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College Majors and Unemployment Rates

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I. INTRODUCTION

For a college student, selecting a Baccalaureate major is one of the most influential choices of his/her career. However, many students are not provided with recent and accurate sources that may influence their decision. Professors, family, and media delude students by stereotyping certain majors, such as anthropology, as "useless" or "unemployable", political science as "oversaturated", and STEM majors as more dependable. These stigmas affect not only current, undecided college students but every student that may be misinformed regarding the relationships between majors and their unemployment rates. To solve this dilemma, this research paper will present both the federal and state unemployment rates for all majors, along with explanations for sharp unemployment rate increases or decreases. The research presented will be essential to the modern-day workforce as more and more people are having the opportunities to attend college; according to the U.S. Census, 36% of people aged 25 or older obtained a Bachelor's Degree, an almost 10% jump from 2010 (Census). Therefore, this research provides ample assistance for students who are deciding their major and inferring which industries might be high-growth.

The significance of this research lies in the ever-changing job force, emerging fields, redefined importance of certain careers, and variability in unemployment based on state. Certain events, such as the 2008 recession, affect the unemployment rates of certain majors. According to "Not All College Degrees Are Created Equal", architecture majors faced a 13.9% unemployment rate in 2010 due to the "collapse of construction and home building industry in the recession" (Carnevale et al). If students considering an architecture major were exposed to this information, they might have chosen another major. Emerging fields are also a critical factor in college major unemployment rates; fields such as artificial intelligence may lower the unemployment rates of mechanical engineering and cybersecurity. The electric vehicle industry,

which experienced a growth of 43% in 2019 (International Energy Agency), may create demand for a hybrid technology major.

A surge in political protests and exposure to police brutality has redefined the importance of criminal justice and sociology; the previous year has demonstrated a need for both policy change and social reform with respect to criminal justice. Cases such as those of Sandra Bland, Eric Garner, and Trayvon Martin have influenced discussions about the relationship between race and power in the United States. The importance of jobs that concentrate on racial and power struggles is shown to be correlated by the decrease in overall social science unemployment rates from 3.3% in 2014 to 2.2% in 2019 (Integrated Public Use Microdata Series). In addition, the low unemployment rate may also indicate the onboarding of professional development and diversity workshops by education institutions. We expect unemployment rates for social science majors to steadily decrease from 2009 to 2019.

Considering employment on a state-by-state basis is important for college students; their decisions are dependent on the varying job forces of states. Climate and geographical location play a role in the demand for certain majors; living in Central Middle America provides more opportunities for farmers and other workers in agricultural services than if they were living in Maine, where crops are negatively affected by weather conditions.

II.   LITERATURE REVIEW

A paper on this topic was published by Georgetown University by Anthony Carnevale, Ban Cheah, and Jeff Strohl; this work discusses the unemployment rates of various college majors, including other factors that influence employment in certain fields, such as post-graduate degrees, experience, and even general sections of a bachelor's degree (such as social science). The research has shown that the highest unemployment rate in 2010 was 13.9% for architecture

majors; the authors attribute this to the "collapse of the construction and home building industry in the recession" (Carnevale et al). Education and health had the lowest unemployment rates out of all the majors, at around 5.4%. The research has shown that the arts tend to have a lower unemployment rate than their STEM counterparts, such as business majors. This research paper will address the gap in time from 2010 to create an update across all majors up until 2019 and will include the federal unemployment rate as a basis of comparison.

Another notable and more recent piece is *The Condition of Education, 2020 Edition*, a work created by the National Center for Education Studies. This paper compares unemployment rates per major and salaries from 2010 to 2018. Interestingly, this paper claims that the major computer and information sciences have had the same unemployment rate in 2010 and 2018: 5.6%. This research has also shown that the most employable majors include education (both general and elementary), nursing, and electrical engineering, while the least employed include computer science, interdisciplinary studies, liberal arts and humanities, and english. However, this paper is missing a state-by-state analysis and recent data from 2019.

A third source for the unemployment rates characterized by majors includes *"The Labor Market for Recent College Graduates"*, which lists the unemployment rate, underemployment rate, median wage in the early stage of the related career, median wage in the middle stage of the related career, and how many of these college major graduates have a graduate degree by percentage. Though this source had the most majors listed (the overall education major was broken into general education, early childhood education, elementary education, secondary education, special education, and miscellaneous education), it only accounted for the years 2018-2019. Furthermore, not all of the majors listed have data going back to 2009; therefore, we will only select the general major names (such as just education) to get an overview.

The trends shown in the aforementioned papers depict higher unemployment rates in the non-STEM sect. However, the papers place computer and information science at different levels in the rank of unemployment; while the first paper mentioned computer and information science among majors with the lowest unemployment rates for majors, the second paper has it as the highest. Certain national and global events could have shifted the unemployment rates for these groups; for example, the resurgence in social activism, such as the Black Lives Matter movement may have decreased the unemployment rate in sociology and/or anthropology. The shift into remote work and school may have decreased the unemployment rate of computer and information science graduates. Therefore, this research paper will not only address the gap in majors and time. Lastly, this research paper will differentiate the unemployment rates by location; it will include data of a hub like New York in comparison to other states, such as California and Texas. The difference in location is important for students determining their college majors as the employment opportunities will be vastly different and have completely different in-demand jobs. An MLA format will be used throughout this paper.

III.   **RESEARCH DESIGN AND METHODS**

The research presented in this paper will primarily use qualitative data. Data will be compiled from presumed accurate and unbiased sources, such as the American Community Survey (ACS), Federal Reserve Economic Data (FRED), and Integrated Public Use Microdata Series (IPUMS). The American Community Survey is a statistical survey that provides information on the American population on an annual basis. FRED provides economic data and research tools on a quarterly and annual basis. This research will provide a ten-year perspective (2009-2019) on the relationship between unemployment rates and college majors to identify trends and explanations for this data. It will focus on 2019 more specifically as well. Differences

in state unemployment rates by major will be presented to provide an insight into the variability of state-by-state job demand. We will also identify if any new majors have been introduced into these data sources and hypothesize on which may be added in the next decade. We also seek explanations for drastically changed unemployment rates by majors from Baruch College professors.

This research is bound by available data. The most recent data on majors and unemployment rates are from 2019, which excludes the effect of the COVID-19 pandemic. While the data is not yet available, an economic shock such as COVID is likely to have a temporary effect on rising unemployment rates in 2020. A ten-year timeframe was chosen to account for trends that take time to develop, such as the aforementioned decrease in social science unemployment rates. Going back ten years will also provide data on the pullback of unemployment rates for majors affected by the recession, which may serve as an outline for an expected pullback after the job force recovers from COVID.

Many majors in the data sources, such as ethnic studies, are broad - and several, such as operations management, entrepreneurship, cybersecurity, and divisions of sciences within biology, are not included. This research paper assumes that operations management and entrepreneurship fall under finance, cybersecurity falls under computer science, and the division of sciences will remain under biology. Another potential challenge could be the regular changes in job openings and population for the state on a millisecond basis which could prevent us from obtaining numbers truly reflective of the current situation. Lastly, this research paper assumes that most students will work in the same field as their major.

IV. PRELIMINARY IMPLICATIONS

Further expansion on the research presented here will be necessary; as of this publishing time, unemployment rates by college majors are unavailable for the year 2020. That data will show what majors did not change or even decreased in the unemployment rate, which could deem them as more valuable or secure for students. On the other hand, majors that experienced an increase in the unemployment rate can show students that those fields are subject to mass layoffs in response to a pandemic or other extraneous situations. This research might also serve as inspiration for students to pursue certain non-STEM majors that they assumed had high unemployment rates; if the unemployment rate for liberal arts and humanities majors decreased, the workforce is likely to see a rise in entry-level college graduates in those sects. This research could influence additional collegiate expansions into certain majors with a lower unemployment rate. For example, more colleges and universities may take interest in adopting communications majors and applying additional educational expansions in that field if the unemployment rates there dropped.

V.   DATA

|	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
											Unemployment Rate by Major (2009-2019)
Agriculture	2.60%	3.20%	2.10%	1.90%	1.70%	1.70%	1.70%	1.50%	1.70%	1.20%	1.60%
Environment and Natural Resources	4.10%	4.10%	3.70%	3.60%	3.60%	2.70%	2.60%	2.50%	2.60%	2.20%	2.00%
Architecture	7.30%	8.30%	6.80%	4.60%	4.30%	3.00%	2.90%	2.40%	2.30%	2.10%	2.00%
Area, Ethnic, and Civilization Studies	5.20%	4.40%	5.20%	4.00%	4.20%	4.10%	2.70%	2.70%	2.80%	2.50%	2.30%
Communications	5.30%	5.50%	5.50%	4.80%	4.30%	3.90%	3.30%	2.80%	3.00%	2.90%	2.80%
Communication Technologies	7.40%	6.90%	7.80%	6.50%	5.20%	5.50%	5.10%	4.40%	4.30%	4.90%	3.80%
Computer and Information Sciences	5.20%	5.20%	4.20%	3.80%	3.60%	3.10%	2.90%	2.80%	2.70%	2.80%	2.70%
Cosmetology Services and Culinary Arts	7.50%	5.40%	4.00%	5.30%	3.90%	3.30%	3.80%	3.90%	2.70%	3.00%	3.40%
Education Administration and Teaching	2.10%	2.30%	2.30%	2.10%	1.90%	1.50%	1.40%	1.20%	1.00%	1.00%	1.00%
Engineering	3.80%	4.10%	3.20%	3.00%	2.50%	2.40%	2.20%	2.10%	2.20%	2.00%	1.80%
Engineering Technologies	5.00%	5.40%	4.20%	3.60%	3.20%	2.70%	2.80%	2.70%	2.00%	1.90%	1.90%
Linguistics and Foreign Languages	4.00%	4.00%	3.40%	3.90%	3.20%	2.80%	2.50%	2.60%	2.10%	2.10%	1.80%
Family and Consumer Sciences	2.20%	3.30%	3.60%	3.20%	2.40%	2.30%	1.90%	2.00%	1.70%	1.80%	1.80%
Law	6.60%	4.50%	5.50%	3.80%	5.10%	3.60%	3.20%	2.10%	2.70%	3.50%	2.60%
English Language, Literature, and Composition	4.00%	4.20%	4.10%	3.70%	3.40%	3.00%	2.80%	2.50%	2.40%	2.30%	2.30%
Liberal Arts and Humanities	4.20%	4.90%	4.50%	4.00%	3.80%	3.00%	2.80%	2.50%	2.80%	2.20%	1.70%
Library Science	2.40%	2.90%	3.30%	1.70%	0.90%	1.30%	1.40%	1.70%	1.60%	1.90%	0.80%
Biology and Life Sciences	2.70%	3.20%	2.60%	2.90%	2.80%	2.60%	2.30%	2.00%	2.00%	1.70%	1.60%
Mathematics and Statistics	3.60%	3.50%	3.30%	3.00%	2.40%	2.30%	1.90%	1.80%	1.90%	1.70%	1.80%
Military Technologies	0.90%	3.50%	3.80%	2.60%	1.00%	2.90%	2.20%	5.10%	1.60%	1.20%	0.00%
Interdisciplinary and Multi-Disciplinary Studies (General)	3.80%	4.60%	5.30%	4.50%	4.00%	3.60%	3.00%	3.40%	2.50%	2.70%	2.30%
Physical Fitness, Parks, Recreation, and Leisure	4.00%	4.20%	3.10%	3.60%	2.50%	2.70%	2.80%	2.40%	2.60%	2.30%	2.00%
Philosophy and Religious Studies	4.00%	4.40%	3.80%	4.10%	3.30%	3.10%	2.50%	2.50%	2.20%	2.00%	1.70%
Theology and Religious Vocations	2.60%	3.00%	2.90%	2.60%	2.80%	2.20%	2.00%	1.60%	1.20%	1.50%	1.20%
Physical Sciences	3.00%	3.10%	3.10%	2.70%	2.80%	2.60%	2.30%	2.00%	2.20%	1.90%	1.70%
Nuclear, Industrial Radiology, and Biological Technologies	2.20%	2.10%	8.00%	4.60%	3.80%	0.20%	0.00%	2.40%	2.40%	3.20%	1.80%
Psychology	3.90%	4.40%	4.50%	4.00%	3.70%	3.20%	2.90%	2.50%	2.40%	2.20%	2.10%
Criminal Justice and Fire Protection	3.70%	4.50%	4.70%	4.10%	4.20%	3.40%	3.20%	2.70%	2.60%	2.40%	1.80%
Public Affairs, Policy, and Social Work	3.80%	4.60%	4.40%	3.90%	3.00%	3.60%	2.80%	2.20%	2.00%	2.00%	1.80%
Social Sciences	4.10%	4.80%	4.20%	4.10%	3.80%	3.30%	2.70%	2.60%	2.40%	2.30%	2.20%
Construction Services	5.10%	5.50%	4.60%	4.90%	3.50%	2.40%	1.90%	3.20%	1.70%	1.70%	0.90%
Electrical and Mechanic Repairs and Technologies	5.00%	9.00%	3.00%	3.70%	5.70%	2.80%	2.80%	2.40%	1.30%	1.70%	1.20%
Transportation Sciences and Technologies	3.00%	4.80%	4.10%	2.70%	2.40%	2.20%	1.80%	2.50%	1.80%	1.60%	1.50%
Fine Arts	5.80%	5.90%	5.10%	5.10%	4.40%	3.70%	3.30%	3.20%	3.30%	2.60%	2.80%
Medical and Health Sciences and Services	1.80%	2.20%	2.40%	2.20%	2.00%	1.90%	1.80%	1.50%	1.40%	1.40%	1.40%
Business	4.40%	4.80%	4.30%	3.80%	3.50%	2.90%	2.50%	2.40%	2.30%	2.00%	2.10%
History	3.90%	4.10%	4.00%	3.40%	2.70%	2.50%	2.50%	2.00%	2.10%	1.90%	2.00%
N/A	5.40%	5.80%	5.50%	5.10%	4.50%	3.90%	3.40%	3.10%	2.80%	2.60%	2.40%
Federal Unemployment Rate	5.00%	5.50%	5.10%	4.70%	4.20%	3.60%	3.20%	2.90%	2.70%	2.50%	2.30%

The data for college major unemployment rates from 2009 to 2019 is listed above, along with the federal unemployment rate for those years. In 2009, unemployment rates by majors fell in the range of 0.9% to 7.5%. In 2019, the range for college major unemployment rates was from 0% (most likely a very low percentage in the thousandth) to 3.8%. The lowest unemployment rate was for military technologies as a major in both 2009 and 2019. The highest unemployment rate in 2009 was for cosmetology services and culinary arts majors, and in 2019, communication technologies. In general, the unemployment rates between the two were higher in 2009 due to the 2008 recession, which cost millions their jobs. However, many majors, as well as the federal unemployment rate (our base metric) saw an increase in the unemployment rates in 2010. According to the Center on Budget and Policy Priorities, the "rapid ramp-up and subsequent

decline in government hiring for the 2010 census" hurt the potential job growth, even though private employers added over 18 million jobs.

In 2019, most unemployment rates for majors were around 1%. Though the stereotype remains that liberal arts and humanities is an unemployable major, the unemployment rate was 1.7% in 2019. Fine arts, another major that is stereotyped to be unemployable, has an unemployment rate of 2.8%, and interdisciplinary and multidisciplinary studies had an unemployment rate of 2.3% in 2019. In comparison, majors that are considered to be "safe", such as business, had an unemployment rate of 2.1% and computer and information services had an unemployment rate of 2.7% in 2019. Though fine arts indeed has a higher unemployment rate than computer and information services, the difference is not vast; and, liberal arts and humanities' unemployment rate is lower than that of business and computer and information services. Therefore, the stereotype about non-STEM or business-related majors being less employable is not necessarily true.

We selected various majors to discuss their trends and possible explanations for the increases or decreases in the unemployment rates. We chose these majors because they have the strongest explanations for the trends, so we believe our explanations are the most plausible for the majors denoted below.

A. Environment and natural resources

Unemployment Rate of Environmental and Natural Resources Majors (2009-2019)
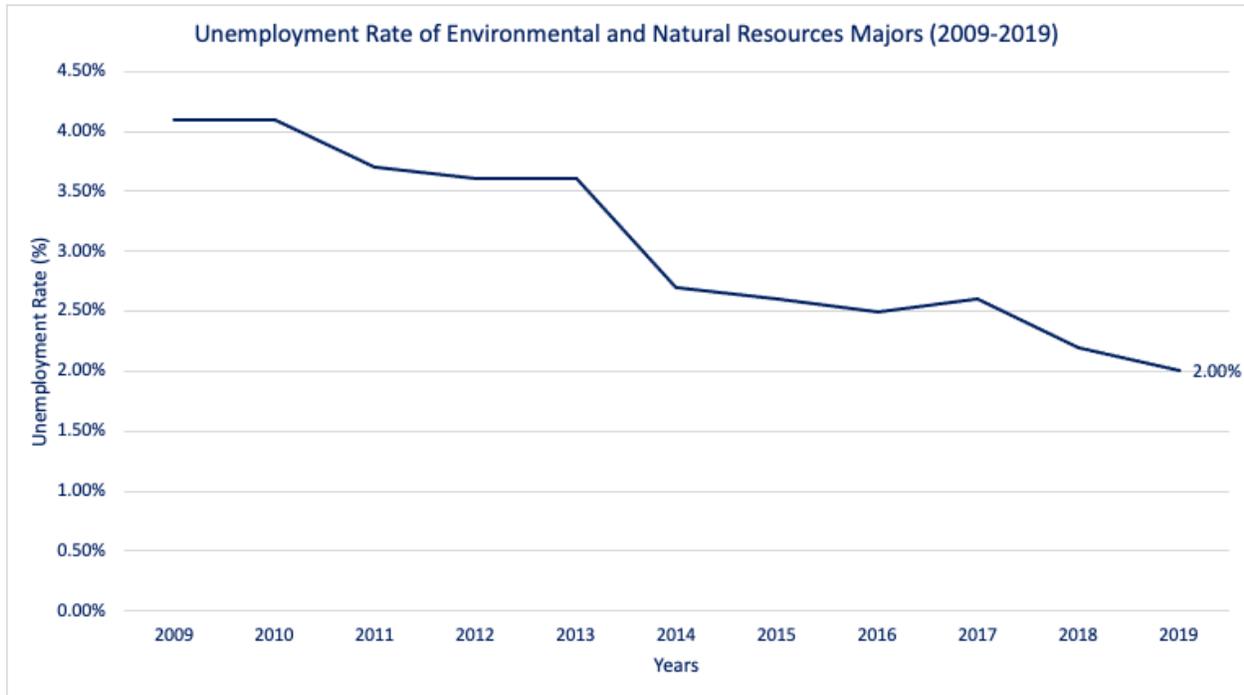
As depicted by the graph above, the environment and natural resources major has seen a steady decrease for the last ten years. In 2009 and 2010, and in 2012 and 2013, the unemployment rate stayed stagnant. Data from 2019 shows that the unemployment rate dropped down to 2%, around a 50% decrease in ten years. From 2013 to 2014 is when this major's unemployment rate had the largest decrease, from 3.6% to 2.7%.

This major may have witnessed a large decrease in its unemployment rate due to climate change. 2012 was one of the hottest years ever recorded, and "sea ice extent reached record low" (Arndt and Blunden). In the year 2013, the world passed 400 parts per million "climate warming carbon dioxide in the atmosphere… for the first time in human history" (Carrington). These effects of climate change have most likely created more jobs in the environmental and natural resource industry. Since 2016, many people have pushed for a green economy and more green deals from the government. The largest news of this year for this major is Biden's electric vehicle

initiative, which states that all federal government vehicles will be replaced by electric vehicles (Subramanian). Therefore, we believe that the unemployment rate for this major will continue decreasing, especially as the world seeks to find natural resources to replace the quickly diminishing nonrenewable sources.

Regression for the environment and natural sciences major over Consumer Price Index and interest rates for 2009-2019

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.9519302							
R Square	0.9061711							
Adjusted R Square	0.8827139							
Standard Error	0.0026273							
Observations	11							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	0.00053332	0.0002667	38.630809	7.75078E-05			
Residual	8	5.5223E-05	6.903E-06					
Total	10	0.00058855						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.1625198	0.04221152	3.8501282	0.0048766	0.065179825	0.2598597	0.0651798	0.2598597
CPI	-0.000562	0.00016391	-3.426403	0.0090025	-0.000939626	-0.000184	-0.00094	-0.000184
Interest rates	9.069E-05	0.00260515	0.0348103	0.9730839	-0.005916796	0.0060982	-0.005917	0.0060982

Analyzing the p-value of CPI, one can see that it is 0.009, speaking approximately, which is < 0.05, indicating that changes in CPI affect the environment and natural resource major. On the contrary, the high p-value for interest rates suggests that there is no significant effect of interest rates on this major. In addition, the multiple R of about 0.95 signifies a strong positive linear relationship between all the three variables.

B. Computer and information Science

Unemployment Rate of Computer and Information Science Majors (2009-2019)
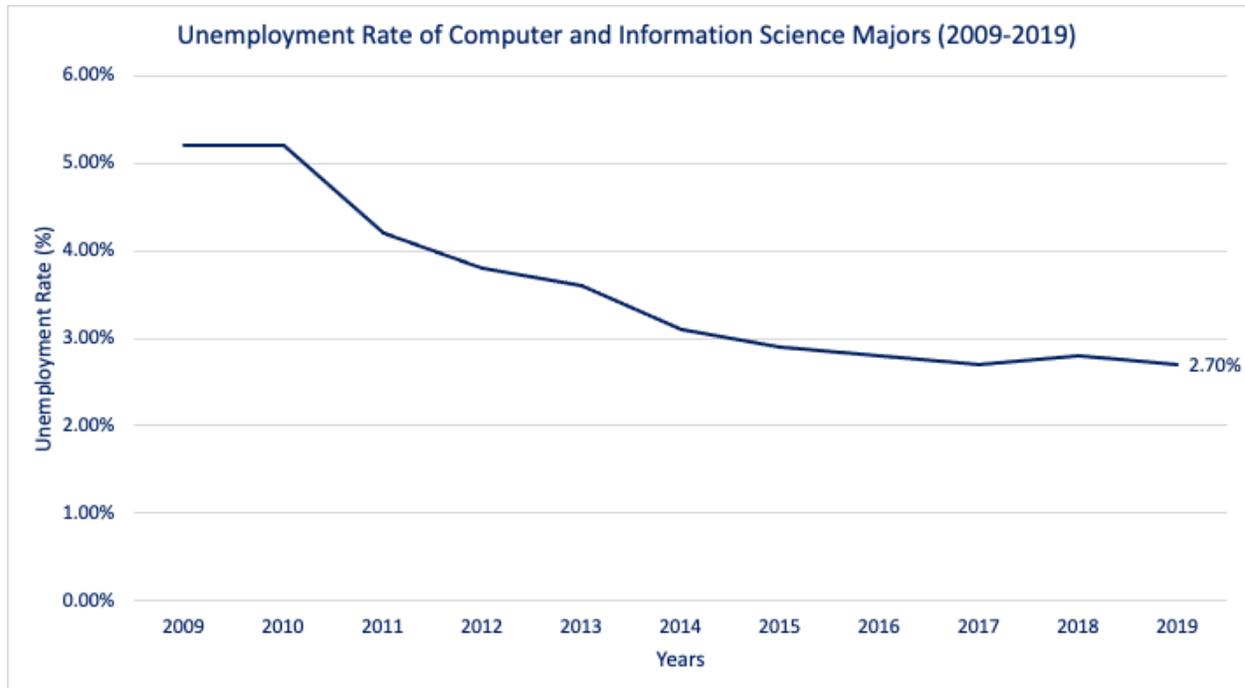
Computer and information science has seen a decrease in the unemployment rate as a major from 2009 until 2019. In 2009 and 2010, the unemployment rate for computer science majors was 5.2% and has steadily fallen until 2014. From 2014 until 2019, the decrease was minimal, around .30%.

The decrease in this unemployment rate is largely due to disruptive technologies such as cloud computing, SaaS (software as a service), 3D printing, and other user interfaces. The U.S. economy witnessed a boom in technology companies and startups, which require employing computer and information science majors. Since 2015, cryptocurrencies and NFTs (non-fungible tokens) have come into more widespread existence; computer and information science skills are closely related to blockchain and Web3 development, which meant college graduates with this major became more important to these companies.

Regression for computer and information sciences major over Consumer Price Index and interest rates for 2009-2019

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.9337177
R Square	0.8718287
Adjusted R S	0.8397859
Standard Err	0.003824
Observations	11

ANOVA

	df	SS	MS	F	Significance F
Regression	2	0.0007957	0.0003979	27.208244	0.0002699
Residual	8	0.000117	1.462E-05		
Total	10	0.0009127			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.257432	0.0614382	4.1900952	0.0030374	0.1157552	0.3991088	0.1157552	0.3991088
CPI	-0.000918	0.0002386	-3.84887	0.0048854	-0.001468	-0.000368	-0.001468	-0.000368
Interest rate	-0.004028	0.0037918	-1.06238	0.3190783	-0.012772	0.0047155	-0.012772	0.0047155

The p-value of CPI for the computer and information sciences major is 0.005, which is less than 0.05, indicating its significant effect. The p-value of about 0.32 for interest rate shows no correlation between the interest rate and the unemployment rate of this major. The multiple R of about 0.93 shows a strong positive linear relationship between all the three variables.

C. Liberal arts and humanities

Unemployment Rate of Liberal Arts and Humanities Majors (2009-2019)
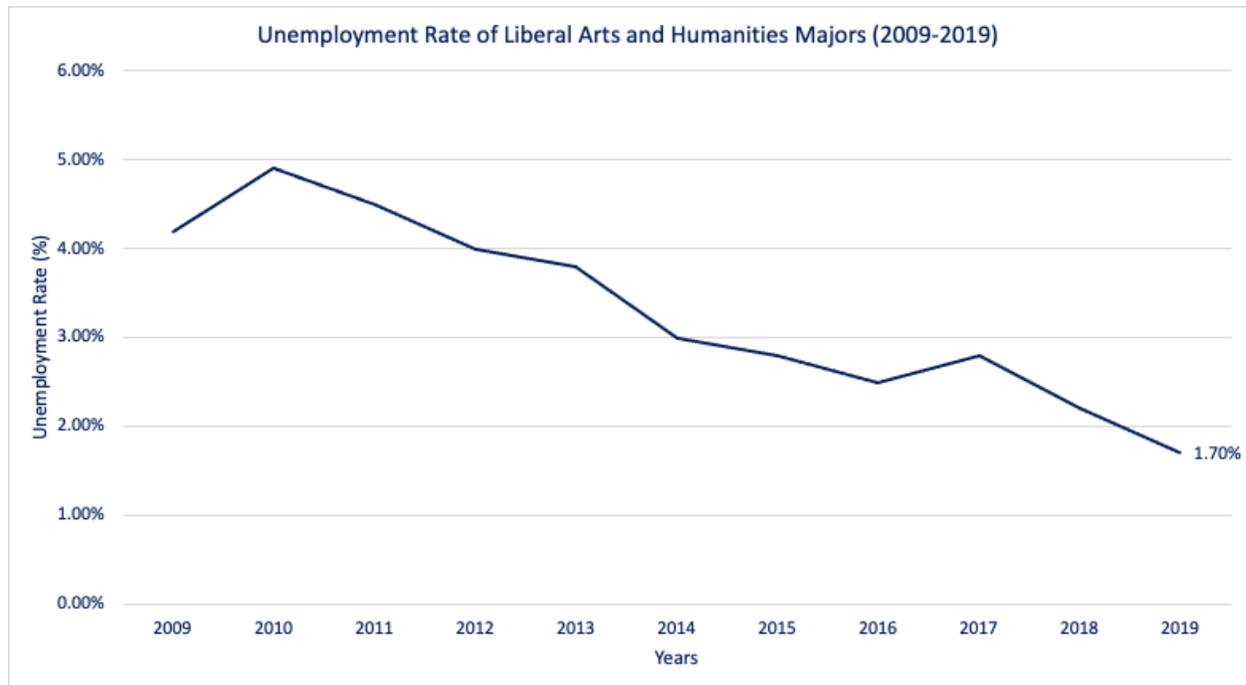
Liberal arts and humanities have seen an increase in their unemployment rate as a major. From 2009-2011, this major went from an unemployment rate of 4.2% to 4.9%, and then to 4.5%. After 2011, this major's unemployment rate has decreased down to 1.7% in 2019. The 2019 unemployment rate is a 40% decrease from the rate in 2009.

Liberal arts is a very vague and subjective major; one institution may have sociology and anthropology under this name, while those are generally social sciences. In general, liberal arts most likely had a decrease in the unemployment rate due to educational institutions expanding their departments and funding, which allows for more professors and pedagogs. Another possible reason could be the necessity of having diversity or human resources in a company. Businesses are starting to see the importance of having diversity and inclusive workshops to hone the soft skills of their workers.

Regression for liberal arts and humanities major over Consumer Price Index and interest rates for 2009-2019

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.9414877
R Square	0.8863991
Adjusted R S	0.8579989
Standard Err	0.0038704
Observations	11

ANOVA

	df	SS	MS	F	Significance F
Regression	2	0.0009351	0.0004675	31.210996	0.0001665
Residual	8	0.0001198	1.498E-05		
Total	10	0.0010549			

	Coefficients	tandard Erro.	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.1550364	0.0621829	2.493231	0.0373338	0.0116423	0.2984305	0.0116423	0.2984305
CPI	-0.000542	0.0002415	-2.242944	0.0551714	-0.001098	1.523E-05	-0.001098	1.523E-05
Interest rate	0.0035256	0.0038377	0.9186768	0.3851258	-0.005324	0.0123754	-0.005324	0.0123754

The p-value of CPI for the liberal arts and humanities major is 0.055, which is a closer value to 0.05, indicating that it could be statistically significant. The p-value of about 0.39 for interest rate shows no correlation between the interest rate and the unemployment rate of this major. The multiple R of about 0.94 shows a strong positive linear relationship between all three variables.

D. Psychology

Unemployment Rate of Psychology Majors (2009-2019)
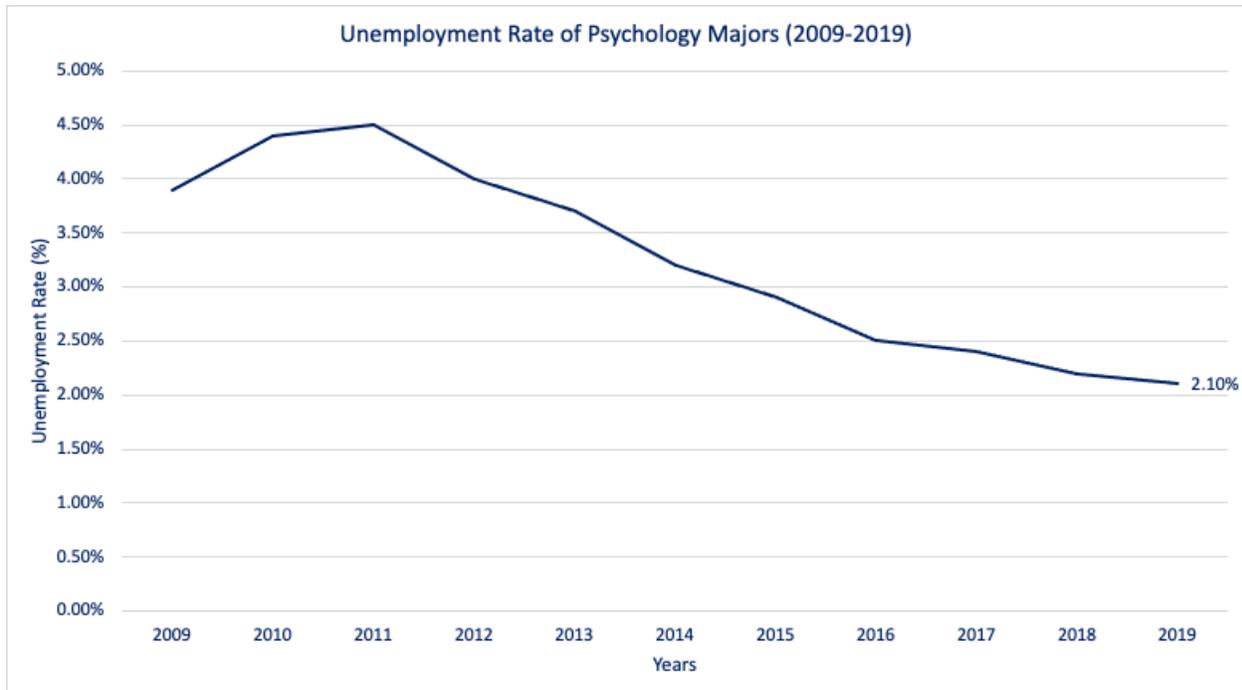
Psychology as a major has seen an increase in the unemployment rate from 2009 until 2011, where the major unemployment rate hit 4.5%. This high was followed by a gradual decrease from 2011 to 2019, where the most recent data is 2.1% unemployment rate for psychology majors.

The most plausible explanation for this decrease in the unemployment rate is society's rejection of mental health stigmas and growing comfortability with therapy. Educational institutions have created therapy groups and some have on-campus psychologists, prompting further discussions about mental health. The decrease in stigma has created more jobs in psychology, which may explain the decrease in the unemployment rate.

Regression for psychology major over Consumer Price Index and interest rates for 2009-2019

SUMMARY OUTPUT

Regression Statistics		
Multiple R	0.92673278	
R Square	0.85883364	
Adjusted R Square	0.82354205	
Standard Error	0.00373537	
Observations	11	

ANOVA

	df	SS	MS	F	Significance F
Regression	2	0.000679103	0.00033955	24.3353628	0.00039712
Residual	8	0.000111624	1.3953E-05		
Total	10	0.000790727			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.10419339	0.060013887	1.73615469	0.12074787	-0.0341989	0.24258566	-0.0341989	0.24258566
CPI	-0.0003373	0.000233045	-1.4472875	0.18583974	-0.0008747	0.00020012	-0.0008747	0.00020012
Interest rate	0.00501746	0.003703848	1.35466016	0.21253958	-0.0035236	0.01355854	-0.0035236	0.01355854

The p-value of CPI and interest rate for the psychology major are about 0.19 and 0.21 respectively, both little higher than 0.05, indicating no relation between them. The multiple R of about 0.93, however, shows a strong positive linear relationship of the CPI and interest rates on the unemployment rate of psychology majors.

E. Social science

Unemployment Rate of Social Science Majors (2009-2019)
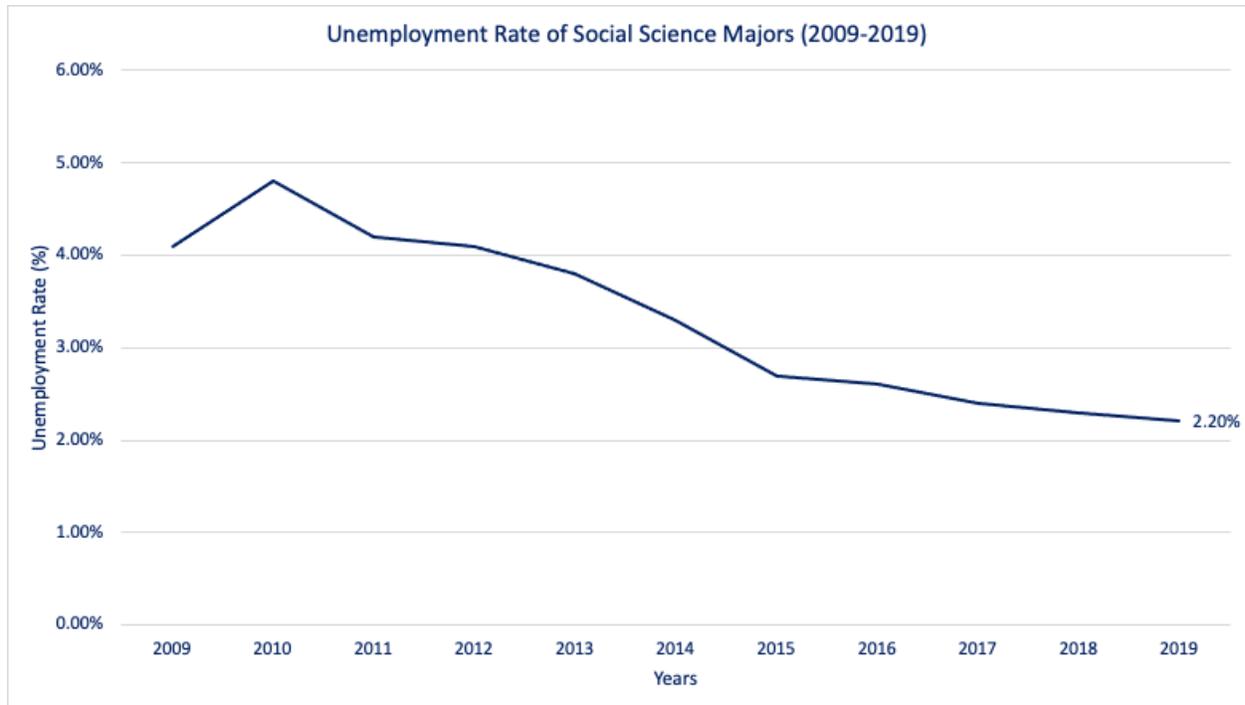
Social science, as a major, has experienced an increase in 2009 to 2010 from 4.1% to 4.8%. A curvature is shown in the decline from the years 2011 to 2015, and a small decline is observed from 2015 to 2019, from 2.7% to 2.2% as of 2019.

As this major details the study of various cultures and power dynamics, we equate this major to the sociology or anthropology field. The decline in this unemployment rate could have been potentially caused by the protests following the death of Michael Brown and Eric Garner due to police brutality. Racial struggles are derived from power struggles, and more academic and political institutions may have started hiring this major to understand the dynamic at play. This major is especially significant this year, as cities across the U.S. had massive riots and protests over the unjust killing of George Floyd. We predict that this field will continue to be employable, especially as tensions between policymakers, the police, and civilians are high.

Regression for social science major over Consumer Price Index and Interest Rates for 2009-2019

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.92724731							
R Square	0.85978757							
Adjusted R Square	0.82473446							
Standard Error	0.00384982							
Observations	11							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	2	0.000727068	0.00036353	24.528141	0.0003865			
Residual	8	0.000118569	1.4821E-05					
Total	10	0.000845636						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.13214938	0.061852588	2.13652147	0.06512826	-0.0104829	0.27478171	-0.0104829	0.27478171
CPI	-0.0004446	0.000240185	-1.8512572	0.10128104	-0.0009985	0.00010922	-0.0009985	0.00010922
Interest rate	0.00364874	0.003817326	0.9558363	0.36714274	-0.005154	0.01245151	-0.005154	0.01245151

The p-value of CPI and interest rate for the social science major are about 0.10 and 0.37 respectively, both a little higher than 0.05 as well, indicating that there may be no relation between them. The Multiple R of about 0.93, however, shows a strong positive linear relationship of the CPI and interest rates on the unemployment rate of social science major.

F. Business

Unemployment Rate of Business Majors (2009-2019)
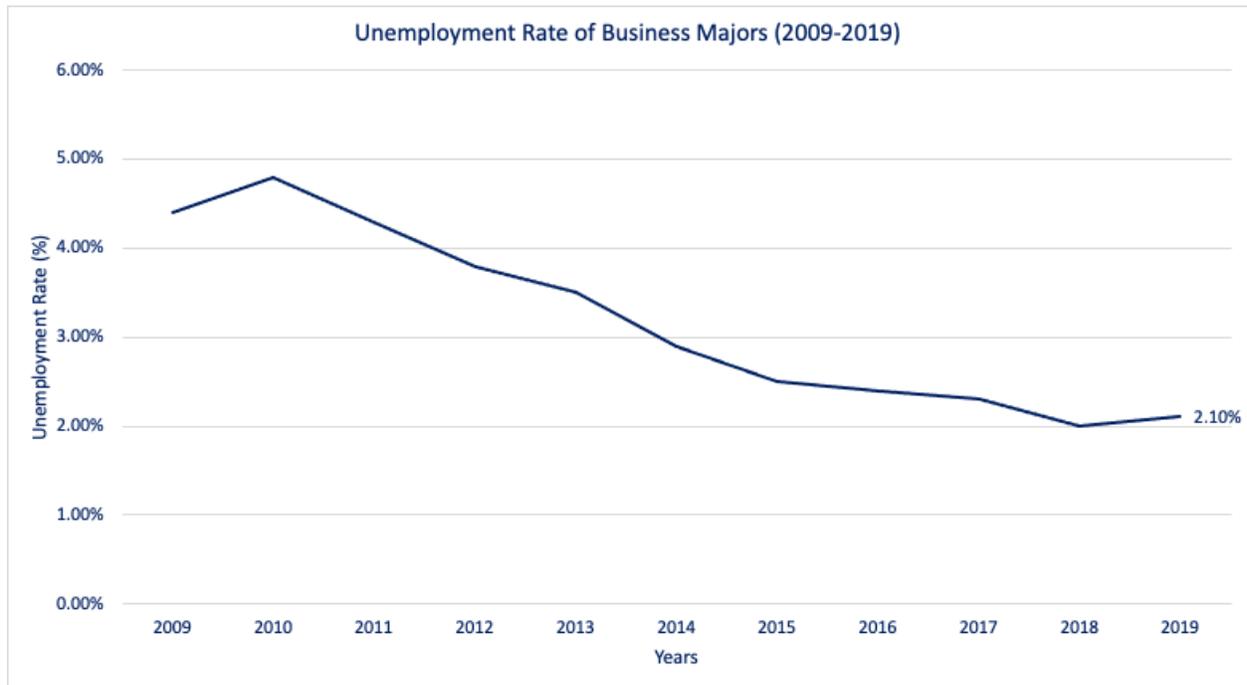
The unemployment rate for business majors has increased from 2009 to 2010, from 4.4% to 4.8%, and then steadily decreased until 2018, where it hit 2%. 2019 has seen a bit of an increase in the unemployment rate to 2.1%.

The reason for the increase in the unemployment rate is most likely the aftermath of the 2008 recession. After the collapse of the Lehman Brothers and the effects of the financial markets being deregulated, many companies had to lay off employees either due to bankruptcy or mergers. However, the decrease in the unemployment rate may be related to the increase of start-ups and new companies we are witnessing in the present economy. While finance majors are likely to continue having a low unemployment rate (unless there is another crisis in the financial markets), according to Professor Dexin Zhou, a Finance Professor at Baruch College, it is possible that "fintech firms will disrupt the traditional finance sector, which likely shifts the

demand to those with more technical skills". Therefore, there may be a chance that computer science majors may have a lower future unemployment rate than finance majors.

Regression for business major over Consumer Price Index and Interest Rates for 2009-2019

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.94438664
R Square	0.89186613
Adjusted R Square	0.86483266
Standard Error	0.00373783
Observations	11

ANOVA

	df	SS	MS	F	Significance F
Regression	2	0.000921865	0.00046093	32.9911839	0.00013672
Residual	8	0.000111771	1.3971E-05		
Total	10	0.001033636			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.19145123	0.060053395	3.18801676	0.01284164	0.05296785	0.32993461	0.05296785	0.32993461
CPI	-0.0006857	0.000233198	-2.9405169	0.01869486	-0.0012235	-0.000148	-0.0012235	-0.000148
Interest rate	0.00102267	0.003706286	0.27592773	0.78959731	-0.007524	0.00956938	-0.007524	0.00956938

The p-value of CPI for the business major is about 0.02, which is less than 0.05, indicating it has a significant effect on the unemployment rate of business majors. While a p-value of about 0.79 for interest rate shows no correlation between the interest rate and the unemployment rate of this major. The Multiple R of about 0.94 shows a strong positive linear relationship between all three variables.

CORRELATION MATRIX

The strong correlations for the environmental and natural resources major are between architecture (0.94); communications (0.95); computer and information sciences (0.93); education administration and teaching (0.95); engineering (0.93); engineering technologies (0.94); linguistics and foreign languages (0.96); english language, literature, and composition (0.96); liberal arts and humanities (0.97); mathematics and statistics (0.94), philosophy and religious studies (0.96); theology and religious sciences (0.91); physical sciences (0.95); psychology (0.94); social sciences (0.96); construction services (0.94); fine arts (0.98); business (0.93); and history (0.97). The high correlation coefficients between the environmental and natural sciences and liberal arts majors like English literature indicate that the latter is employing ecological literature to emphasize issues such as global warming and climate change in an era where such issues are being brought to light. In addition, the high correlation coefficient between environmental and natural resources major and architecture or engineering could imply the growing need for sustainable buildings designed to utilize fewer natural resources. In contrast, the weak correlation with this major is nuclear, industry, radiology, and biological technologies majors (0.41). This is understandable as nuclear and radiological technologies are associated more with improving healthcare and the medical field than the environment.

Some of the strong correlations of the liberal arts and humanities are between environmental and natural sciences (0.97); architecture (0.94); communications (0.96); education and administration and teaching (0.96); engineering (0.92); engineering technologies (0.92); linguistics and foreign language (0.93); english language, literature, and composition (0.97); biology and life sciences (0.92); mathematics and statistics (0.93); philosophy and religious

studies (0.96); theology and religious sciences (0.93); physical sciences (0.97); psychology (0.97); criminal justice and fire protection (0.95); public affairs and policy and social work (0.92); social sciences (0.97); construction services (0.93); fine arts (0.96); business (0.97); and history (0.94). One of the reasons for such correlations is that liberal arts have a direct influence on the skills required in other areas of education such as business and sciences. Many employers look for good communication and creative skills, which come from liberal arts majors, allowing aspiring students to have an advantage on their soft skills. Meanwhile, the weak correlations for this major are military technologies (0.32) and the nuclear, industry, radiology, and biological technologies major (0.45). This is because military technology is a specialized degree for someone who decides to recruit for the army. While the military does require communication and problem-solving skills to some extent, the major is more geared towards those who are looking to study the ins and outs of niche technologies. In addition, nuclear and radiological technologies also require a special area of expertise in the healthcare and technological sector, thus having a weaker relationship with that of the liberal arts and humanities major.

Some of the strong correlations of the psychology are between environmental and natural sciences (0.94); architecture (0.91); area, ethnic, and civilization studies (0.92); communications (0.98); communication technologies (0.92); education and administration and teaching (0.99); linguistics and foreign language (0.93); english language, literature, and composition (0.99); liberal arts and humanities (0.97); biology and life sciences (0.92); mathematics and statistics (0.93); interdisciplinary, and, multi, disciplinary, studies, general (0.95); philosophy and religious studies (0.96); theology and religious sciences (0.97); physical sciences (0.97); criminal justice and fire protection (0.95); public affairs and policy and social work (0.96); social sciences (0.98); construction services (0.91); fine arts (0.94); medical and health sciences and services (0.95)

business (0.97); and history (0.95). The strong correlations between psychology and the several different majors exemplify that not only is psychology limited to those interested in becoming a counselor or similar health profession, but even to those who aspire to learn the human mind and utilize it to influence certain behaviors in others. For example, many c-suite executives employ various leadership strategies to evoke employees into envisioning the result of a given task. It is through learning how others think and behave in a particular setting that encourages others to pursue psychology as a major.

Some of the strong correlations of the social science are between environmental and natural sciences (0.96); architecture (0.93); communications (0.97); computer and information sciences (0.91); education and administration and teaching (0.98); engineering (0.92); engineering technologies (0.93); linguistics and foreign language (0.96); english language, literature, and composition (0.98); liberal arts and humanities (0.97); biology and life sciences (0.95); mathematics and statistics (0.94); interdisciplinary, and, multi, disciplinary, studies, general (0.95); philosophy and religious studies (0.98); theology and religious sciences (0.96); physical sciences (0.95); psychology (0.98); criminal justice and fire protection (0.94); public affairs and policy and social work (0.95); construction services (0.94); fine arts (0.97); business (0.98); and history (0.94). Similar to psychology, the strong correlations between social science and the aforementioned majors suggest that social science is very relevant and an important aspect of society in understanding the challenges and ways to resolve social and unjust issues. For instance, applied sociology is a term that is now coming into light as more people such as STEM majors are becoming interested in researching how they could explain and solve a modern-day dilemma. Therefore, the unemployment rates of social science majors directly impact that of the listed majors above.

Some of the strong correlations of the business major are between environmental and natural sciences (0.97); architecture (0.98); area, ethnic, and civilization studies (0.92); communications (0.99); communication technologies (0.91); computer and information sciences (0.96); education and administration and teaching (0.97); engineering (0.96); engineering technologies (0.97); linguistics and foreign language (0.95); english language, literature, and composition (0.99); liberal arts and humanities (0.97); mathematics and statistics (0.98); philosophy and religious studies (0.96); theology and religious sciences (0.92); physical sciences (0.95); psychology (0.97); public affairs and policy and social work (0.93); social sciences (0.98); construction services (0.94); fine arts (0.99); and history (0.98). The strong correlation between the business major and both STEM and liberal arts majors indicates the versatility and relevance of the business major on a global scale. For instance, architecture and engineering majors come together to develop an action plan for financing new projects. Social science majors are able to make a healthy contribution through the innovations that businesses devise. Furthermore, philosophy and religious sciences can affect business majors such that a company comes together to establish a set of values for which it stands to bring uniqueness. Thus, a business major translates across many professions as highlighted in its high correlation coefficients.

STATES

Below are the unemployment rates per major for Texas, New York, and California. We chose these states to reflect the emphasis on different job industries. For example, California has a larger agriculture sector due to the climate and space than New York. This provides a general overview of the different economic concentrations in the U.S. We also provided the lowest

unemployment rate for majors per state from 2019, excluding majors that did not have data available (marked by N/A).

Texas's Unemployment Rate by Major: 2009-2019

Texas's Unemployment Rate by Major (2009-2019)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	2.50%	4.20%	1.40%	0.60%	1.10%	1.20%	1.90%	2.00%	1.40%	0.90%	1.70%
Environment and Natural Resources	3.50%	3.30%	10.00%	3.40%	1.90%	2.60%	3.40%	3.00%	2.50%	1.30%	N/A
Architecture	7.80%	6.10%	5.40%	2.50%	4.40%	2.00%	2.20%	2.90%	2.00%	1.00%	1.60%
Area, Ethnic, and Civilization Studies	2.50%	3.00%	8.30%	4.10%	N/A	4.40%	1.80%	5.20%	3.00%	3.80%	2.80%
Communications	3.60%	4.10%	3.40%	3.70%	3.60%	4.20%	2.90%	3.40%	3.00%	3.10%	2.60%
Communication Technologies	11.30%	9.40%	4.10%	8.90%	N/A		4.10%	2.60%	3.50%	10.60%	N/A
Computer and Information Sciences	5.60%	3.60%	4.20%	2.40%	3.70%	2.60%	2.50%	2.80%	2.60%	2.40%	3.70%
Cosmetology Services and Culinary Arts	N/A	3.50%	N/A	N/A	N/A	1.50%	N/A	0.30%	0.80%	11.90%	N/A
Education Administration and Teaching	1.90%	1.70%	2.10%	1.80%	1.70%	1.30%	1.20%	1.30%	1.00%	1.30%	1.00%
Engineering	3.60%	3.80%	3.10%	3.20%	2.40%	2.20%	2.00%	2.70%	2.90%	2.40%	2.20%
Engineering Technologies	2.50%	3.40%	3.40%	3.00%	2.40%	2.40%	2.30%	6.30%	3.70%	2.20%	2.40%
Linguistics and Foreign Languages	1.70%	1.90%	2.10%	2.90%	3.00%	2.90%	0.90%	2.20%	1.50%	2.30%	1.70%
Family and Consumer Sciences	0.70%	2.50%	2.20%	1.30%	3.00%	1.30%	1.80%	1.70%	1.30%	2.10%	1.50%
Law	N/A	2.80%	1.20%	N/A	N/A	N/A	4.30%	7.10%	1.90%	2.30%	6.10%
English Language, Literature, and Composition	2.70%	4.10%	3.30%	3.00%	3.20%	2.70%	2.30%	2.10%	2.60%	2.70%	2.70%
Liberal Arts and Humanities	4.30%	2.20%	2.00%	3.50%	3.30%	3.20%	2.00%	2.10%	2.70%	2.60%	2.30%
Library Science	N/A	N/A	N/A	N/A	2.80%	N/A	3.80%	10.10%	N/A	N/A	5.30%
Biology and Life Sciences	2.80%	3.20%	2.10%	3.50%	2.60%	2.30%	2.80%	2.50%	2.50%	1.80%	2.30%
Mathematics and Statistics	2.30%	3.30%	2.40%	3.30%	2.30%	2.20%	2.50%	1.30%	2.30%	1.70%	1.60%
Military Technologies	9.70%	N/A	N/A	N/A	0.00%	N/A	N/A	14.10%	3.80%	N/A	N/A
Interdisciplinary and Multi-Disciplinary Studies (General)	3.10%	3.50%	3.00%	5.20%	2.10%	3.10%	1.40%	4.50%	1.40%	1.50%	2.00%
Physical Fitness, Parks, Recreation, and Leisure	3.70%	3.10%	2.50%	3.00%	0.70%	1.80%	1.90%	1.40%	2.50%	1.80%	1.70%
Philosophy and Religious Studies	1.60%	5.20%	2.10%	3.40%	2.60%	3.00%	0.80%	1.90%	4.00%	1.10%	1.40%
Theology and Religious Vocations	2.10%	3.30%	2.60%	3.80%	2.70%	0.90%	2.30%	1.70%	0.60%	2.20%	0.80%
Physical Sciences	2.60%	3.20%	2.40%	2.70%	2.00%	1.80%	2.80%	2.40%	2.20%	2.40%	2.80%
Nuclear, Industrial Radiology, and Biological Technologies	5.10%	N/A	0.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Psychology	4.60%	3.30%	3.80%	3.30%	3.40%	2.70%	2.80%	2.70%	2.10%	2.60%	2.00%
Criminal Justice and Fire Protection	3.10%	4.40%	4.30%	3.80%	4.10%	3.20%	3.70%	2.90%	3.80%	3.20%	3.20%
Public Affairs, Policy, and Social Work	2.60%	6.40%	7.20%	4.40%	3.40%	2.40%	1.90%	2.60%	1.90%	2.20%	2.10%
Social Sciences	3.60%	4.60%	3.90%	5.00%	3.40%	3.40%	2.90%	3.20%	3.10%	2.70%	2.50%
Construction Services	5.00%	9.20%	3.20%	1.80%	0.70%	1.50%	4.80%	8.00%	1.80%	5.00%	N/A
Electrical and Mechanic Repairs and Technologies	N/A	12.70%	N/A	N/A	N/A	N/A	N/A	8.70%	N/A	N/A	N/A
Transportation Sciences and Technologies	1.60%	2.70%	5.60%	1.20%	2.20%	0.90%	0.70%	6.10%	1.50%	2.80%	1.50%
Fine Arts	5.50%	4.00%	3.40%	3.10%	3.00%	2.80%	2.50%	3.20%	2.80%	1.90%	1.70%
Medical and Health Sciences and Services	1.50%	2.20%	2.20%	2.10%	2.10%	2.90%	2.30%	1.40%	1.10%	2.00%	1.60%
Business	3.70%	4.10%	3.60%	3.00%	2.80%	2.70%	2.50%	2.60%	2.30%	2.40%	2.00%
History	1.80%	4.50%	3.50%	4.70%	2.60%	1.10%	2.50%	1.90%	3.20%	3.10%	2.50%
N/A	4.30%	4.50%	4.40%	4.10%	3.70%	3.10%	2.80%	2.80%	2.60%	2.50%	2.20%
Federal Unemployment Rate	4.10%	4.30%	4.20%	3.90%	3.50%	3.00%	2.70%	2.70%	2.50%	2.40%	2.20%

Texas has the lowest unemployment rate in the following majors: agriculture, architecture, area, ethnic and civilization studies, communications, mathematics and statistics, interdisciplinary and multidisciplinary studies, physical fitness, parks, recreation and leisure, theology and religious vocations, psychology, fine arts, and business. Texas ties in the unemployment rate for the education major with New York, and the social science major with California.

New York's Unemployment Rate by Major: 2009-2019

New York's Unemployment Rate by Major (2009-2019)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	4.20%	4.10%	3.40%	4.00%	5.40%	1.40%	4.60%	2.50%	3.80%	0.40%	1.90%
Environment and Natural Resources	2.30%	6.70%	2.90%	6.70%	4.90%	3.10%	2.80%	1.10%	4.40%	3.20%	2.80%
Architecture	7.50%	6.40%	6.50%	4.50%	5.00%	3.30%	4.40%	3.00%	1.90%	2.50%	2.30%
Area, Ethnic, and Civilization Studies	6.80%	3.70%	2.90%	4.10%	4.90%	6.00%	5.60%	2.80%	1.90%	6.30%	3.50%
Communications	7.50%	5.90%	7.80%	5.20%	5.20%	4.70%	4.40%	2.90%	3.70%	3.40%	3.30%
Communication Technologies	9.80%	7.30%	2.30%	3.50%	1.30%	6.00%	5.90%	5.00%	2.20%	5.70%	3.50%
Computer and Information Sciences	5.20%	6.10%	5.30%	6.00%	5.80%	4.10%	4.30%	3.30%	2.70%	3.60%	2.50%
Cosmetology Services and Culinary Arts	11.20%	5.40%	6.70%	4.30%	1.00%	6.10%	2.00%	6.60%	3.10%	3.10%	N/A
Education Administration and Teaching	2.50%	3.10%	2.80%	3.10%	2.50%	1.80%	1.50%	1.20%	1.20%	1.10%	1.00%
Engineering	4.10%	4.40%	3.70%	3.30%	3.10%	2.70%	3.30%	2.00%	2.00%	1.80%	2.40%
Engineering Technologies	6.20%	4.00%	3.10%	2.10%	4.80%	3.30%	4.00%	2.20%	1.30%	1.20%	1.50%
Linguistics and Foreign Languages	4.30%	3.70%	2.90%	5.90%	2.80%	3.10%	2.90%	4.20%	1.70%	2.20%	1.40%
Family and Consumer Sciences	2.90%	4.60%	3.90%	3.50%	3.10%	1.70%	1.60%	1.00%	0.90%	1.90%	1.00%
Law	8.00%	7.40%	5.40%	7.30%	9.20%	2.90%	4.80%	0.30%	1.70%	8.50%	2.20%
English Language, Literature, and Composition	4.50%	4.50%	4.60%	3.10%	3.70%	3.70%	2.90%	2.80%	3.00%	2.30%	2.60%
Liberal Arts and Humanities	4.30%	4.50%	6.60%	3.60%	3.70%	3.60%	2.60%	4.10%	3.00%	2.90%	2.50%
Library Science	1.80%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.80%	N/A
Biology and Life Sciences	2.80%	3.30%	2.10%	2.00%	2.90%	2.70%	2.80%	2.10%	2.30%	2.50%	1.20%
Mathematics and Statistics	5.10%	3.90%	2.40%	3.70%	3.30%	3.10%	3.10%	1.60%	1.40%	2.60%	1.90%
Military Technologies	N/A	16.30%	0.00%	N/A	N/A	N/A	13.10%	0.00%	0.00%	N/A	N/A
Interdisciplinary and Multi-Disciplinary Studies (General)	4.10%	6.40%	5.20%	5.50%	3.50%	3.50%	4.70%	4.10%	2.10%	3.20%	3.50%
Physical Fitness, Parks, Recreation, and Leisure	5.30%	5.60%	3.00%	3.50%	6.70%	3.60%	4.30%	5.20%	4.30%	4.60%	3.00%
Philosophy and Religious Studies	4.60%	4.50%	4.70%	2.80%	4.00%	2.80%	2.30%	3.00%	2.90%	5.30%	1.00%
Theology and Religious Vocations	5.90%	5.30%	1.70%	7.10%	3.20%	2.60%	1.70%	2.20%	0.20%	2.50%	2.30%
Physical Sciences	3.50%	3.10%	2.60%	3.00%	4.50%	2.70%	2.50%	1.50%	2.40%	2.10%	1.40%
Nuclear, Industrial Radiology, and Biological Technologies	N/A	N/A	42.10%	5.80%	0.00%	N/A	N/A	0.00%	N/A	7.40%	N/A
Psychology	5.00%	4.90%	4.40%	4.90%	4.20%	2.60%	3.50%	2.70%	2.60%	2.70%	2.30%
Criminal Justice and Fire Protection	3.00%	4.20%	4.90%	5.60%	4.10%	3.70%	4.50%	2.30%	2.90%	2.20%	1.50%
Public Affairs, Policy, and Social Work	3.10%	5.90%	4.70%	5.00%	3.30%	3.70%	4.60%	1.90%	2.50%	1.60%	1.90%
Social Sciences	5.30%	5.40%	4.60%	3.60%	4.30%	3.50%	3.60%	3.40%	2.50%	2.30%	2.70%
Construction Services	5.60%	20.00%	2.10%	2.50%	11.40%	6.60%	1.20%	7.30%	1.80%	N/A	N/A
Electrical and Mechanic Repairs and Technologies	0.00%	N/A	N/A	N/A	3.50%	5.30%	6.10%	6.80%	4.20%	N/A	4.10%
Transportation Sciences and Technologies	4.40%	2.30%	4.70%	4.00%	N/A	3.60%	0.30%	4.90%	6.20%	1.60%	3.00%
Fine Arts	9.10%	6.60%	6.20%	6.00%	5.20%	4.00%	3.50%	3.70%	3.90%	3.40%	3.20%
Medical and Health Sciences and Services	1.70%	2.40%	2.40%	2.00%	2.90%	1.90%	1.90%	1.40%	1.40%	0.90%	1.40%
Business	5.20%	5.50%	5.20%	4.50%	4.70%	3.40%	3.20%	3.00%	3.00%	2.40%	2.60%
History	5.10%	3.60%	4.40%	3.00%	2.80%	2.60%	2.40%	2.00%	2.30%	1.60%	2.00%
N/A	4.70%	5.10%	5.10%	5.00%	4.60%	3.80%	3.50%	3.20%	2.90%	2.60%	2.40%
Federal Unemployment Rate	4.70%	5.00%	4.90%	4.80%	4.40%	3.70%	3.40%	3.10%	2.80%	2.50%	2.30%

New York has the lowest unemployment rates in the following majors: computer and information studies, engineering technology, linguistics, family and consumer science, law, english, biology, philosophy, physical sciences, criminal justice and fire protection, and medical and health sciences and services. New York ties in the unemployment rate for the history major with California, and in the unemployment rate for the education major with Texas.

California's Unemployment Rate by Major: 2009-2019

California's Unemployment Rate by Major (2009-2019)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture	4.50%	4.40%	3.60%	2.80%	2.30%	3.10%	2.90%	2.00%	2.00%	2.20%	2.20%
Environment and Natural Resources	7.20%	3.10%	5.80%	6.20%	3.10%	3.20%	1.70%	4.70%	3.50%	3.30%	3.20%
Architecture	8.20%	9.90%	7.60%	5.80%	5.40%	3.40%	3.90%	4.30%	2.80%	2.00%	2.40%
Area, Ethnic, and Civilization Studies	5.40%	6.00%	7.80%	5.20%	2.90%	5.10%	2.20%	3.50%	2.50%	2.70%	3.70%
Communications	7.10%	7.70%	7.80%	6.60%	5.30%	5.10%	4.50%	3.90%	3.60%	4.10%	3.50%
Communication Technologies	5.00%	5.60%	12.60%	6.10%	7.80%	6.50%	8.60%	4.20%	4.00%	7.50%	6.80%
Computer and Information Sciences	6.00%	6.70%	6.10%	4.60%	4.40%	3.50%	3.40%	3.30%	3.80%	3.90%	2.60%
Cosmetology Services and Culinary Arts	16.40%	10.80%	3.20%	11.80%	4.20%	7.50%	6.10%	5.60%	1.00%	N/A	1.60%
Education Administration and Teaching	3.20%	3.60%	2.90%	3.10%	2.70%	1.50%	1.90%	1.50%	1.70%	1.50%	1.40%
Engineering	4.30%	5.20%	4.20%	3.60%	3.50%	3.50%	2.70%	2.20%	2.60%	2.40%	2.10%
Engineering Technologies	6.20%	4.90%	6.30%	3.40%	3.60%	3.40%	3.00%	3.30%	3.20%	2.00%	2.20%
Linguistics and Foreign Languages	5.40%	4.60%	4.10%	5.60%	4.10%	4.40%	3.30%	2.50%	2.40%	3.10%	2.50%
Family and Consumer Sciences	3.60%	4.70%	4.80%	4.40%	3.60%	3.50%	2.50%	2.10%	1.40%	2.00%	1.50%
Law	11.20%	5.60%	10.20%	4.70%	4.50%	5.60%	4.40%	1.70%	4.20%	4.80%	4.40%
English Language, Literature, and Composition	4.80%	5.40%	5.00%	5.00%	3.80%	3.30%	3.20%	3.50%	3.10%	2.40%	2.80%
Liberal Arts and Humanities	4.10%	5.90%	4.70%	5.20%	4.50%	3.10%	3.00%	1.80%	2.70%	2.20%	1.60%
Library Science	5.10%	2.90%	16.00%	N/A	N/A	1.40%	1.30%	N/A	N/A	2.30%	N/A
Biology and Life Sciences	3.20%	4.80%	3.80%	3.50%	3.70%	3.00%	2.50%	2.70%	2.70%	1.80%	2.10%
Mathematics and Statistics	5.70%	4.50%	5.40%	3.40%	3.40%	3.30%	2.40%	2.00%	3.30%	2.90%	2.40%
Military Technologies	N/A	5.10%	N/A	12.90%	N/A	N/A	5.60%	18.90%	N/A	N/A	N/A
Interdisciplinary and Multi-Disciplinary Studies (General)	4.90%	6.50%	6.70%	6.50%	4.60%	6.40%	4.00%	3.30%	2.40%	2.80%	2.60%
Physical Fitness, Parks, Recreation, and Leisure	5.60%	3.10%	3.10%	4.60%	2.00%	4.20%	4.40%	2.10%	2.10%	1.20%	2.30%
Philosophy and Religious Studies	5.10%	4.80%	5.00%	6.90%	4.20%	4.50%	3.20%	3.70%	2.80%	2.40%	2.30%
Theology and Religious Vocations	3.60%	3.70%	4.40%	2.90%	2.90%	2.80%	4.60%	2.10%	1.20%	1.70%	1.10%
Physical Sciences	4.20%	3.70%	5.00%	3.20%	3.50%	2.60%	2.70%	2.70%	2.90%	2.00%	2.00%
Nuclear, Industrial Radiology, and Biological Technologies	4.60%	8.20%	2.00%	13.60%	5.90%	N/A	N/A	N/A	0.00%	3.10%	2.50%
Psychology	4.20%	5.10%	5.40%	4.60%	4.40%	3.70%	3.50%	2.90%	1.20%	2.80%	3.00%
Criminal Justice and Fire Protection	4.30%	6.00%	5.70%	4.30%	6.90%	4.90%	3.30%	4.10%	0.20%	2.10%	3.50%
Public Affairs, Policy, and Social Work	3.30%	4.40%	5.00%	3.80%	2.90%	4.00%	1.90%	2.70%	0.20%	2.00%	1.60%
Social Sciences	4.80%	5.80%	5.00%	5.50%	4.30%	3.70%	3.30%	2.90%	2.30%	3.10%	2.50%
Construction Services	10.20%	3.50%	3.50%	7.50%	2.30%	3.00%	0.50%	3.50%	1.00%	1.00%	0.80%
Electrical and Mechanic Repairs and Technologies	32.10%	N/A	12.20%	8.40%	2.00%	N/A	7.40%	N/A	N/A	2.00%	N/A
Transportation Sciences and Technologies	4.30%	5.70%	3.50%	2.90%	5.00%	6.10%	2.70%	2.30%	N/A		1.20%	0.70%
Fine Arts	7.10%	7.40%	6.80%	7.60%	6.00%	5.10%	3.90%	4.40%	2.30%	4.80%	3.70%
Medical and Health Sciences and Services	2.10%	2.60%	3.60%	2.90%	2.10%	1.80%	2.10%	1.90%	0.80%	1.70%	1.70%
Business	5.40%	6.20%	5.60%	4.60%	4.50%	3.60%	3.10%	3.00%	4.20%	2.90%	2.70%
History	5.20%	4.30%	5.90%	4.50%	3.50%	3.50%	3.10%	2.10%	0.50%	2.90%	2.00%
N/A	5.90%	6.60%	6.40%	5.90%	5.20%	4.40%	3.70%	3.40%	77.50%	3.00%	2.70%
Federal Unemployment Rate	5.70%	6.40%	6.20%	5.60%	5.00%	4.20%	3.60%	3.20%	3.00%	2.80%	2.60%

California has the lowest unemployment rate for the following majors: engineering, liberal arts, and transportation science. California ties in the unemployment rate for the history major with New York, and the social science major with Texas.

VI. CONCLUSION

This research has disproven stigmas around non-STEM majors; the social science major had an unemployment rate of 2.20% in 2019, while business had an unemployment rate of 2.10%. Our first dataset, the unemployment rates characterized by college majors, depicts library science, military technology, and construction services to have the lowest unemployment rates. None of the aforementioned majors are considered STEM (military technology, according to Collegeboard, concentrates on " study leadership skills, weaponry, intelligence, strategy"). This research also shows that college major unemployment rates matter due to the location as well;

depending on where a college major graduate is, the unemployment rate for a law major might be 6% or as low as 2.2%. Our dataset per state is incomplete, as we were missing some unemployment rates for certain years (as previously mentioned, marked N/A). Therefore, our data cannot be used to analyze trends for those majors. More research needs to be conducted to find or approximate those values. According to our data, no new majors have been added to state or federal records. We hypothesize that blockchain technology/ Web-3 and electric vehicle majors will develop in the next ten years, as both those industries have seen a significant rise in the last five years.

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