION, DIVIDED

SARAH BIGGS

artwork by MIMI PINNOW
SELECT POLITICIANS IN BOSNIA AND HERZEGOVINA (BiH) have fueled the country’s present ethnic divide by preventing society from dismantling longstanding disagreements over ethnic rights in hopes of consolidating personal power. These politicians use the Foucauldian concept of “power-knowledge” to help increase the divide. The development of separate federations, education systems, and political parties dominated by nationalist ideals has made the divide clearer than ever. However, this can only last for so long. The uprisings in early 2014 demonstrate how the citizens now see past the superficial democratic regime and understand the negative social, political, and economic consequences of division. These biases can be deconstructed in much the same way that Edward Said’s notion of Orientalism deconstructs Samuel Huntington’s “Clash of Civilizations.” In discussing this matter, David McDonald’s comparison of “relational history” to the Israel-Palestine conflict offers an analogous territorial situation that can be used to analyze BiH. Ultimately, the benefits that popular culture offers in creating a national identity among the citizens of BiH despite ethnic or religious identity may help overcome the persisting issue of ethnic separation.

HISTORY OF BOSNIA AND HERZEGOVINA’S ETHNIC DIVERSITY AND THE PERPETUATED ETHNIC DIVIDE

The territorial history of BiH explains its ethnic and religious diversity. In ancient times, the area was known as Illyricum. Around the second century BC, the Roman Empire conquered Illyricum and renamed it Dalmatia (Infoplease). After the fall of the Roman Empire, the country became part of the Byzantine Empire. Later, Slavic peoples began to settle in the area. Finally around 1200 AD, the territory won its independence and thrived as a Christian state for approximately 260 years. The spread of the Ottoman Empire in roughly 1384 introduced Islam to the country; many Christian Slavs converted, and the religion soon became prominent in the country (Infoplease). Although within the Ottoman Empire Christians were not actively persecuted by the government, Muslims were still given privilege, causing some tension between the different demographics. Because the Ottomans allowed for their subjects to maintain their national identities, nationalism among
the different ethnic groups did not dissipate; rather it increased. The people began to define themselves even further by their religious associations, and towards the end of Ottoman rule in the territory, Serbia grew stronger and began to work for a larger and more powerful nation.

Relations between Serbia and BiH tensed after Austria-Hungary annexed Bosnia in reaction to the Russo-Turk War of 1877-78. The tension was primarily due to the fact that Serbia needed the Bosnian territory in its pursuit of becoming a greater nation. Tensions only increased throughout the end of the nineteenth into the twentieth century, when ethnic conflict came to a head during the Balkan Wars. This was especially apparent between the Orthodox Serbs and the more populous Muslims. Serbia’s long-held desire to create a greater Serbian nation led to the historically notable shooting of Archduke Franz Ferdinand of Austria-Hungary by a Serbian nationalist radical in the Bosnian capital of Sarajevo. This event ensured a combative relationship between the two countries and sparked a global conflict. Following World War I, Serbia annexed BiH into a conglomerate state known as Yugoslavia (Infoplease). After World War II, Yugoslavia became a Communist state under the rule of authoritarian Josip Broz Tito, though it remained the only state in the region that avoided Soviet control. At this point, Yugoslavia contained the most diverse population consolidated under a singular regime. The three primary groups included: Eastern Orthodox Serbs, who made up thirty-one percent of the population; Roman Catholic Croats, who made up seventeen percent; and Muslim Bosniaks, who made up forty-four percent of the population (Infoplease).

Following the split of Yugoslavia in 1991, the three ethnic groups, divided by history and religion, began to renew the long-standing conflict that had often flared up between the Serbs and the other ethnicities within Bosnia. This ultimately led to the Bosnian War, which took place from 1992 to 1995. The rebel Bosnian Serbs, with the help of the Yugoslav Serbian Army, first laid siege in the capital city of Sarajevo, killing over 100,000 Bosniaks. It became clear that this battle had discriminatory foundations akin to an ethnic cleansing in claiming the Bosnian territory. By the end of 1992, the Serbs occupied over sixty percent of the country (Infoplease). Unfortunately, before the United Nations (UN) took an active role in the conflict in August 1995, Serb rebels found their way into UN safe areas such as Tuzla, Zepa, and Srebrenica. That July, Europe saw its most horrific massacre since the Holocaust in the Muslim city of Srebrenica, with the death of more than 8,000 men and the forced removal of almost 30,000 women and young children (Prosecutor v. Radislav Krstic 2004).

The war ended with the Dayton Accords in 1995. The peace talks, sponsored by the United States, created two territories within BiH: the Republika Srpska (RS) and the Federation of Bosnia and Herzegovina. Although all three ethnic entities exist within both territories, the government still organizes itself around the Bosnian Serb majority in RS and the Bosnian Croat and Bosniak majority in the Federation. The Dayton Accords also called for a triumvirate presidency, meaning three presidents specifically elected by and representative of the three primary ethnicities (European Forum for Democracy and Solidarity 2014). All presidents are elected for a four-year term, while the permanent position of chief president rotates every eight months. To illustrate, the Bosniak president takes the principal position while the Croat and Serb electors serve as vice-presidents. Eight months later, the Serbian official becomes the lead president, and eight months after that, the Croat president.
This triumvirate exists only at the national level. Each territory also has its own president, police, and other political representatives. This complex system of government takes up about sixty percent of the nation’s budget every year (European Forum for Democracy and Solidarity 2014). As can easily occur in an equally representative system, it is often difficult for any governing faction with an individual agenda to muster enough support to pass meaningful legislation. This issue still confronts BiH today and causes many citizen complaints.

Despite the efforts of the Dayton Accords, ethnic tensions have only continued to grow. Though it attempted to end the war, the accord only seemed to create and “[reinforce] separatism and nationalism at the expense of integration” (BBC News 2014). Rather than resolve the issues at hand, the establishment of ethnic territories created even more tension and deadlock throughout the country as a whole. The physical borders within the country exist as a constant reminder of the separation and reinforce the differences that are felt among the populace. Despite years of efforts, BiH is still unable to gain membership in the European Union (EU), which ordered BiH amend its constitution to better protect minority rights. Under the existing system, the three majority ethnic groups dominate political rights: no one outside of these demographic units can run for office. The proposed amendments, issued by the Human Rights court, would allow ethnic minorities to have a chance to run for office and have their interests represented (Center for EU Enlargement Studies 2013). The intended result of such legislation would be the abolition of the ethnically driven political system to ensure equal political rights for all citizens of BiH.

One of the primary actors in the rehabilitation of BiH is the Office of High Representative (OHR), an international organization tasked with implementing certain aspects of the peace accords. Their ultimate goal is to resolve the ethnic division and to create a fair and equal government capable of standing on its own without international support. However, the OHR works directly with the same elite politicians of the country who are either unable or unwilling to diverge from the country’s established order (Divjak and Pugh 2008). Many of these politicians depend on the support of ethno-nationalistic parties, which many citizens see both as a source of fraud and theft in political arenas and as opponents of criminal justice sanctions and officials. As Divjak and Pugh explain, “as long as national politicians benefit from maintaining non-transparent, semi-autonomous, feudal domains, and rely on unaccountable networks supported by financial and economic resources at their disposal, the public sector will remain unable to address effectively Bosnia’s governance and corruption problems” (2008). By using their power in a way that perpetuates existing ethnic divisions, BiH’s politicians act to the detriment of the nation's well-being. While its citizens struggle with the fear and economic distress caused by the war, those with power reap the benefits of a divided Bosnia.

Politicians in BiH use the Foucauldian concept of “power-knowledge” to achieve these ends. Michel Foucault argued that power and knowledge complement one another. Those with power create certain self-serving “truths”; because influential politicians are viewed as trustworthy, the public accepts these truths and thereby reinforces their existing power. The knowledge then becomes accepted and involved in a specific discourse about a particular body of knowledge. For example, Stuart Hall defines the discourse of “the West” and “the Rest” as the body of knowledge built to represent both entities and the often unequal relationship between them. The West would
see the rest of the world as a host of subjects, not as people with lives, histories, and cultures (Hall 2007). In this fashion, “power-knowledge” can often be used to create and sustain biases, prejudice, and inequality (Hall, 2007; Said, 1978).

In Bosnia, where the government exists to sustain the three primary ethnicities, it makes sense that ethnic prejudices have only grown worse. When society is separated into factions and politically represented on the basis of ethnicity, the discourse created by the powerful becomes embedded in the minds of the public. This discourse controls the entire economic, educational, and social structure of BiH. With segregated education system in place, politicians can breed generations of voters inculcated with nationalistic ideals (Tanovic 2013). Children throughout BiH learn in systems with three different dialects, histories, and geographies. In addition to dividing between ethnic groups, this system also has the harmful effect of excluding ethnic minority citizens, an often overlooked result of favoring the three largest ethnic groups (Tanovic 2013).

Education is not the only system in need of reform. At over forty percent, and around fifty-seven percent for youths, BiH has one of the worst unemployment rates in all of Europe (Mujanovic 2014). This leads to discrimination within the public sector. Privatization of large companies has caused workers to lose their jobs and sometimes receive little, if any, pension money. The shrinking middle class has also contributed to financial struggles as average citizens grow more frustrated with the growing incomes of politicians and army officials (Mujanovic 2014). Even politicians work within a very ineffective system. Set in their ethno-nationalist views, they almost always disagree on many matters of national policy. The European Union cut statewide funding in half due to the inability of politicians to make progress, resulting in budget cuts felt most strongly by lower class citizens (Gardner 2013).

**The “Bosnian Spring” and the Deconstruction of “Us versus Them”**

Bosnians finally began to speak out against loss and inequality during February of 2014 in what has become known as the “Bosnian Spring.” Economic instability sparked uprisings and protests in the cities of Tuzla, Zenica, Buhac, Mostar, and Sarajevo. Unsurprisingly, protesters blamed their segregated society, which has been strengthened by both the government and international institutions, for their economic struggles. The people began to realize “who their true enemy is: not other ethnic groups, but their own leaders who pretend to protect them from the others” (Žižek 2014). The citizens accused not only their leaders, but also blamed international forces such as the EU and the OHR for disregarding the interests and welfare of the republic. In BiH, with one non-holistic goal, international forces are using systems of punishment that are, indeed, affecting the country as a whole rather than a concentrated portion of the population (Žižek 2014). From the viewpoint of the protesters, the EU reinforces the shortcomings they withstand in their daily lives by focusing on the tenacious nationalist politicians rather than helping them reach a unified goal. The international community fails to recognize how its actions, which attempt to sway the politicians, only produce more instability and disruption within the public sphere (Žižek 2014). These biases and prejudices can be deconstructed just as they have been constructed by analyzing the concepts behind Edward Said’s Orientalism (1978) and Said’s response to Samuel Huntington’s “The Clash of Civilizations?” (2011).
Huntington's famous work “The Clash of Civilizations?” hypothesizes that throughout the world there will be large civilizations based upon language, culture, tradition, history, and religion, and argues that these entities will often be in disputes and exist separately from each other (2013). From Huntington's work, it can be inferred that the ethnic divides in BiH exist as a direct result of the differences in traditions and cultures between the ethnicities. If Huntington could predict the outcome of Bosnia, he would likely argue that the country would divide based on its ethnic differences and become separate nations. Edward Said, however, attempts to deconstruct and delegitimize Huntington's ideas through the arguments of “the other” discourse and Orientalism (1996).

Edward Said frames the topic of Orientalism as an inaccurate portrayal of the Orient that demonstrates the power relationship between the West and the East, particularly the way in which the West creates notions of the East as subordinate and subservient (1978). By creating the dichotomy of “us” versus “them,” the East automatically becomes a lesser entity. The East becomes homogeneous, distant, and dangerous. This is the natural order of dichotomous discourses and allows people to gain and perpetuate power (Hall 2007). Said argues against both the creation of this discourse and the very truths behind dichotomous categories.

In a 1996 lecture at the University of Massachusetts, Said discussed “The Myth of the ‘Clash of Civilizations’” by way of making three different points in opposition to the arguments in Huntington's essay (Said 1996). First, he argues that the primary opposition in Huntington's article between the West and the Islamic and Confucius States is a dichotomous category that perpetuates the faulty “notion that civilizations are monolithic and homogeneous” (Said 1996). In ignoring the fact that societies are made up of heterogeneous persons, Huntington also fails to consider that the two entities exist necessarily together and need not be antagonistic. Relations can change as new knowledge forms and as the understanding of the world proliferates. Said lastly considers that Huntington's Orientalist views are shaped by the core of Orientalism: the imperialist discourse of the “Occident” over the “Orient.” Said argues that with these views, Huntington may only be able to see the East in unceasing opposition to the West (Said 1996). Rather than viewing the societies as composed of heterogeneous, changeable peoples who fundamentally exist together, Huntington sees the world pessimistically. The discourse of “us versus them” creates these views and has kept alive the ethnic conflicts in BiH. However, as Said demonstrates, people are neither monolithic nor homogenous beings who exist only to oppose one another. Indeed, the citizens of BiH have differences such as ethnicity, religion, and history. However, what is not considered is the degree to which commonalities exist between its peoples.

David McDonald’s article “Carry Words Like Weapons: Hip-Hop and the Poetics of Palestinian Identities in Israel” discusses the concept of “relational history” (2010). This theory is seen in opposition with the “dual society model,” which describes how two ethnicities, like the Israelis and Palestinians of the occupied West Bank, can live together. Yet, they must still be seen as “internally unconflicted cultural formations, developing and maturing along separate and distinct historical trajectories within fields of meaning unique to each group” (McDonald 2010). This theory presupposes the total homogeneity within an ethnicity and complete dichotomy among a pair, no matter their geographical the significance of the moments of history in which the ethnicities live in peace and interdependence (McDonald 2010).
For example, rather than focusing solely on the devastating war and the remaining ethnic divide, relational history would emphasize the early Ottoman Empire and the formation of Yugoslavia when the ethnicities lived interconnected under one central system.

The differences that do exist do not create three completely different types of people. Though those within such ethnicities have differences in beliefs and have personal histories all their own, people of different ethnicities can still have a fair amount in common. This can be demonstrated by the simple fact that some Bosniaks and Croats still live in RS territories while many Serbs remain in Federation territories. Although society and the government have segregated the ethnicities both psychologically and in some cases physically, Bosnian people of all ethnic backgrounds share twenty years of collective turmoil, a common land, and a culture derived from their united history and nation.

**POPULAR CULTURE AND THE CREATION OF A NATIONAL IDENTITY**

Popular culture can be a powerful mechanism to help resolve the ethnic divide and gather people of all races, ethnicities, and religions to create a national identity for all citizens of BiH. In her book, *Pop Culture: The Culture of Everyday Life*, Shirley Fedorak demonstrates how popular culture can be used as a form of insurrection against the hegemony of higher institutions, represent collective ideals, and bring people together and create a shared identity. Fedorak specifically refers to the youth counter-culture movement of the 1960s as a catalyst for such unity and shared principles; societal values established during the movement such as environmental care, female empowerment, and minority rights still resonate in today’s culture (2009). The idea of a common identity has the power to ultimately produce societal and political change that reflects views representative of the population as a whole. Fedorak makes the compelling point that “popular culture can also eliminate or cross social barriers” (2009). This theory has profound implications for the future of BiH, as demonstrated by the advances that the country has already made with regard to its national football team.

After the Bosnian War, a national football team was organized much like the presidential systems set up at both the state and territorial levels. The triumvirate presidency of the nation’s football association (FA) cycled in order to achieve equal representation on the team. For many years, the International Federation of Football Associations (FIFA) tolerated this system because of the war. However, in April 2011, FIFA decided to suspend BiH’s team due to its ethnic presidential system. The FA worked quickly to resolve this issue, and only two months later FIFA withdrew the suspension (ESPN Soccer 2011). The FA now has only one president at a time, which may have contributed to the progress seen by the team in the years since the change in policy: BiH’s football team played in the 2014 World Cup for the first time in its history (Dedovic 2013). This achievement is especially impressive considering the ethnic diversity among the team’s players.

BiH’s football team consists of a multitude of ethnicities, including players from the diaspora of Bosnian citizens after the war. All ethnicities, including Serbs, Croats, and Bosniaks, have at least one representative player on the team. One Bosniak team member was born in Croatia, and another was raised in Canada (Dedovic 2013). Whether or not the men on this team had biases before, during, or even after joining, they set them aside in order to work together towards a common goal.

Citizens throughout the country eagerly watched as their beloved football team over-
came the ethnic divides which define BiH. Football has become an embedded part of Bosnia’s popular culture and a rare outlet of hope for many struggling citizens (Dedovic 2013). Not only can the people look to the team as an ideal for what society could be, they can also see it as a cultural device capable of bringing them together.

**Conclusions and Future Research**

The discourse of “us versus them” can be deconstructed, meaning that an optimistic, hopeful future exists for BiH. Rather than focusing on all that divides the ethnicities and all that unites them, it is also important to understand the many factors that break these assumptions, starting with points of commonality shared by all citizens. Popular culture, especially the game of football, can play a huge role in this journey of finding a common Bosnian identity, and may even change the system and way of life in Bosnia and Herzegovina.

Future ethnographic research should focus on the dynamics within and around the national football team. Research should also be devoted to other outlets of popular culture, especially those related to youth culture. In regards to the ethnic system, it would also be worthwhile to see how different demographics throughout BiH view the aspects of the ethnic divide and determine the influence of religion on this issue.

**Author’s Note:** This article was written in the Spring of 2014 while the author was a Freshman. She has since written a number of other articles on this subject.

**References**


About the Author

Sarah Biggs is a sophomore at Indiana University majoring in Anthropology, Psychology and Religious Studies. She was raised in South Bend, Indiana. More than anything, she wants to know and understand the world in which she lives. Next year, she plans to spend time abroad in places such as Turkey, Serbia, and Bosnia-Herzegovina, areas where she wishes to do field work as a Cultural Anthropologist. She hopes that one day she will be able to say that she did her part to help fellow citizens of the world.

Artwork - “Moldy Dreams” by Mimi Pinnow

Mimi Pinnow is a second semester BFA painting student from Greenwood, Indiana and is currently a senior at Indiana University with majors in Painting and Psychology as well as a minor in Spanish. Mimi has participated in three shows in Bloomington: In[FORM]ation on October 16, 2015 and Window Dressings on April 10, 2015 at the Fuller Project Studio as well as a Grunwald Gallery show on March 6, 2015. Her work typically is composed using various methods of paint application, which contribute to the integration of surreal atmospheres detailed with moments of realism. These spaces within Mimi’s paintings are locations where past and present environments are able to coexist.
“FRANNY AND ZOOEY” IN LIGHT OF NIETZSCHE

DANA KOGLIN
photo by REBECCA COLLINS
Man is hard to discover – hardest of all for himself;” this concept is seen throughout the works of Friedrich Nietzsche and J. D. Salinger (Nietzsche 1945a, 306). Overlaying Salinger’s “Franny and Zooey” with Nietzsche’s The Will to Power, Thus Spoke Zarathustra, and Twilight of the Idols highlights the wisdom within Salinger’s narrative, a convoluted story of intra- and interpersonal struggle. Salinger’s protagonist, Franny Glass, is a 20-year-old college student facing disenchantment with the world, or – as is pointed out by her 25-year-old brother Zooey – disenchantment with her perception of the world. The main textual foundation of my argument is a speech in Nietzsche’s Thus Spoke Zarathustra, narrated by the titular hermit, who is believed to be the fictional voice of Nietzsche. The first of Zarathustra’s speeches, “On the Three Metamorphoses,” describes the path a person must take to get to the “overman,” what Nietzsche alludes to as an individual’s peace with the world exactly as it is (Nietzsche 1954a, 132). “On the Three Metamorphoses” offers an explanation of the three stages each individual’s consciousness must go through: the camel, lion, and child (Nietzsche 1954a, 137). These metamorphoses provide a definable structure for Franny’s and Zooey’s spiritual evolution, highlighting the fact that although Franny and Zooey do not reach the end of their evolution within Salinger’s novel, their adherence to Nietzsche’s model makes realizing the overman thinkable. The metaphorical speed bump that both Franny and Zooey hit is Nietzsche’s theory of the will to ignorance.

Though Nietzsche outlines three metamorphoses, the process is much more diverse. Before an individual or spirit enters the first stage of the metamorphoses, it must desire to be burdened with difficulty. According to Nietzsche, a person must desire a challenge for the sake of pushing the boundaries of his or her own ability because “the difficult and the most difficult are what its [the spirit’s] strength demands” (Nietzsche 1954a, 137). Desiring difficulty, a strong spirit “kneels down like a camel wanting to be well loaded,” and “loads too many alien and grave words and values on himself” to enter the camel stage (Nietzsche 1954a, 138; 305). Throughout their childhood, both Franny and Zooey were educated by their two eldest brothers, Buddy and Seymour, on philosophies such as those from the Upanishads, Diamond, Sutra and Eckhart
(Salinger 1955, 60). From a young age, they were “well loaded” with knowledge and values whether they liked it or not, and, eventually, they internalized this process, desiring the burden of knowledge and the challenge of discovering truth. According to Zooey, this supplementary education gave them “freakish standards” that even they had trouble meeting (Salinger 1955, 139). Instead of desiring the easy or common goals in life, such as “money or prestige or fame,” their knowledge led them to desire “enlightenment or peace” (Salinger 1955, 149). This left both Franny and Zooey well burdened, their knowledge requiring that they force themselves and others to meet these “freakish standards” (Salinger 1955, 139). As adults their education required them to seek the answers posed by it, placing them well into Nietzsche’s camel stage.

Though it is clear that both Franny and Zooey are at least in Nietzsche’s camel stage, their progression beyond this point is difficult to discern. In order to enter the second stage, a spirit must become a “lion who would conquer his freedom and be master in his own desert. Here he seeks out his last master: he wants to fight him and his last god; for ultimate victory he wants to fight with the great dragon” (Nietzsche 1954a, 138). The dragon in this parable is a god, but not any god in particular; the dragon is just the “last” one, as if in a long line of gods to be overcome. To enter the metamorphosis of the lion, the spirit must desire to “conquer his freedom and become master” by defeating the dragon (Nietzsche 1954a, 138). To conquer the dragon, the spirit must defy the dragon’s name, “thou shalt,” by responding, “I will” (Nietzsche 1954a, 138). This makes the spirit his own master, specifically through the reevaluation of all value. The dragon is the final definition on all that is valued and all that is not; specifically, it defines what is good and what is evil (Nietzsche 1954a, 139; 305). The lion’s job is to instigate an environment for himself in which the creation of new values is possible – to create a space in which the spirit can say, “This is my good and evil” (Nietzsche 1954a, 139; 305). The lion must create a space of freedom, not by replacing the dragon, but by conquering him. This is important because only the third-stage spirit, the child, can actually create new values. The lion only creates the freedom in which the child can create new values.

It is important here to understand the lion stage as broken up into two sub-stages, the first being the spirit’s desire to conquer the dragon and the second being the actual conquering of the dragon. This is a subdivision Nietzsche’s writings support, and it is useful in understanding the complexities of Franny’s and Zooey’s spiritual evolution. It seems that Franny has entered the lion stage because she desires the freedom of the lion, but she continues no further. Franny is disenchanted with “thou shalt.” She mimics the desires of the lion, described by Nietzsche as “hungry, violent, lonely, godless … Free from the happiness of slaves” (Nietzsche 1954a, 215). Slaves, in this case, are people who are “horribly conditioned to accept everybody else’s values” (Salinger 1955, 30). Franny admits she is a “slave” in this sense, but she cannot glean a slave’s happiness from life as most “slaves” can.

Society conditioned Franny to value ambition but reject ego, which is evident when she calls any person with a large ego a “nasty little egomaniac” (Salinger 1955, 28). At some point, Franny found ambition and ego to be inextricably linked and was unable to reconcile their seemingly separate positive and negative qualities. As a result, she lumps ambition in with the apparent depravity of ego, which leaves her with nothing to do but reject ambition in herself and everyone around her. An example of this is when Franny criticizes
peoples’ yearning “to get somewhere, do something distinguished and all, be somebody interesting” (Salinger 1955, 29). Revealing that she, too, is ambitious but rejects this in herself, Franny tells Zooey that she’s “sick of not having the courage to be an absolute nobody” (Salinger 1955, 30). Franny finds ego and the compelling desire to feed it disgusting and devaluing of herself. As sufficiently burdened by ego’s value, and isolated from the desires of those conditioned to accept it, Franny is in the camel’s “loneliest desert” and is poised to conquer her freedom as the lion (Nietzsche 1954a, 138). Franny even expresses her desire for “an absolutely new conception of what everything’s about,” which is akin to the realization of Nietzsche’s overman, but Franny has not yet found a way to achieve it (Salinger 1955, 37). Since Nietzsche describes the entering of the lion stage as a spirit who “would conquer his freedom,” and not a spirit who has already done so, Franny seems to fit this first sub stage of the lion perfectly (Nietzsche 1954a, 138).

Zooey, also burdened by his early education, is at the very least poised for the lion’s conquering of the dragon. He seems to be at a better state mentally than Franny but is still facing, ultimately, the same predicament of not fitting in with the world of ego. In a conversation with their mother, Zooey claims, “the symptoms are a little more delayed in Franny’s case than in mine, but she’s a freak too,” which implies that Franny is just a few paces behind Zooey in her spiritual evolution (Salinger 1955, 103). This makes sense because Zooey does all the real theorizing in the novel. Franny is rather passive when it comes to the progression of ideas. Her contributions tend to confirm her inability to reconcile her futile thought process, while Zooey’s demonstrate a form of progression. At most, Franny accepts Zooey’s theory, but only as a “thou shalt” over and above her, external to her control of will. But, like Franny, Zooey has not yet conquered the dragon in Nietzsche’s lion stage. This is revealed when Zooey provides Franny with an alternate view of reality, which is meant to allow her to tolerate ambition and ego in herself and others and thus go on living. Zooey does not conquer the dragon – Christianity, in this case; when he reinterprets reality for Franny, he does not complete the lion stage. For Zooey to have conquered Christianity, he would have had to recognize God and his wisdom as false, and consequently pick and choose his own rules and values to follow based on some other evaluation of “rightness” that he himself defines.

Stuck in her indecision and disillusionment, Franny comes across two books, The Way of a Pilgrim and The Pilgrim Continues His Way, which contain the story of a pilgrim who learns how to pray incessantly as the Bible instructs (Salinger 1955, 33). According to the book, praying incessantly with the Jesus Prayer will lead the subject into the “so-called reality of things” (Salinger 1955, 113). Franny attempts to mimic the theory but is not able to attain her goal, which results in her mental breakdown. Zooey attempts to bring Franny out of her collapse by providing her with a better, though not wholly different, model within which to understand the world. Recognizing that Franny’s problem is that she judges both herself and others so harshly that she cannot find any value in them, Zooey attacks the fundamentals of her logic with the very Christian ideals she is, ironically, tightly clinging to in her anxiety. Zooey shows her that she cannot allow herself to come to conclusions on the value of people because “it would take Christ himself to decide what’s ego and what isn’t” (Salinger 1955, 167). Zooey tells her that she must let go of her authority to judge others because she doesn’t have the required faculties to do so.

This alternate view of Zooey’s is not the
lion's overcoming of “thou shalt” with “I will” because neither Zooey nor Franny (in her apparent adoption of Zooey’s ideology) stray from established value. It is still Christianity – established value – that is giving orders, or “thou shalt.” Franny and Zooey only refocus their understanding of people within the established values instead of throwing them off and creating their own. Zooey’s assertions that “this is God’s universe…not yours” and that “He has the final say” put all the power of creation on God; exactly where Christianity thinks it should be (Salinger 1955, 167). This understanding within Christianity allows for no individual the power to judge – no power of will – and the placing of God at the head of all decision on value nearly mirrors the finality of Nietzsche’s dragon:

“Thou shalt” lies in his [lion's] way, sparkling like gold, an animal covered with scales; and on every scale shines a golden “thou shalt.”

Values, thousands of years old, shine on these scales; and thus speaks the mightiest of all dragons: “All value of all things shines on me. All value has long been created, and I am all created value. Verily, there shall be no more “I will.”

(Nietzsche 1954a, 138)

Zooey’s placement of power with God is not an “I will.” It is a closer alignment with the intended directives of Christianity’s “thou shalt;” “thou shalt” see God as all knowing and yourself as inferior. Zooey must have first overcome the Christian god, akin to Nietzsche’s dragon, to have passed through the lion stage. This leaves Zooey, and Franny by default, still poised to conquer the dragon, but not having done so.

Assuming Nietzsche’s three metamorphoses to be a strictly linear theory, this snag in their spiritual progression seems to leave Franny and Zooey unable to continue within Nietzsche’s theory. But outside Nietzsche’s immediate explanation of the path to the overman within “On the Three Metamorphoses,” he alludes to an alternative route in his expanded texts – The Will to Power and Twilight of the Idols – one supplementary to the three metamorphoses, not opposed to them. This alternative is essential to the spirit that has reached the lion stage but without the key element to complete it. The alternative path aids the spirit in gaining this element, which Nietzsche calls the will to ignorance. On this supplementary path, a spirit makes rudimentary use of the child stage-like mental exercises before overcoming the dragon, but the exercise of these qualities aids the spirit in recognizing its need for the will to ignorance. This process can be understood as a sort of sideways progression, because eventually the spirit will have to return to “forward” movement to overcome the dragon and complete Nietzsche’s three metamorphoses. If the spirit attempts to progress without the will to ignorance, it takes this roundabout path, which Zooey, in light of Nietzsche elaboration in The Will to Power and Twilight of the Idols, appears to be following. The key to conquering the lion stage is also the key to the spirit’s success in the child stage, which is why a spirit cannot properly progress without it. This key is the will to ignorance, to knowingly “deceive oneself in a useful way” (Nietzsche 1967, sec. 584). The will to ignorance is founded on Nietzsche’s assertion that truth is unknowable: 1 “One would require a position outside of life, and yet have to know it as well as one, as many, as all who have lived it, in order to be permitted even

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1 From here on, I will use the terms “perceptual,” “perceived” or “false” truth for an idea that functions successfully in our understanding of reality, typically something most believe to be truth (example: gravity); and “truth” for reality, which we cannot know.
to touch the problem of the value of life” (Nietzsche 1954b, 490). In order to judge the accuracy of any one thing in relation to all things, you must first have knowledge of all things, which we do not have (Nietzsche 1967, sec. 473). Most would recognize this fact and then find no reason to continue to live in light of it.2 But Nietzsche asserts that what is most valuable in life is not truth, but “that something must be held to be true” (Nietzsche 1967, 507). Facts of life have no value outside of their ability to further life. So all that a spirit should desire is that a perceived truth be of enough “relative rightness” in accordance with truth, that it can function “perfectly” in our perception (Nietzsche 1967, sec. 480; 507). Our “conception of reality must comprehend enough of the calculable and constant for it to base a scheme of behavior on it,” and we must desire to have no more than this because we can have no more and need no more3 (Nietzsche 1967, sec. 480).

There is nothing wrong with going about our lives according to our false truths because they serve a vital purpose for intelligent life, and because of their conditional value to us, we must desire to create them while knowing what they are. As Nietzsche states, “It is not enough that you understand in what ignorance man and beast live; you must also have and acquire the will to ignorance. You need to grasp that without this kind of ignorance life itself would be impossible” (Nietzsche 1967, sec. 609). The accrual of the will to ignorance, which is not just the acting according to Nietzsche’s theory (which is what Zooey is doing in the novel) but the consciousness of and the will to action, leads the spirit through the lion to the child.

It is this will to ignorance that both Franny and Zooey are missing, which contributes to their inability to conquer the dragon. It makes sense, then, that Franny and Zooey could not have conquered their dragons and moved on to the child stage when they have not yet realized that the dragon comprises no truth – only perceived truth, which contains no value in and of itself. Because why would you ever want to defy the real world (the dragon) to live in a false world (“I wills”) if your goal was total understanding? So the dragon must encompass no real truth. You would only desire the false world if you understood that you could never understand the true world, which makes valuing the false world necessary for survival. The point of the lion is to desire to be your own master, but it is predicated on your understanding that you don’t actually have a supreme master. You only allow people and ideas to act as your master when you live your life according to “thou shalt.” They have no unqualified mastery over you. The spirit must grasp this if it is to ever overcome the dragon. The spirit must see no absolutes in the dragon and then overcome it. So the spirit can continually create and destroy its own perceptive truths, aware that there is no “truth” in any of the ideas it treats as such. So fundamental to the spirit’s success in the three metamorphoses, is the spirit’s knowledge that truth is unknowable and its consequential accrual of the will to ignorance.

But, it is possible to begin to acquire

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2 Though it appears as if this negates the entire reality of life – and Nietzsche’s assertion that we cannot know truth, with it – it actually doesn’t, according to Nietzsche. I will attempt to summarize his explanation, but it is important to mention that Nietzsche himself acknowledges the problem his theory poses to logic. “In that way I facilitate comprehension; in that way I provoke contradiction” (Nietzsche 1954b, 484).

3 A summary in all its contradictory glory: you must accept the unknowable truth that truth is beyond comprehension. You must then accept the conditional truth (which is within our comprehension) that our false perception of reality is valuable to our survival (but not in-and-of-itself, as a supreme value).
attributes of the child stage without first conquering the lion stage. This is not the ideal, but it is a round-about way to the overman. This alternative occurs because a spirit does not need the will to ignorance to enter the lion stage, but it needs it to move from it. And one way to gain the will to ignorance when in this position is through trial and error – mimicking the child. Those unacquainted with the will to ignorance do not view child-stage creation as the replacement of one false truth for another false truth, though this is exactly what it is. Instead, they view this creation as the replacement of a once-truth, now discovered to be false, with a newly discovered “true” truth. The distinction is in the consciousness of the action, of which Zooey has the action but not the consciousness.

After Zooey explains to Franny that, according to Christianity, it is not her place to be the judge of others, he creates for her a new way to view people. Referencing their eldest brother, Seymour, Zooey says, “all legitimate religious study must lead to unlearning the differences, the illusory differences, between boys and girls, animals and stones, day and night, heat and cold” (Salinger 1955, 68). And one specific illusionary difference, according to Zooey, is the difference between Christ and all other people. Having established a deep respect for the Christian God, Zooey then projects this feeling onto all others. Having established a deep respect for the Christian God, Zooey then projects this feeling onto all others. Zooey discounts the illusion of difference and replaces it with an illusion of equivalence, to free Franny from her life-stalling mentality. Though Zooey created for Franny, it is important to note that Franny did not create. She, at most, accepts Zooey’s theory as a “thou shalt” from God. While Zooey is continuing on this “sideways” path of Nietzsche’s, Franny is standing still as the lion before the dragon. The only thing keeping Zooey from being a perfect example under Nietzsche is his lack of the will to ignorance, but his creation is exactly what Nietzsche’s theory endorses.

Franny’s problem is that she was conditioned to use values that were destructive to her sense of self. When Franny’s perception begins to fail her, Zooey offers her another one, no more true than her own, but better functioning in the “relative rightness” of things and more attuned to her needs (Nietzsche 1967, sec. 480). These perceptual truths are “a falsehood always changing but never getting near the truth,” but there is no error in this because truth is not the goal; survival is (Nietzsche 1967, sec. 616). And when survival is the goal, anything of a “relative rightness” that furthers its employer’s life is good. Zooey’s tactic to continue living with his and Franny’s mental paradox was to understand a higher being as the only one capable of judgment. Emulating Nietzsche’s idea that we cannot know truth and should accept that fact, Zooey redefined value as only knowable by a “god” in order to save himself (and presumably, Franny) from the inevitable confusion and pain of trying to judge for him/herself. Zooey accepted what he could not know, abdicated the task of trying to know it, and assigned the task to someone who would never enlighten him—solving the problem and putting it well out of his and Franny’s reach. For added security, Zooey then used Seymour, someone trusted by both him and Franny, to remove all distinctions between people and Christ, allowing them to attribute some semblance of value to all beings.

This mimics the creation of the child because neither their original nor their later belief is true. But his action only mimics child-stage creation because Zooey does not recognize the falsity in these convictions nor does he desire it. There is no evidence that either Franny or Zooey viewed their trade as one falsity for another. They believe they have discovered a new truth.

Nonetheless, this creation is to Franny’s and Zooey’s spiritual benefit simply because
it is to their physical benefit. It is an example of Zooey’s alternative/sideways progression in which he is more likely to recognize the inability of humans to comprehend truth. And he is keeping himself alive, which is necessary if he is ever to reach the overman. Without something else to believe, Franny is stuck in destructive thinking. She would have likely gone down the same path as her eldest brother, Seymour, who killed himself almost seven years before Salinger’s novel begins. And Seymour, notably, earned his Ph.D. as a teenager, which makes him as sufficiently – if not more – burdened as both Franny and Zooey (Salinger 1955, 58). But Seymour killed himself instead of pursuing the child stage to its end. Though it is unknown if he had the will to ignorance or completed the lion stage, his example still serves the purpose of detailing the alternative to accepting false truths for Franny and Zooey. Nietzsche’s supplementary path provides an escape from this alternative.

Zooey’s creation is not an example of the ideal in Nietzsche’s theory, but it facilitates life in those who have not yet gained the will to ignorance or completed the lion stage, his example still serves the purpose of detailing the alternative to accepting false truths for Franny and Zooey. Nietzsche’s supplementary path provides an escape from this alternative.

Zooey’s creation is not an example of the ideal in Nietzsche’s theory, but it facilitates life in those who have not yet gained the will to ignorance. It is the great inspirer of doubt and devaluator in respect of the world we are: it has been our most dangerous attempt yet to assassinate life” (Nietzsche 1967, sec. 583B). We do not need truth to survive and thrive. Truth can only instill doubt, as it did for Seymour.

Once having abolished truth and acquired the will to ignorance, Franny and Zooey should become totally like Nietzsche’s spirit in the child stage. The spirit as the child is the only one of the three stages that can actually create value. By necessity, for a new creation to reign truly, the old must be destroyed, and the child is the only one with the power to withstand the destruction that must precede creation (Nietzsche 1954a, 139). The key to tolerating this destruction is to enjoy it and/or be innocent of the loss. The child’s “suffering is willed, transfigured, deified where suffering is a form of great delight” (Nietzsche 1967, sec. 853II). The child can tolerate suffering because it is “forgetting, a new beginning, a game” (Nietzsche 1954a, 139). In order to come to terms with the destruction of something the spirit once valued, so that it can create something new to value – and to do it continually – the spirit must become like a child and rid itself of the gravity of what it is doing.

If Seymour is an example for Franny and Zooey of what not to do, the next eldest sibling, Buddy, seems to be the example of what to do. In a letter to Zooey, Buddy recalls the day he went to retrieve Seymour’s body. While sobbing on the plane, Buddy overheard another passenger talking of a woman who had had “a pint of pus” taken out of “that lovely young body of hers” (Salinger 1955, 62). Buddy, overwhelmed with emotion, could not help but smile at this. His new emotion carried him through the rest of the day, and it is still one of the first things to come to mind.
when he thinks of Seymour’s death (Salinger 1955, 62):

Against my better judgment, I feel certain somewhere very near here – the first house down the road, maybe – there’s a good poet dying, but also somewhere very near here somebody’s having a hilarious pint of pus taken from her lovely young body, and I can’t be running back and forth forever between grief and high delight. (Salinger 1955, 62)

This is an example of the mental state of a child-stage spirit, “where all time seemed to me a happy mockery of moments” (Nietzsche 1954a, 309). However, the likelihood of Buddy mirroring Nietzsche’s metamorphoses step by step in unlikely. But he has acquired attributes of the child stage. It is possible that Buddy also has not overcome the dragon since he is mentioned in Salinger’s text briefly and in no real detail, but he still serves as an example, alongside Seymour, for Franny and Zooey. He increases Franny’s and Zooey’s chances of discovering that “neither Manu nor Plato nor Confucius nor the Jewish and Christian teachers have ever doubted their right to lie,” and that they shouldn’t either (Nietzsche 1954b, 505).

**Bibliography**


About the Author

Dana Koglin is a senior studying journalism with specializations in public relations and advertising. She has a minor in mathematics and an outside concentration in religious studies. She has spent her time at IU volunteering for a variety of animal-centered organizations, including Wild Care Inc. and the Brown County Humane Society, and is an active member of Alpha Sigma Alpha Sorority. She hopes to begin fall 2015 at Northwestern University in Medill’s integrated marketing communications graduate program.

Artwork - “Mountain Plover” by Rebecca Collins
THE PERFORMANCE OF FLUIDITY:
Viola’s Existence in Twelfth Night and its Relation to Gender and Sexuality

WILLIAM (PAYNE) BANISTER

artwork by MIMI PINNOW
Gender is a performance art in which one’s gender performance can provoke another to question gender. William Shakespeare’s *Twelfth Night* also has this effect by making the audience rethink gender and sexuality. Shakespeare achieves this through the character Viola, who dresses as a man in order to get close to the Duke Orsino. At the time of the original production, Viola would have been played by a man. Watching a man play a woman who plays as a man destabilizes the audience’s black-and-white notion of gender, and as a result reshapes our understanding of gender identity as something fluid. Viola’s presence serves two functions for the audience, as an example of gender performance and an illustration of a possible lesbian relationship.

One of the main themes of *Twelfth Night* is Viola’s gender presentation and its fluidity within the play. Gender fluidity is the idea that one can change his or her gender presentation; thus, a man can present himself as a woman, or in Viola’s case, a woman as a man. This change in gender roles creates a gender presentation that is neither wholly male nor female. In the play, Viola exhibits a fluid gender presentation, as she assumes the identity of a man, calling herself Cesario in order to get closer to the duke.\(^1\) However, as the play develops, Cesario’s presence causes confusion among other characters and introduces a possible lesbian relationship between Viola and Olivia. Cesario is sent to woo Olivia for the duke, as Olivia is the object of the duke’s affections. But instead of being wooed by the duke’s messages, Olivia falls in love with Cesario. This relationship is further complicated when Sebastian, Viola’s twin brother, arrives in the last few scenes of the play. Since Cesario and Sebastian look very similar, Olivia instantly mistakes the two siblings and coerces Sebastian into marrying her. Viola’s choice to present as a man and assume a dress and name creates this confusion and further complicates her relationships with the duke, Olivia, and her brother.

Although the fluidity of gender presentation in the play causes confusion, it influences the audience’s reactions and their understanding of gender. Casey Charles, in his article “Gender Trouble in *Twelfth Night,*” addresses the role gender plays and the reaction of modern and Elizabethan audiences to Viola’s cross-dressing:

\(^1\) Viola’s actions while assuming the role of Cesario will be referred to as Cesario’s actions.
The larger debate over whether cultural representation has the capacity to subvert and influence social reality or is usually contained by a political matrix that limits its power is not only raging today over questions of pornography and violence on television, but is important for purposes of Gender Trouble and Twelfth Night because both Butler and Shakespeare rely upon performance as a theoretical means of shaking the foundations of the metaphysics of binarism and gender hierarchy. (Charles 6)

Charles argues that Shakespeare’s work uses performance to force audience members to question the gender binary and what it means to be a man or woman. By creating a character that shifts her gender presentation from female to male, Shakespeare also disrupts the rigid structure of gender hierarchy. Since most of Western culture is patriarchal, a woman placing herself in a position in which she can access privilege and escape her minority status threatens the idea that men are at the top of the hierarchy. Much of our understanding of gender rests on the idea that one is born a woman and stays a woman, and the same can be said for a man. However, Viola’s being and actions introduce a new category, one that provides an early depiction of cross-dressing or even a transgender identity.

The Viola that Shakespeare presents in his text does not simply cause confusion within the play; her actions affect the ways in which the audience understands gender performance. This effect is enhanced when the actor playing the part of Viola is a man. When done in this fashion, the play comments not only on gender, but also on sexuality. Such an effect is discussed in Warren S. Poland’s essay “Polymorphously Normal Sexuality.” Poland notes that when he watched a production of Twelfth Night in which a male actor played Viola, “[t]he effect led the clinician to think anew about individual sexuality” (Poland 481). Poland’s essay reveals how his own ideas of sexuality and gender changed due to the performance. In reference to Viola’s portrayal, Poland states, “a male playing a female character on the stage could be appreciated as being male, as being female, as being mixed male and female, and as personifying the lightness of sexual excitement unweighted by gender” (482). Poland’s statement illustrates the complexity associated with gender and sexuality when a male actor assumes a female role. A male portraying a female character allows the audience to understand the actor as not only man and woman, but as a possible mixture of both gender identities.

This performance affects how one looks at sexuality as well. Concerning Viola’s relationship with the duke, having two men portray a romantic relationship implies a homoerotic love affair in terms of the actor’s bodies, although Viola’s love for the duke is viewed as heterosexual in the play. Lesley Ferris addresses this directing choice in the introductory chapter of Crossing the Stage: Controversies on Cross-Dressing by citing Neil Bartlett’s production of Twelfth Night. In Bartlett’s production, he cast males for the parts of Viola and Sebastian, while women played the rest of the characters. Bartlett explains his reasoning for this casting choice:

If you did Twelfth Night as it was written, as an all-male production, it would be the “gay” Twelfth Night even before it opened…. The piece would be about whether the characters in the play are really homosexual and it would be about whether gay love is as good as straight love. And quite frankly, these are questions which are behind us. (Ferris 1)
Bartlett’s choice of casting acknowledges the implications associated with gender and sexuality. As opposed to a traditional, all-male cast, Bartlett’s choice of casting results in heterosexual pairings of the major characters in regard to the genders of both the characters and the actors.

Bartlett’s fears of how modern audiences may receive the play if he adhered to all-male casting choices may be due to the evolution of modern theatre, in which society is familiar with women actors. In modern theatre, women characters are typically played by female actors; thus introducing a male body playing a female character would elicit a different response from today’s audiences than from Elizabethan audiences. Nancy Lindheim argues:

Emphasizing the particular moments when spectators see the boy beneath the female character, though it promotes exciting or arresting criticism, distorts the audience’s dominant experience of the play, which, as is generally agreed, accepts women characters as female. The strength of such a conventional response is shown by the parallel mechanism of disguise in Shakespeare’s theatre: spectators accept the surface reality of his actors just as characters onstage accept the surface identity of figures who are disguised, however flimsy the disguise and however probable that in ‘real life’ they would not be fooled. (Lindheim 695)

Lindheim’s argument that Elizabethan audiences would have accepted the characters as being women rather than men in dresses demonstrates the cultural differences between a Shakespearean audience and a modern audience. This is also a comment on the ways in which audiences today understand gender and how we are keen on identifying one’s gender based on our own understanding of certain gender markers (defined jawlines as a masculine gender marker and curvy bodies as a feminine marker). Based on Lindheim’s argument, if a man with a defined jawline played the role of Juliet or Viola during Elizabethan times, the audience would accept the body as a whole as being female. The same suspension of disbelief would not occur within today’s audience. If we placed the same man in the same role today, we would note that it was a man in a dress playing the role of a woman. This concept becomes highly important during casting decisions, as the director must take into account how society associates gender in this way.

Viola’s actions not only serve as an example of gender fluidity, but also as a lesbian relationship with Olivia. When examining the relationship between Viola and Olivia, a possible same-sex relationship emerges due to Viola’s female gender identity. This relationship is complicated because Olivia falls in love with Cesario, who she believes is a man. However, due to Viola’s gender, the play adopts a lesbian narrative. Although for the majority of the play Viola presents herself as Cesario, she retains her female identity, as revealed in the last act of the play. Furthermore, if Viola is played by a woman, this effect is amplified as the audience is watching two characters who are biologically women participating in a relationship that can be read as homosexual. In addition to the genders of the performers and characters as modes of portraying a lesbian relationship, language serves as a means of achieving this effect.

Jami Ake presents this argument in her article “Glimpsing a ‘Lesbian’ Poetics in Twelfth Night,” in which she examines why Olivia seems to react to Cesario’s words more
strongly than she does to the words the duke sends to her. The Duke initially plans for Cesario to recite poetry the Duke himself wrote – hoping that through Cesario he can draw the affections of Olivia. However, Olivia finds herself more taken by Cesario’s own words, the way in which he talks to her on an interpersonal level to be far more wooing than any of the Duke’s poetry. Ake notes: “Olivia does seem, at first initially, to find Cesario/Viola’s youthful, feminine demeanor intriguing, but their interview reveals the extent to which Olivia’s desire for Cesario/Viola emerges not from similarity (in speech or conduct), but precisely from the differences s/he embodies and the poetic alternatives s/he offers” (Ake 383). While Ake acknowledges that Olivia’s desire for Viola does involve physical attraction, the language that comes from Viola is the ultimate attracting feature. The idea that Cesario’s language is what woos her illustrates the lesbian undertones of the relationship. Since Cesario’s words are actually those of Viola, the effect they have on Olivia suggests women know how to use language to appeal to the hearts of other women, whereas men fail to woo women with fancy speeches and grandiose expressions. Ake echoes this argument and also states that this event allows the women to “begin to escape the traps of male discourses and to articulate their own desires in a language that (unlike the duke’s verse) requires actual bodies for employment” (Ake 383). Ake’s statement implies that the interpersonal connection achieved by the two women is the factor that attracts Olivia. She is not attracted to the verse presented to her, because it is not spoken by the person who penned it. In Act I, Scene v, Olivia responds to Cesario’s presentation of the duke’s poetry, saying “It is the more like to be feigned: I pray you / keep it in” (Shakespeare, I.v.194-195). Not interested in poetry, Olivia tells Cesario why she let him into her home: “I heard you were saucy at my gates, / and allowed your approach, rather to wonder at you / than to hear you” (Shakespeare, I.v.195-197).

Viola’s participation in a lesbian–like relationship and her gender presentation raise many questions concerning gender and sexual fluidity and destabilize the common understanding of the gender binary. By presenting herself as both male and female, Viola occupies a gender in which she can embody both. It is important to view Viola as a vehicle of gender and sexual ambiguity, providing readers and spectators with altered understandings of these topics. This exemplifies the fact that gender is not black and white, but ambiguous and fluid.

**Bibliography**


*About the Author*

William (Payne) Banister is a Spring 2015 graduate of Indiana University where he received his B.A. in Theatre/Drama (Concentrating in Dramatic Theory and Criticism) and minored in Gender Studies. Payne intends to pursue his MA and PhD in Gender Studies or Performance Theory. His primary research interests are drag performance, performance ethnography, and alternative performance styles.

*Artwork - “Orange Coffee Time” by Mimi Pinnow*