BRIGHAM YOUNG UNIVERSITY

ECONOMICS

DEPARTMENT MAGAZINE | ISSUE 10 | 2021

10TH ANNIVERSARY EDITION

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FACULTY FUN FACTS

How well do you know the Economics Department faculty? See if you can match your professors to these fun facts!

A. Scott Bradford
B. Matt Butler
C. Jeff Denning
D. Eric Eide
E. Paul Eliason
F. Brigham Frandsen
G. Jim Kearl
H. Emily Leslie
I. Joey McMurray
J. Brennan Platt
K. Arden Pope
L. Jaren Pope
M. Joe Price
N. Olga Stoddard
O. John Stovall
P. Christian vom Lehn
Q. Steven Waters
R. Riley Wilson

_____ 1. I have run the Boston Marathon.

_____ 2. I have four fake teeth (I lost the originals playing soccer as a kid).

_____ 3. My eyes are two different colors.

_____ 4. I have broken my collarbone five times (technically you have collarbones on both sides; I've broken them collectively five times).

_____ 5. (My kids and) I have a massive Lego collection.

_____ 6. I only applied to one school when I applied to college.

_____ 7. My wife and I had only known each other for twelve days when we got engaged.

_____ 8. I am learning Sanskrit.

_____ 9. I am 6'8".

_____ 10. I can move my ears (hands free!).

_____ 11. I can lick my elbow.

_____ 12. I got a C on the test covering economics when I took American Heritage.

_____ 13. I really wanted to be a rancher.

_____ 14. I have multiple instruments (that I don't necessarily play well but enjoy playing): didgeridoo, djembe, violin, mandolin, guitar, strumstick.

_____ 15. I like to play the guitar in a bluegrass style.

_____ 16. I took second place in the 2002 South Eastern Wisconsin Youth Log Rolling Tournament. It's true.

_____ 17. I spent two weeks on two different summers doing the Tour de France climbs on bicycles with three other BYU faculty. The first year we rode in the French Alps and Mont Ventoux; in the second year, we rode in the French Pyrenees.

_____ 18. I roll dice to decide—or rather not decide—what clothes to wear.

1.F 2.I 3.N 4.P 5.J 6.C 7.M 8.D 9.B 10.H 11.R 12.O 13.K 14.Q 15.L 16.E 17.G 18.A

FROM THE CHAIR

"**I THINK THAT** you will all agree that we are living in most interesting times. I never remember myself a time in which our history was so full, in which day by day brought us new objects of interest, and, let me say also, new objects for anxiety."
–Joseph Chamberlain, 1898

We continue to forge through interesting times within the Economics Department. Faced with *The NeverEnding Story* of COVID, faculty have spent the past academic year teaching via Zoom or in person with masks. Efforts to mitigate the spread of illness continue while the faculty strive to provide an excellent in-person experience with students. We are grateful for the patience and perseverance of students, faculty, and staff during this challenging period.

Despite these challenges, we have witnessed the exceptional accomplishments of students who have excelled both within and outside of the classroom. Students are working with faculty on research projects, serving their peers as teaching assistants, and preparing for employment and graduate study. Many of our graduating seniors have gone on to find jobs at prestigious firms or to further study in excellent graduate programs. We applaud them for their accomplishments.

The department bids a fond farewell to Michael Ransom after thirty-three years at Brigham Young University. As a department, we hope to emulate Dr. Ransom and the other faculty who built the department as we push forward in our efforts to provide a world-class education to our students in an environment of faith. Our efforts will be facilitated by the arrival of new faculty, Ryan Hill and Richard Patterson, to whom we offer a warm welcome.

We also thank our generous alumni who provide advice to the faculty, mentoring to our students, and support to the department and university. You form an integral part of the BYU Economics community.

Sincerely,

Lars Lefgren

ECONOMICS

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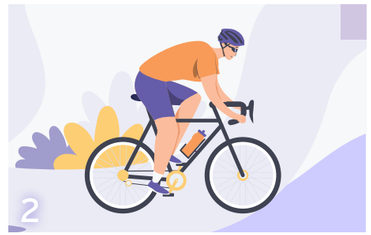
FEATURES



The Good Kind of Positive: Reflecting on the Pandemic

Looking back on the past year and a half, we've compiled some professors' thoughts on the blessings that have come from the pandemic.

The Relationship between BMI and Mortality

Dr. Arden Pope and his RA George Garcia share their research on the link between BMI and risk of death. Hint: it's not what you might expect!

Economics in the Movies

The principles of economics are everywhere, even on the big screen. Come discover the economics that drive some of our favorite films!

Researcher, Mentor, Teacher, Friend: Dr. Ransom's Retirement

Dr. Michael Ransom has officially retired! Join us as we reflect on Dr. Ransom's time at BYU through the eyes of his students and associates.

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THE GOOD KIND OF POSITIVE

by Jenna Palacios

The world changed in March of 2020, and the BYU Economics Department did too. In the wake of the COVID-19 pandemic, the faculty and staff had to start working from home in the middle of a busy semester. The transition required them to learn new skills, like teaching complex concepts over Zoom and collaborating with research assistants from afar. Many of our faculty had the unique opportunity to be coworkers (in a sense) with their children still living at home: a situation both challenging and precious. And, of course, many of us have had trials related to the pandemic, like getting sick, having friends and family get sick, or watching loved ones struggle through the economic ramifications of turbulent times.

While the Economics Department and BYU campus are finally starting to return to normal, we want to take a moment to reflect on the past year and a half. If testing positive for COVID-19 is the bad kind of positive, we're focusing on the good kind of positive—the blessings and life lessons we'll carry with us in the post-pandemic world. Here's what our faculty had to say when we asked them about the best things that came out of the pandemic.

Arden Pope

More evenings with my wife.

Olga Stoddard

During the pandemic, I have been co-organizing a weekly online seminar on the Economics of Discrimination & Disparities.

Jeff Denning

I have done more outdoor activities by myself and with family and friends.

Christian vom Lehn

Personally, the best thing about the pandemic was probably just more time with family. Professionally, just before the pandemic, I got two of the best R&Rs in my career so far, so having those to work on has been a silver lining.

Joey McMurray

A blessing from the pandemic was more time with my family.

Jim Kearl

To get out of the house, my wife and I started doing Friday drives. If we could get to a place and back in a day, we did it. We have not missed a single Friday in more than a year. So, we have been to many parts of Utah that we've never seen before, essentially from Capitol Reef on the south to the Idaho border on the north and from the Uinta Basin on the east to the Nevada border on the west. In June, I decided to try bird photography and purchased a nice camera and telephoto lens. So, in the past six months or so, lots of our Friday drives have been to wildlife areas throughout Northern Utah, particularly to the Farmington Bay wildlife area, Antelope Island, and the Bear River Bird Refuge and to the west desert to get pictures of wild horses.

Eric Eide

Teaching from home during spring term and fall semester allowed me to spend more time with my dog before he recently passed away.

Brennan Platt

Professionally, my two best papers became my two best publications (*AER* and *AEJ:Micro*). Personally, all my kids learned to golf over the summer, and we really mastered home church.

Steven Waters

More time to meditate. More time to cycle. A clearer focus on things close at hand. Simple pleasures like a walk outside, a drive to see birds, a hike in the hills. More deliberate efforts to connect with others—a recognition that my daily interactions were rarely planned and now they need to be. Baking sourdough bread. Drinking Dr. Pepper. Driving less. Netflix series. A recognition of just how very blessed I am.

Mark Showalter

New data! It probably isn't the "best thing" from the pandemic, but it has been fascinating to live through a singular event in history and see how individuals, communities, and nations react, adapt, and progress.

Paul Eliason

Virtual conferences are really convenient. Also, the fact that I'll never wait in line again at the Cougareat thanks to mobile ordering.

Scott Bradford

Greater appreciation for maskless in-person interactions with my fellow human beings.

Brigham Frandsen

The best thing to come out of the pandemic was getting to spend more time with my kids.

Emily Leslie

Reconnecting with my family.

Riley Wilson

We had a baby in October [2020], which really brightened things up in the thick of the pandemic!

Matt Butler

I am more aware of the daily struggles my children face than before the pandemic.

Joe Price

Video conferencing has become more common, and this has opened up lots of great ways to interact with students, coauthors, and alumni.

Jaren Pope

Learning more about the resiliency and adaptability of myself and my family.

John Stovall

No one in my family has gotten sick with anything this last year. No cold, flu, vomiting, etc.

Images from Freepik

THE RELATIONSHIP BETWEEN

BMI & MORTALITY

BY JENNA PALACIOS

Imagine this: you're in a waiting room, flipping through a magazine, when a nurse walks in and calls your name. You follow her to the back room, where you allow her to measure your height and weight. She then leads you to an examination room and asks you to sit on a table covered with crinkly tissue paper. The doctor will be here any moment, she says.

When the doctor comes in—after tap-tapping on the heavy door—he sits on his swivel stool and eyes you over the edge of his clipboard. "You're overweight," he says.

What is your initial response? Are you offended? Defensive? Do you find yourself wondering who, exactly, gave your doctor the authority to comment on the size of your body?

The truth is, when the doctor tells you you're overweight—or underweight, or normal weight, or obese—he's not trying to insult you. And he's not being subjective. Health professionals use objective criteria to measure a person's physical health. One of those criteria is Body Mass Index, or BMI.

BMI is a tool for evaluating relative body mass, calculated from a person's height and weight. For example, a man who is 5'11" and weighs 172 pounds has an approximate BMI of 24, which lands in the "normal" range (18.5 to 24.9 BMI). The other four ranges are underweight (<18.5 BMI), overweight (25 to 29.9 BMI), obese (30 to 39.9 BMI), or severely obese (40+ BMI).[1]

When it comes to health, BMI isn't a perfect indicator. It has some limitations. For instance, BMI may overestimate the amount of body fat in individuals with high muscle mass, such as athletes, or it may underestimate the amount of body fat in individuals who have low muscle tone, such as the elderly.[2] But overall, BMI is an important measure because certain BMIs (particularly very high or very low BMIs) are correlated to health complications.

Perhaps the most important health complication for all of us to consider is mortality. So, how are BMI and mortality related? In other words, if all other factors are accounted for, how does BMI impact a person's lifespan? It may surprise you to know that significant work has been done on this subject by a research team in our very own BYU Economics Department.

Images from Unsplash

An Accidental Discovery

Back in 2016, Dr. Arden Pope and his research assistants stumbled upon this question of BMI and mortality. At the time, they were trying to deduce whether a person's risk of mortality increases with long-term exposure to air pollution. The team used data from the National Health Interview Survey (NHIS) to analyze the relationship between long-term air pollution exposure and mortality while controlling for the factors that might affect mortality. Naturally, one of those factors was BMI.

When the team looked at BMI in their analysis, they made an interesting observation: the BMI with the lowest mortality risk was actually higher than expected. Instead of being in the healthy BMI range, it was in the overweight range. This discovery ran counter to common sense, and it was interesting enough that Dr. Pope wanted to pursue it. In Dr. Pope's words, "We actually did a little bit of analysis on that, thought we might want to publish a paper on it . . . but things never really panned out until George came along." George Reuben Garcia III ('21) joined Dr. Pope's team in 2019 and got to work on the BMI project. "He took it away," says Dr. Pope. "He's very bright, very intelligent, and a good student, and so he . . . really took the lead in coming up with this very fine paper."

Reverse Causality

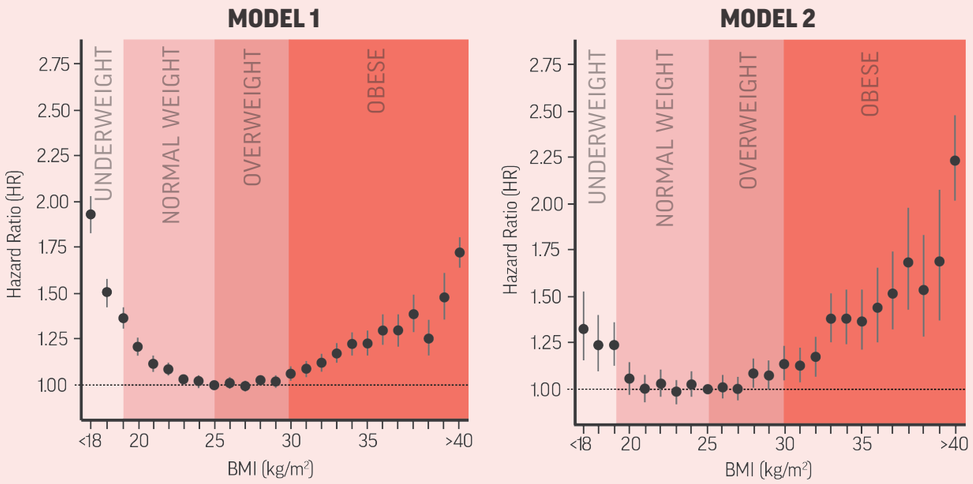
When George was first assigned to the BMI project, he had to get up to speed with the NHIS data, modeling techniques, and the existing literature on the subject. It turned out that Dr. Pope's team hadn't been the first to stumble upon this unexpected trend with BMI and mortality; other researchers had caught on to it as well and had contributed their findings to the topic for decades. But what the other researchers had failed to satisfactorily address, and what made George's approach to the research so unique, was the issue of reverse causality.

In George's words, "To put [reverse causality] simply, there are certain diseases that affect how much you weigh, and then there are certain diseases that are affected by how much you weigh. So, it goes both ways, and if you're trying to determine the effect of BMI on mortality, you have to really take into consideration the fact that BMI and diseases go hand in hand."

Though conditions such as diabetes and hypertension are associated with being overweight, Dr. Pope explains that certain diseases are associated with being underweight as well. "Really severely underweight people may be underweight because of disease. Tuberculosis is a common thing to have and be underweight, HIV is another. . . . So people may be underweight because of the disease; they don't have the disease because they're underweight."

Because of the interconnectedness of BMI and disease, George and Dr. Pope approached their research by carefully controlling for conditions that affect mortality. They did this by first compiling a cohort of more than 654,000 individuals from the NHIS. Individuals qualified for this cohort if they were over 18 years of age and had provided information on their age, sex, race, income, marital status, education, mortality status, date of death (where applicable), BMI, smoking status, health status, and chronic-condition status.[3] George used that massive cohort to create subcohorts based on health status and smoking status. When these subcohorts were compared, they revealed intriguing results.

"If you're trying to determine the effect of BMI on mortality, you have to really take into consideration that BMI and diseases go hand in hand."



Model 1 shows mortality risk per BMI in the general population (controlling for smoking status and preexisting conditions).

Model 2 shows mortality risk per BMI in the healthier population (excluding smokers and individuals with preexisting conditions). In reading these models, keep in mind that a hazard ratio (HR) of 2.00 means an individual is twice as likely to die in any given day.

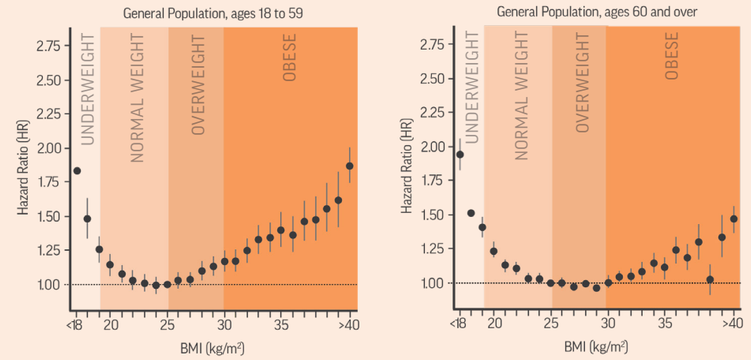
The Results

The models above display two BMI–mortality curves from George's analysis. Model 1 represents the general population while controlling for smoking status and preexisting condition status, among other demographic information. Model 2 excludes individuals who died within the first five years of survey follow-up, current and former smokers, and individuals with preexisting conditions, essentially ensuring that these individuals are a relatively healthy subset of the population.

BMI values are numbered along the x-axis, with shading to indicate the BMI categories of underweight, normal weight, overweight, and obese. Hazard Ratio (HR) values run along the y-axis. The higher the HR, the higher a person's risk of death. To put this data into perspective, an HR of 1.00 means that a person is no more or less likely to die in any given day than anyone else. On the other hand, having an HR of 2.00 means a person's risk of death is doubled, or his or her mortality risk is about the same as that of a lifelong smoker.

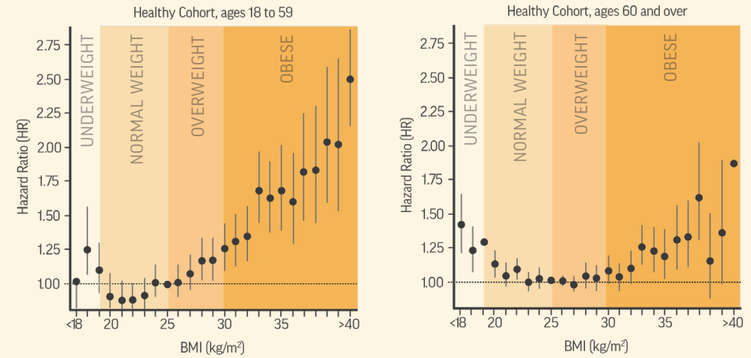
When we look at the general population in the first model, we see that the lowest hazard risk belongs to individuals with a BMI of 27, which sits in the overweight BMI range. Based on this observation alone, one might conclude that it's healthier to be overweight than to be normal weight. But for the healthy subset of the population shown in Model 2, the BMI with the lowest hazard risk is 23. That value falls squarely in the normal BMI category. These numbers suggest that, when it comes to minimizing mortality risk, it may be better for individuals in the general population to be slightly overweight, but for relatively healthy individuals (non-smokers with no chronic conditions), it's safer to be in the normal weight range.

Another interesting observation is that both models show a fairly wide range of BMIs with low mortality risks. In other words, the data is fairly forgiving for most normal weight to overweight individuals and less forgiving for individuals who are severely underweight or obese. Dr. Pope comments, "We wouldn't want to argue that this is suggestive that being overweight is somehow good for you. But it is a bit suggestive that there's a pretty wide range where it doesn't matter very much."



Model 1 Stratified by Age

These models show BMI-mortality relationships for two age groups in the general population. We see here that, for individuals older than 60, the BMI-mortality curve is fairly forgiving.



Model 2 Stratified by Age

These models show BMI-mortality relationships for two age groups in the healthy subset of the population. For individuals younger than 60, there is a steeper risk for being overweight or obese.

When George took Model 1 and stratified the data based on age, he gained even more insight into the BMI–mortality relationship. Those results can be seen above. The most striking observation here is that, for the general population below 60 years of age, the mortality curve is somewhat flat between BMIs of 22 to 25. Comparatively, for general population individuals older than 60, the curve is flat from about 23 BMI to about 30, almost 31. George comments, "That difference across the ages is just absolutely striking, suggesting that . . . when you're 60 and over, being heavy is not a big deal. . . . Not being obese, mind you . . . but again you see that the lowest relative risk of mortality is right here, in the overweight category."

"There's really not a lot of evidence of that in there, that being overweight won't hurt you."

George also examined age differences in the healthy subcohort. In this examination, the BMI values with the lowest mortality risk are far lower than we've seen in other models—at 21 and 22. From there, mortality risk increases in an almost linear fashion as BMI values increase. Suddenly having a BMI of 27 doesn't seem as harmless as it did when looking at the other mortality curves; we now see that having a BMI of 27 puts a healthy young individual at a slightly higher risk of mortality, and every BMI increase after 27 jumps higher in risk.

For a twenty-year-old with a BMI of 27, this data may be motivation to slim down and create healthier habits. But a sixty-year-old with a BMI of 27 looking at the same set of data may feel a sense of relief. Dr. Pope jokes, "I look at that [curve] and say, 'Oh! I'm perfect.'"

Public Health Implications

Joking aside, George and Dr. Pope both hope that their research doesn't lull overweight individuals into a false sense of security. In nearly every model they generated—even the models that showed a BMI of 27 as having the lowest hazard ratio—a BMI of 27 was also right at the threshold of a rapid increase in risk. That's why health officials may hesitate to publicize this type of research; they don't want the public to mistakenly conclude that it's somehow healthier to be overweight. "There's really not a lot of evidence of that in here, that being overweight won't hurt you," Dr. Pope says.

Above all, George's work with reverse causality has shown that the relationship between BMI and mortality can't be summarized in one sweeping statement; it's a complex and incredibly nuanced relationship. It would be impossible for doctors or dietitians to put one BMI value forward as the ideal, low-risk BMI because there are so many factors that affect mortality.

So how should an individual approach the results from this research study? Perhaps with an understanding that although BMI is a helpful benchmark, it isn't an all-inclusive health indicator. There are other measures of health—like waist circumference, cholesterol levels, blood pressure, and heartrate—that

we can use in addition to BMI to identify our personal health needs.[4] And although this particular study on BMI and mortality is very thorough, it is not exhaustive. There is still a lot we don't know about this complex relationship, and there are new angles on the topic that need to be approached in further study.

Moving Forward

For now, neither George nor Dr. Pope plans on pursuing this topic any further. Dr. Pope considers the BMI research a fun side project but wants to continue his research on the health effects of air pollution. George also has other research interests to pursue. One of those interests is investigating whether there is a relationship between air quality and users' sentiment on Twitter. He's also studying democracy and populism in Latin America and "trying to understand how we can help public servants actually use and think about evidence when they're making policy decisions."

After completing his predoctoral fellowship at Stanford beginning in fall 2021, George plans to apply to economics PhD programs, thereby joining the ranks of Dr. Pope's previous research assistants who are pursuing great things with their degrees. "It's actually remarkable how successful most of them have been," says Dr. Pope. "We've got a PhD at Harvard, a PhD at BU, a [consultant at] Cornerstone Research, another PhD at UC San Diego, another PhD at UC Berkeley, another one at Chicago, and three here who are applying to PhD programs." Earlier this year, one of those students, Zac Pond, got accepted to a PhD program at UC Berkeley starting fall 2021.

George attributes these students' success to Dr. Pope's mentorship. Speaking of his own experiences researching on Dr. Pope's team, George says, "[Dr. Pope] helped reel me back and recognize that science is . . . a game of understanding what needs to be done to help other people understand [the world] better."

From start to finish, the BMI–mortality project has been an exercise in the nature of scientific discovery; as Dr. Pope explains, the project morphed from an interesting observation to "a hobby project" to "a high-quality piece of research that contributes to the obesity and health literature . . . one of the best single studies on this issue to date." While he doesn't dismiss the other studies that have been done on the topic, Dr. Pope acknowledges that this "is a really good one, and it's very thoughtful. It's very worked out. And [George] hasn't tried to be controversial for the sake of controversy. He's just trying to get the results in a clean, straightforward way."

These straightforward results will inform the public health conversation in the future. And although BMI isn't a perfect tool for estimating body fat and health risks, it remains a helpful health indicator with real implications, including risk of mortality. **JP**

1. Centers for Disease Control and Prevention. 2021. "Defining Adult Overweight and Obesity." Last modified March 3, 2021. https://www.cdc.gov/obesity/adult/defining.html

2. National Heart, Blood, and Lung Institute. n.d. "Assessing Your Weight and Health Risk." https://www.nhlbi.nih.gov/health/educational/lose_wt/risk.htm#limitations

3. Garcia, George R. III, Nathan C. Coleman, Zachari A. Pond, and C. Arden Pope III. 2021. "Shape of BMI-Mortality Risk Associations: Reverse Causality and Heterogeneity in a Representative Cohort of US Adults." *Obesity*. https://doi.org/10.1002/oby.23114

4. American Cancer Society. 2020. "Normal Weight Ranges: Body Mass Index (BMI)." Body Weight and Cancer Risk. Last modified June 9, 2020. https://www.cancer.org/cancer/cancer-causes/diet-physical-activity/body-weight-and-cancer-risk/adult-bmi.html

VALEDICTORIAN SPOTLIGHT:

GEORGE REUBEN GARCIA III

George Garcia came to BYU in 2017 as a first-generation college student from Pueblo, Colorado. At first, he felt out of place in a university setting. "I honestly didn't know what college was for," George says. "I knew a few people who had college degrees, like teachers and businesspeople, but it always seemed like getting a degree was something you had to fulfill so you could get a job and that was it." The thing that changed his perspective was a political science class, where the professor told the students that he wanted to help them understand how to create new knowledge. "That struck me, because I didn't know that was really a possibility," says George. He was motivated by the prospect of being a producer of knowledge rather than just a consumer, and that motivation led him to pursue research opportunities throughout his time at BYU.

Although George researched with several professors, he considers his work with Dr. Pope and his work with political science professor Dr. Hawkins to be two highlights of his undergraduate experience. "They really let me do my own thing while mentoring me through it," he says. Some of his other highlights included interning with The Humane League and cofounding the BYU Interfaith Student Association. No matter the experience, George's personal mantra is to do the most good he possibly can. That's why he chose to major in economics: because the field offers "such a rich set of tools and such a fantastic framework for helping people."

George graduated from BYU in April 2021 as valedictorian of the BYU Economics Department. He had two majors (economics and mathematics) and three minors (philosophy, political science, and Latin America studies). Speaking of his future, George says, "I'll end up . . . wherever I feel like I can do the most good. I don't know if that means staying in academia or working for a nonprofit or whatever that would entail, but I'm flexible."

ECONOMICS IN THE MOVIES

BY AMELIA HAPGOOD, LARS LEFGREN, AND JENNA PALACIOS

We witness economics in action on Wall Street, in domestic markets, and in international trade policy. Yet what most people don't realize is that economic principles are also evident in our favorite movies. Stacey Vanek Smith from NPR's *The Indicator* says she "can't go to the movies without seeing the economics within the movie." When we dive deeper into our beloved films, we see that the principles of economics are easy to spot, if you just have an eye for them. From the allocation of finite resources in the Marvel Universe to game theory in *The Princess Bride*, let's take a fresh look at some of our favorite movies through the lens of economics.

Return of the Jedi

In *Return of the Jedi*,[1] Jabba the Hutt and Princess Leia, disguised as a bounty hunter, negotiate over the transfer of Chewbacca to the underworld boss. With C3PO translating, the bargaining begins following the usual pattern.

Jabba: The illustrious Jabba bids you welcome and will gladly pay you the reward of 25,000.

Leia: 50,000. No less.

At this point, the negotiations take a turn sideways.

Jabba: The mighty Jabba asked why he must pay 50,000.

Leia: Because [I'm] holding a thermal detonator.

Had Jabba taken and passed Econ 382, he might have observed that Leia was making a non-credible threat. It seems unlikely that it would be worth blowing up herself and the rest of the cantina over 25,000 credits. He could have comfortably called her bluff, confidently avoiding a Nash equilibrium which was not subgame perfect. On the other hand, Jabba may have had special insight into the cost of self-destruction for his "kind of scum, fearless and inventive."[1] In this case, settling the bargain at 35,000 may indeed have been optimal.

Moneyball

Moneyball[2] is unique in that it is the only movie, to our knowledge, that enjoys a cameo appearance of the statistical programming language Stata. This is the language that our students use for the majority of the econometrics curriculum in the major (though many also learn R and Python).

In the movie, Peter Brand explains to Billy Beane how appropriate use of statistics can help the Oakland A's become a more successful baseball franchise. After increasing the statistical rigor underlying their player personnel decisions, the Oakland A's go on to win the American League West title.

Both through their coursework and in research opportunities with faculty, students develop the technical abilities that help them be similarly successful in both business and academic environments. Many become excellent programmers with a strong command of regression analysis, machine learning, and other modern empirical techniques. They routinely find jobs as data scientists, economic consultants, business analysts, and research assistants. Some continue their education at the best graduate programs studying these topics.

Avengers: Endgame

According to BYU Economics student Harrison Stokes, Thanos, the galactic warlord in the *Avengers* franchise, exemplifies an economic principle in his quest to "re-balance the universe." Harrison says, "The problem [Thanos] sees is finite resources against unsustainable population growth, so his solution is to find infinity stones to magically eliminate half of the universe's population."[3]

In 2019, NPR hosts discussed Thanos's plan and compared it to the Black Death that occurred in the 1300s.[4] Tragically, millions of people died due to the Plague and overall GDP fell, but per capita living standards of the survivors improved. Thanos's plan goes along those same lines, but it ignores a growing body of evidence that population growth encourages innovation, which leads to higher economic welfare. The NPR hosts quipped that if Thanos had used the infinity stones to increase taxes on resources, there could have been a better chance at innovation and discovering better methods of developing and using available resources in the long run.

The Family Man

In the heartwarming movie *The Family Man*,[5] the main character, Jack, is a successful New York City businessman and an eternal bachelor. After a twist of fate, he is transported into a parallel universe: an alternate life where he married his college sweetheart and has two noisy children in a small suburban home. Over the course of the movie, he learns to adjust and come to terms with things like having a minivan instead of a Corvette, and having kids, who he eventually loves like his own.

This movie brings to life the principle of opportunity cost, as it leads us to consider how one choice can drastically change a person's life. Years before, Jack had the choice to either go on his big-shot internship in London or stay home and marry his college girlfriend, per her request. In that airport, he weighed his options and decided he would rather chase the prestigious career path, thus missing out on the family life. He realizes at the end of the movie that because he chose the internship, he lost a beautiful wife and children and instead only had his career. Having learned his lesson, Jack is able to return to his original life and track down his ex-girlfriend from college so he can pursue the choice with a greater ultimate reward.

The Princess Bride

The Princess Bride[6] is a classic 1987 film that showcases a game theory scenario. In this timeless scene, two characters called Vizzini and the Masked Man sit at a table, challenging each other to a battle of wits. There are two wine glasses on the table, allegedly one poisoned by the Masked Man and one safe to drink. Vizzini must simply select the wine glass that is safe to drink. "The Masked Man sets up the problem as having two possible outcomes, depending on the cup that is chosen," Dr. Mark Showalter explains. However, Vizzini is unaware of the fact that the Masked Man has spent decades building an immunity to this specific type of poison and has therefore poisoned both glasses of wine with no risk to himself. Dr. Showalter continues, "This is a classic case of asymmetric information [in a game theory scenario], which Vizzini ignores to his detriment (death)." **AH**

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We would love to hear from you!

These classic films are just a small sample of movies that portray economic principles. From action movies to romantic comedies, economic principles are a driving force in movie plots that can teach us about family, love, resilience, and success. So, next time you visit the big screen or try a new show on Netflix, pay attention to the economic principles that make the movie work. We'd love to hear what you learn—just give us a holler on Twitter @BYUEcon sharing what you find.

FACULTY SCHOLARSHIP

Contemporary State Policies and Intergenerational Income Mobility

David Sims **Jaren Pope** **Lars Lefgren**

THE CHERISHED IDEA of the American Dream is closely tied to the possibility of economic mobility. Indeed, the ability to change your economic circumstances from those of your parents is considered a defining feature of a good society by many contemporary Americans. However, recent advances in data linking have shown that there are vast geographical differences in the level of economic mobility across American counties and states. Using county-level analysis, we explore the degree to which these features are due to differences in government policies commonly thought to influence economic mobility.

As almost all of these policies are determined at a state level, our empirical strategy works by comparing the differences across adjacent counties within a state to those of adjacent counties in neighboring states. The key idea is that many state boundaries are primarily political, rather than cultural or geographic in nature. Thus, non-policy determinants of economic mobility such as resources, culture, or climate are unlikely to sharply change at a state boundary in the way government policies do.

This study demonstrates that commonly accepted policy levers to affect economic mobility can explain very little of the geographical variation in actual US mobility. This is true whether the policy involves school funding, social assistance and other welfare spending, or even marginal income tax rates. In addition to investigating the effects of specific policies, we introduce an omnibus test for state policy differences in total and again find that state level policies explain very little of the differences in economic mobility.

The remainder of the paper considers the implications of seemingly conflicting evidence. Small, natural experiments suggest that a number of policies might substantially improve economic mobility for the poor. Yet, there is little evidence that statewide implementation of similar programs has substantially improved mobility. While this gap between program evaluations and observed policy effects may be due to implementation problems or other unintended consequences, understanding why it occurs is a pressing issue in thinking about the future of economic mobility in the US. **DS**

Lefgren, Lars J., Jaren C. Pope and David P. Sims. "Contemporary State Policies and Intergenerational Income Mobility." *The Journal of Human Resources*, May 2020. doi: 10.3368/jhr.57.4.0717-8921R1

The Investment Network, Sectoral Comovement, and the Changing US Business Cycle

Christian vom Lehn

THE DEFINING FEATURE of business cycles is the comovement of production across different sectors of the economy. However, recent work has shown that the degree of sectoral comovement has fallen since the early 1980s, suggesting that sector-specific shocks have become more volatile relative to aggregate shocks. In our latest research, Wharton's Thomas Winberry and I studied the role of the investment network—the distribution of investment production and purchases across sectors—in propagating those sector-specific shocks and therefore understanding the changing nature of business cycles since the early 1980s.

In our research, we argued that the investment network plays an important role in propagating sector-specific shocks to macroeconomic aggregates. We made this argument in three main steps: first, we showed that the empirical investment network is dominated by four investment hubs that produce the majority of investment goods, are highly volatile at business cycle frequencies, and are strongly correlated with the aggregate cycle. Second, we embedded this concentrated network into a purposely simple multisector business cycle model and showed that shocks to investment hubs and their key suppliers have large effects on aggregate employment and drive down labor productivity. Third, we measured sector-level productivity shocks in the data, fed them into our model, and showed that shocks to investment hubs accounted for a large and increasing share of aggregate fluctuations. These fluctuations account for the decline in the cyclicality of aggregate labor productivity and other changes in business cycle patterns in the last forty years.

To pursue this topic further, a natural next step would be to add the rich set of nominal and real rigidities which the dynamic stochastic general equilibrium (DSGE) literature has argued are relevant for business cycle analysis. While we do not think that the role of the investment network as a propagation mechanism is specific to productivity shocks—other non-technology shocks may have similar effects—another next step would be to understand what drives the variation in our measured shocks and incorporate other shocks into the model. **JP**

vom Lehn, Christian and Thomas Winberry. "The Investment Network, Sectoral Comovement, and the Changing US Business Cycle." *The Quarterly Journal of Economics*, May 2021. doi: https://doi.org/10.1093/qje/qjab020

A Global Model of Migration and Poverty

Scott Bradford

GLOBALIZATION SINCE World War II has greatly expanded trade and international capital flows, but tight migration restrictions, especially in rich nations, persist. A few studies have analyzed the global welfare effects of today's migration barriers and have found they impose large economic losses on the world. This research also implies that developing nations suffer disproportionately but has not directly analyzed these barriers' global poverty effects. This article does this using a growth model based on Klein and Ventura (2007). Such a framework has two advantages: 1. Unlike most migration models, this one is dynamic, meaning that it captures capital accumulation and income paths over time, instead of examining a single snapshot. Most of migration's effects result from such accumulated changes, so accounting for them is important. 2. This framework allows for capital flows across nations, unlike most research in this area. Migration spurs capital flows, which can have important effects. I depart from the Klein and Ventura model by using a continuum of skills rather than only one or two types of labor: this allows us to analyze directly migration's poverty impact. Also, unlike Klein and Ventura, I account for migration costs.

The model simulations find that current migration restrictions reduce world GDP by more than 40 percent and raise global poverty by at least 67 percent. Thus, allowing more migration could be a very effective poverty reduction tool. (Other research has found that a large fraction of people escape poverty by migrating to rich nations.) On the other hand, these restrictions boost rich world workers' average incomes by 7 percent: free migration would thus cut their incomes substantially. (For comparison, the 2008–2010 recession cut rich world incomes by 4 percent.) Such costs render large-scale immigration opening in rich nations politically infeasible, but my research implies that, because current restrictions impose huge costs, even modest increases in rich nation immigration would bring large benefits. **SB**

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RESEARCHER, MENTOR, TEACHER, **FRIEND**

Dr. Ransom's Retirement

by Jessica Ransom McDowell

As a child, I remember fondly many trips walking down the curved hallway of the FOB to visit my dad in his office. His office was lined with books and old family photos, a piranha from his mission in Venezuela, and an Idaho potato plush that a student had made him (I suppose it was a gift because my dad is from Idaho).

During my freshman year of college at BYU, I spent even more hours in that office getting help on my Econ 110 homework—a task my dad never complained about, though I'm sure he wanted to. When I graduated from BYU, I got a job writing for the Economics Magazine and had the opportunity to share a wall with my dad in the office right next to his! Now, six years later, my role in the department has changed (among other things, we don't share a wall anymore), but I feel lucky to have the chance to see my dad daily in a professional capacity.

As he enters retirement this year, I have the unique opportunity to write about my dad's career and the impact he's had on his students and colleagues. I am undoubtedly biased in my esteem of him, but as I reached out to his former research assistants and coauthors, I realized that their experiences also illustrate what a thoughtful researcher, great mentor, and caring teacher he has been throughout his career.

CAREER AND RESEARCH

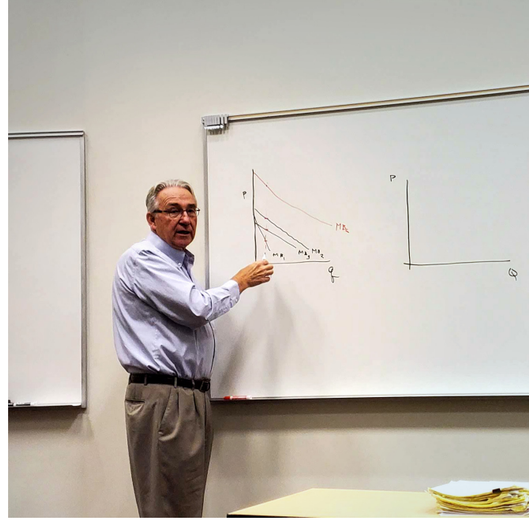
Dr. Michael Ransom graduated from Brigham Young University in 1977 and then went on to graduate school at Princeton University, where he earned his PhD in 1983. After graduate school, he worked as an assistant professor at the University of Arizona in Tucson before joining the faculty at BYU in 1988. Since joining BYU, he has been a visiting professor at Princeton University (2000–2001), served as chair of the Department of Economics (2005–2010), and held the Clayne L. Pope Professorship of Economics (2016–2021).

Beyond teaching, he has worked in various research roles, including as a Research Fellow at the Center for the Study of Labor (IZA) and a referee for more than fifty journals and agencies. Furthermore, he has served on the board of editors for the *American Economic Review, Economic Inquiry*, and *Contemporary Economic Policy* and on the Standing Committee for Oversight of Operations and Publishing for the American Economic Association (2011–2017). Most recently, he served as elected director of the Western Economic Association (2018–2021).

Dr. Ransom's research interests have varied throughout his career but have focused especially on the study of labor markets and why wages vary across different groups in a certain occupation. He has made important contributions to the analysis of labor markets in which employers may have some market power, called "monopsony power." Also, for the last several years, he has taught the Urban Economics course at BYU and studied the economics of light rail systems in the United States.

Facing page: Dr. Ransom talking to former student and research assistant Michael Brown.

Top to bottom: Dr. Ransom giving his last lecture at BYU; Dr. Ransom with his son Tyler Ransom, also an economist, at a conference in Vancouver, Canada; Dr. Ransom and his wife Laurie in a New York City subway station.



James McDonald, emeritus professor of BYU Economics, says of Dr. Ransom's research career, "I have known Mike for more than forty-five years as a student, research assistant, coauthor, colleague, department chair, and as a friend and walking partner. I've been impressed with him in each of these roles. He has continued to publish his research in top economics journals in the areas of income inequality [and] numerous economics topics arising in labor markets, transportation, and air pollution. He has remained actively involved in research throughout his career and has published his findings in the most prestigious economics journals."

Those who have coauthored with Dr. Ransom have especially noted how easy he is to work and collaborate with. Ronald Oaxaca, emeritus professor of economics at the University of Arizona and coauthor of Dr. Ransom, says, "It is a really distinct pleasure to collaborate with Mike on joint research. He brings such a host of valuable skills to the table. His thinking is innovative, his research methods are state of the art, and he is a genuinely nice person."

Aaron Phipps, assistant professor of economics at West Point, remembers working on a project with Dr. Ransom while he was an undergraduate. "Working with him was easy—he was patient and not overbearing. He didn't make me nervous before our meetings."

Dr. Ransom's coauthors and research assistants also observed his modest yet meticulous attitude toward research. PhD candidate at the University of Chicago and former research assistant Ivan Kwok recalls, "From working with him closely, I saw how rigorously he approaches his research, making sure he understands the data and paying attention to details. . . . He would take pleasure in the small progress we made and the new insights we learned along the way. Sometimes the research result may be different from what we expected, but he would remind me that it is what it is and that we need to be open to what we may learn in research. To me, he is always seeking truth as a researcher."

Dr. Oaxaca is likewise appreciative of Dr. Ransom's research approach. "I think everyone would agree that despite his accomplishments, Mike is a fairly modest person—not always a trait for which academic economists are noted. On one or two occasions, Mike and I published a paper that Mike believed at the time made a definite though modest contribution; however, he was astonished at the attention the paper received after publication. In our collaborations, I was always impressed by how Mike could coax a confession from the data. In less deft hands, it would have been a forced confession."

MENTORSHIP

Dr. Ransom has been a mentor to many students over the years, and the small interactions he's had with his students are the ones that stand out the most to them.

Ivan Kwok remembers his first contact with Dr. Ransom when he took Econ 388 (Econometrics). The class size was small, which allowed for more interactions with Dr. Ransom, especially when Ivan was preparing his 388 data project. "[Dr. Ransom] was generous with his time and would ask us to meet with him one-on-one to discuss ideas and give us feedback. I remember he suggested an econometric model which was outside the class syllabus but was more suitable for my project. Instead of just giving me the Stata command to run the regressions, he took the time to compare the model to those we learned in class and made sure I understood how to interpret the results."

Adam Moore, another former RA and current JD Candidate at BYU Law School, also remembers how Dr. Ransom helped him truly understand the research they worked on together. Dr. Ransom gave Adam opportunities to take initiative and work out research problems on his own. "Dr. Ransom's responses to my efforts on these tasks (and occasional blunders) exemplified kindness and patience. He responded with appreciation and by giving me additional opportunities to continue learning new concepts. Over the months, he helped me gain confidence in my ability to learn—one of the most valuable lessons learned during my undergraduate education."

Gordon Dahl, Professor of Economics at the University of California, San Diego, who is a coauthor of Dr. Ransom and a former RA, remembers working on a paper for a class based on Dr. Ransom's 1987 paper on family labor supply. "His paper showed me how statistical modeling could be used to answer interesting questions, and I became hooked on labor economics as a field. Mike's mentoring was a key reason I chose to attend Princeton for graduate school (like Mike) and to become a labor economist (like Mike)."

CARING TEACHER

Throughout his career, Dr. Ransom has shown care for his students and their personal lives. Lane Delano, a former student, remembers how Dr. Ransom helped him while he was applying for graduate school. "I had made a bit of an academic mistake and got one poor grade. He wrote a letter to the schools that helped explain this was just a blip on the radar and not reflective of my abilities and intelligence. Without that letter who knows if I would have been accepted?"

Aaron Phipps has a similar story: "I remember when I was applying to graduate programs how he stood up for me when talking about where I fit in among the other applicants from BYU. While others have believed in my capacity, I really feel like [he] was the first person to make me believe that I had something to offer in the field."

While working as a teaching assistant for Dr. Ransom, Adam Moore was impressed by the concern he showed for all his students. "Every meeting we had, he would ask me how I was doing in my other classes and otherwise showed genuine interest in how I was doing (it was also fun to talk about fishing with him). . . . When I met with him as a TA to discuss students' tests, he showed genuine concern for how to help those students who struggled with the material. I could tell that he really cares about his students' success."

Ivan Kwok explains, "Outside class and work, Dr. Ransom is also a great friend who takes interests in other aspects of my life. . . . I still receive emails from him sending his care and encouragement from time to time. I am very grateful to have met him in my college years."

Dr. Ransom will be missed, and his influence will be felt long after he's gone. Gordon Dahl summarizes what many have experienced while interacting with Dr. Ransom: "The most important influence Mike has had on my life has been his example. He demonstrated that top-quality research and commitment to the gospel can go hand in hand. He is devoted to scholarship, BYU, the Church, and his family. I recall several times throughout my career where we talked about each of these things. Mike is exactly the type of person that exemplifies the best BYU has to offer." **JM**

Entering retirement, Dr. Ransom looks forward to more time spent fly-fishing, traveling with his wife, and visiting with his eight grandchildren. He is pictured below with his grandson Noah at Manila Creek Park Pond.

THE PARABLE OF THE PROOF

by Dr. John Stovall

Several years ago, I was working on proving a particularly difficult theorem. After struggling with the proof for a while, a thought came to me that I should pray to ask for help. So, I knelt down in my office and prayed vocally for assistance in completing the proof. After the prayer, I had a flash of inspiration that guided me past the part of the proof giving me trouble. That flash of inspiration allowed me to finish the proof, which ultimately led to a publication in an excellent economic theory journal.[1] I have no doubt that God answered my prayer through direct inspiration.

I have told this story many times to illustrate how God can help us by providing personal revelation through prayer. However, like the parables of Jesus, I believe this story holds deeper lessons. Indeed, many months later I reflected on this experience, and I realized that it taught me things about my own testimony. Like a proof, a testimony is an explanation for why you think something is true. A proof is made up of logical reasoning, each step deriving its strength from the one that precedes it. A testimony is made up of spiritual experiences, each one made stronger by those that precede it. With this analogy in mind, my story of the mathematical proof reveals additional lessons about developing a testimony.

However, the version of the story that I told above is simplified. It removes many messy details that were not necessary when the purpose of the story is to tell a lesson about how God answers prayers. But many of these details can help further this analogy of a testimony. Let me fill in some of the details, and in the process, point out some other lessons this story taught me about developing a testimony.

Several years ago, I was working on proving a particularly difficult theorem. After struggling with the proof for a while...

In fact, I had been struggling with just one step of the proof for many months, and I was not making any progress. Many times, I found myself exploring one possible solution only to realize that I had ruled out that approach weeks earlier as unfruitful. Weeks of work, it seemed, were completely wasted. I began to question whether my result was true and searched for counterexamples to convince myself that it was not true.[2] But I was not successful at constructing a counterexample. And so, I was stuck—unable to prove my theorem was true and unable to prove my theorem was false.[3]

From this, I learned that testimonies do not drop out of the sky fully formed. It takes work to create "good ground" so that our seeds of faith do not wither away due to lack of roots or competing "thorns."[4] At times, this work may even seem unproductive, and we may be tempted to give up. But God promises us that this work will not be in vain if we diligently follow the next step.

...a thought came to me that I should pray to ask for help. So, I knelt down in my office and prayed vocally for assistance in completing the proof.

The thought that I should pray for assistance came to me many times, but each time I hastily pushed it out of my mind. I had been thinking about this proof for so long that I stubbornly thought that God could not help me understand it any better than I already did. However, I eventually realized that this was not just an idle thought but a prompting from the Spirit. My mind turned to Joseph Smith and his search for truth. "If any of you lack wisdom, let him ask of God, that giveth to all men liberally."[5] I was certainly looking for wisdom, and I had nothing to lose except my pride. And so, one morning before beginning work, I decided to pray.

The lesson here is that pride prevents us from taking the steps needed to grow our testimony. Whether it is approaching God in prayer or reading the scriptures or simply living in accordance with the Gospel, we must take steps of faith before we can receive a spiritual confirmation. Exercising faith requires humility.[6]

After the prayer, I had a flash of inspiration that guided me past the part of the proof giving me trouble.

Relative to the months of struggle I had experienced up to this point, one could describe the inspiration I received as a "flash." However, the inspiration did not come instantaneously, but rather over the course of hours that day as I worked. In addition, the inspiration that came was not unrecognizable to me. It built on the work and understanding I had developed up to that point. Nevertheless, the clarity that came to me that day felt like it came from heaven, and I knew that God had answered my prayer.

This taught me that inspiration often does not come all at once but is instead a process: "Line upon line, precept upon precept."[7] God will build on our own understanding.

That flash of inspiration allowed me to finish the proof, which ultimately led to a publication in an excellent economic theory journal. I have no doubt that God answered my prayer through direct inspiration.

I did not yet have a completed proof, but rather an outline that, when all the details were filled in, would yield a completed proof. I still had a lot of work ahead of me, but I was optimistic that I would be able to finish. However, this optimism did not stay with me. In the weeks following my prayer, I continued to work on the proof and fill in the important details. Many times, I got stuck again. I had difficulty making the logical connections I needed, and I doubted the inspiration that I had received earlier. Maybe this theorem isn't true, I thought to myself. Maybe that wasn't inspiration that I received. Maybe I'm right back to where I was before—stuck. However, I was able to get past each of these moments. The error was never in the inspiration I had received, but rather in my own understanding.

This, to me, is the most important lesson I learned. The spiritual confirmation is not the end of the journey, but one step in the process of developing a testimony. You will, at times, doubt the inspiration you received. Do I really know this is true? you will ask yourself. This suggests that the process needs to be repeated. If you endure and continue to exercise faith, you will get past these moments. You will realize that what you knew to be true before has been true all along. And this will make your conviction stronger.

There is one important difference between my pursuit to prove this theorem and our pursuit to develop a testimony. I eventually was able to finish the proof and get my paper published. However, developing a testimony is not something that is going to end in this life. Enduring to the end means continuing this process of drawing closer to God through righteous living, humility, faith, and patience. If we do, then our efforts will prove worth it. **JS**

Q.E.T – Quod erat testatum[8]

1. Stovall, John E. (2018), "Temptation with uncertain normative preference." ***Theoretical Economics***, 13, 145–174. **2.** A counterexample is an object that satisfies the assumptions of your theorem, but which contradicts your (hoped-for) conclusion. This would demonstrate that your theorem is false since the assumptions do not guarantee the conclusion. **3.** Andrew Wiles, who is best known for proving Fermat's Last Theorem, compared the process of doing mathematics to exploring a dark mansion: "You go into the first room and it's dark, completely dark. You stumble around, bumping into the furniture. Gradually, you learn where each piece of furniture is. And finally, after six months or so, you find the light switch and turn it on. Suddenly, it's all illuminated, and you can see exactly where you were. Then you enter the next dark room..." **4.** See the Parable of the Sower in Luke 8. **5.** James 1:5. It is interesting to note that James's promise applies to wisdom generally. There is no requirement that the deficiency in wisdom be about spiritual matters. **6.** Paradoxically, pride can make it harder to do the simpler acts of faith. When wandering in the wilderness, the Israelites were stricken with poisonous snakes. The Lord instructed Moses to attach a snake to a pole and declared that anyone who looked upon the pole would be healed. But some would not look. "[B]ecause of the simpleness of the way, or the easiness of it, there were many who perished" (1 Nephi 17:41). In another Old Testament story, Naaman was told by Elisha to wash in the River Jordan seven times to be cured of leprosy. Naaman initially resisted, but was told by his servants, "If the prophet had bid thee do some great thing, wouldest thou not have done it? how much rather then, when he saith to thee, Wash, and be clean?" (2 Kings 5:13). **7.** 2 Nephi 28:30; D&C 98:12. **8.** This is a play on Q.E.D., or *quod erat demonstradum*, which is traditionally placed at the end of a proof.

Joseph Woodbury

"Be open to whatever life throws at you, because it probably will throw at you something you weren't expecting."

JOSEPH WOODBURY received a full-time offer from Bain & Company after he completed his junior-year internship. It was a no-brainer. "I felt like I'd found my dream job," Joseph says. He accepted the offer and started his senior year in the BYU Economics program. He had no idea that one of his friends at BYU was about to propose a business idea that would change the course of both of their lives.

Over the summer, Joseph's good friend Preston Alder went to South America for a humanitarian project and had struggled to find storage for his belongings while he was away. He and his wife ended up storing their things at a friend's house, which was easier, cheaper, and safer than using a storage unit. Preston shared his story with Joseph, and they started building a platform for community members to rent out their extra storage space. Along with a third cofounder from the University of Utah, they launched their business called Neighbor during their senior year. Since being founded in 2017, Neighbor has grown into a nationally recognized storage business with users in all fifty states.

As cofounder and CEO of Neighbor, Joseph wears "a lot of different hats." He manages the office, investor relations, HR, finances, and more. But his favorite part of his job is hiring. "That process is probably what brings me the most satisfaction," he says. "I love building a great team. I want to work with people who are passionate about what they do and dedicated to their craft." Joseph prioritizes recruiting people who are not only "best in class" but who also fit the culture of Neighbor. "One of our core values is hard work. . . . We want to hire people for whom hard work is not a means to an end, but it is the end. . . . We like working with people who enjoy the journey, not just the destination."

Joseph uses his economics background on a daily basis in his work, from interpreting data to running A/B tests and multivariate regressions. But in the broader sense, he feels that his econ degree is valuable because it taught him to power through the challenges of building a startup. He offers this advice to current econ students and fellow alumni: "Live your life in such a way that you can rely on the Spirit and be open to change. Be open to whatever life throws at you, because it probably will throw at you something you weren't expecting."

For Joseph, that has certainly been the case; back when he received that offer from Bain, he was "dead set" on a consulting career. But since then, he has realized that cofounding Neighbor is the best career choice he never expected to make, and he has no plans to deviate from that path any time soon. Twenty-five years from now, he hopes he'll still be working at Neighbor, doing the same thing he's doing today—hiring talented team members and building his business. "We're on our way to becoming the largest storage company in the world, but we have plans and visions beyond that," he says. "I think twenty-five years from now we won't be known as a storage company, even though that will still be a core part of our business." **JP**

"Most people can't begin to understand the daily battles you fight to make it through each day. But keep fighting even though it seems impossible."

Melissa Grant

WHEN MELISSA GRANT was relatively new at BYU, she had a roommate who was anxious about taking Econ 110 for a general requirement. Melissa kindly volunteered to take the class with her and quickly fell in love with the course material. She was intrigued by the combination of creativity, problem-solving, human behavior, and "hard core math" in the class. Later on, Melissa took a 200-level econ course taught by Del Gardner. Although she kept a low profile in class, she had excellent test scores that drew Dr. Gardner's notice. He ended up recruiting Melissa as his research assistant—an opportunity that led to a mentorship and many of Melissa's fond memories of her time at BYU.

After graduating in December 1992, Melissa worked at Fidelity Investments in Salt Lake City before applying to graduate school. She chose the University of Rochester in New York because their MBA program was very econ-focused and had a great international representation of students. Being in New York led Melissa to high-profile companies like UBS, where she worked as an equity analyst post-grad, and later Deloitte, where she worked for approximately eight years in Valuation Services, Corporate Development, and other global roles. Melissa's resume also includes experience working as managing director for a legal outsourcing company, an engagement manager at Cicero Group in Salt Lake City, and an independent consultant.

Melissa has been bitten by the "entrepreneurial bug" several times in her career and has started a couple companies in her lifetime: a Chinese financial advisory firm in 2007 and more recently, in 2019, a company called Lives Unencumbered, Inc. She is extremely passionate about Lives Unencumbered because its purpose is to revolutionize the path of treatment for mental health issues. Melissa herself has suffered from treatment-resistant depression for over a decade and knows firsthand how devastating mental health challenges can be.

Her experience with depression has shaped much of Melissa's life and career over the last ten years, and she's willing to share her experiences in the hopes of helping others who are struggling. "I have an incredible amount of compassion and empathy for people [with mental health issues], and that's why I'm willing to talk about it. Because someone's got to start talking about it." She acknowledges that, though many celebrities are making noise about mental health and companies are recognizing the need for mental health resources for employees, there is still so much that needs to be done to eradicate the stigma surrounding mental health in the US.

Currently, Melissa is working as a freelance consultant doing M&A work for a European company and taking a break from her business to work through her depression, but she's excited for the day she feels well enough to continue the important work of Lives Unencumbered. She says, "My message to others out there who are hiding [depression] or trying to function, whether they're a husband, whether they're a wife, whether they're a father, whether they're a mother, whether they're a sibling, whether they're a student, whatever it is: I feel it. I know what you're going through. And it's really hard, and most people can't begin to understand the daily battles you fight to make it through each day. But keep fighting even though it seems impossible. Don't let it define you, your worth, or your standing with God." **JP**

Megan Nelson White

> "I am so grateful for every person who has ever positively impacted my life through words. I hope to do the same."

MEGAN NELSON WHITE has wanted to be a lawyer since she was five years old, when the O.J. Simpson case was unfolding. "Both of my grandparents were big fans of [prosecutor] Marcia Clark," Megan says. "For some reason, when I saw her on TV, I knew that I wanted to grow up and work in a courtroom, like her."

When she first came to BYU, Megan's career plans changed temporarily; it was the time of the Great Recession, and she worried about accumulating debt in law school and struggling to pay it off later. Fortunately, she had met a few BYU Economics alumni when she was in high school who had encouraged her to study economics because it combined her love of social science with her skills at math. "I realized that there were a lot of interesting job opportunities for economics majors," Megan says. She decided to pursue an econ degree.

When Megan graduated from BYU in 2009, she decided to get some work experience before committing to graduate school. She landed a job as a financial analyst for Intel, and although she appreciated her time working for a large company, she quickly learned that a career in finance wasn't where she saw herself long-term. **"**It was apparent to me . . . that I needed to return to my dream of going to law school," she says, and she did. She earned her JD at Arizona State University in 2015.

Megan spent the next couple of years working at Fabian VanCott, then moved to Kunzler Bean & Adamson. She's been at KB&A since February 2019 and loves working there. In her own words, "One of my favorite things about my career is that it gives me constant opportunities to perfect the art of communicating. As a litigator, much of my work boils down to persuasively applying facts to the law." She acknowledges that litigation can be draining for all parties involved, so she feels most successful when she helps her clients to "quickly and efficiently" reach resolutions.

Reflecting on her time at BYU, Megan can recall one day at the BYU Bookstore when a cashier asked her, "If there were one thing you could do, and you knew you would not fail at that thing, what would you do?" At the time, the question felt invasive, but Megan has considered it often over the years. She has determined that in her career, she never wants to turn down an opportunity "because of a fear of failure." Along those same lines, she encourages current econ students not to turn down extracurricular opportunities because they're afraid of diverting attention away from their studies.

Another life lesson Megan has learned is that "there is power in words." She remembers that during her sophomore year at BYU, she received a kind note from a classmate who noticed when she felt discouraged. "The warmth and sincerity of her message spoke to my soul," Megan says. "I will never forget that experience." Several years later, in one of the most challenging times of her career, she received a Priesthood blessing from her bishop. She still remembers some of the specific blessings and counsel she was given. Megan expresses, "I am so grateful for every person who has ever positively impacted my life through words. I hope to do the same." **JP**

> "Great job on choosing economics as a major. . . . Stay with it, even when it's hard."

Dan Burton

WHEN DAN BURTON returned to BYU in 1994 after serving a mission for the Church of Jesus Christ of Latter-day Saints, he planned on becoming a doctor. However, he quickly found that he hated his pre-med classes and was drawn to Econ 110, which he was taking to fulfill a general requirement. In Dan's words, "I fell in love with economics and understanding the why behind the way that business works." He made "a really meaningful personal pivot" and graduated with his bachelor's in economics in 1997.

Dan started his career in strategy consulting at Boston Consulting Group, a move that solidified his fascination with the inner workings of business strategy. His next step was Harvard Business School, where he earned his MBA in 2001. He says of his time there, "It was such a great experience for me to keep honing and developing those strategy skills and capabilities." He applied his skills directly in his next career roles, both as Senior Strategist and Marketing Manager at Hewlett Packard and as Senior Director of the Corporate Strategy Group at Micron Technology. Dan found meaning and fulfillment in both general management and company-level strategy, but after more than a decade in large technology companies, he decided to "try to apply what [he] learned in a smaller setting, in an entrepreneurial setting." He cofounded a small investment firm, HB Ventures, with his former boss from Hewlett Packard.

HB Ventures was the first firm to invest in a new company called Health Catalyst, which used data analytics technology to improve health care. Dan saw Health Catalyst as a "molding together of . . . great strategy capabilities and great execution." Not long after, Sequoia Capital also became interested in investing in the company and appointed Dan as the CEO of Health Catalyst as part of their investment deal. It's been ten years since then, and Health Catalyst has grown from a small company to a publicly traded company worth more than $2 billion and supporting over 100 million patients in health care.

One of the highlights of Dan's career was the day Health Catalyst went public in 2019. The company invited early contributors—including investors, clients, and employees—to join them in New York City for the occasion. "We ended up with actually the largest group that Nasdaq had ever seen," Dan says. "There were colleagues and teammates there that had contributed so significantly to our company reaching that milestone. It was truly a moment of celebration, and it was a highlight for my entire career, absolutely."

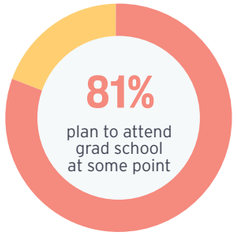
Despite his career success, the center of Dan's life is his family and his faith. He expresses, "Work-related items have an amazing ability to always seem really urgent and to crowd out other priorities. . . . Trying to get the priorities right and in the right balance is incredibly hard to do, but it's worth the effort." Achieving multifaceted success requires a strategic approach to life, something that Dan learned from his training in the BYU Econ program. He urges students to use their time at BYU to "develop a great strategy for your life" and to learn the principles of great team work. Lastly, Dan says, "Great job on choosing economics as a major. . . . Stay with it, even when it's hard." **JP**

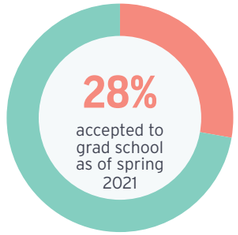
CLASS STATS 2021

GRAD SCHOOL

SCHOOLS

- Arizona College of Optometry at Midwestern University
- Boston College
- Brigham Young University
- BYU Law School
- BYU Marriott School
- Georgetown Law School
- Georgetown University
- London School of Economics
- Noorda College of Osteopathic Medicine
- University of California, Berkeley
- University of North Carolina
- University of Pennsylvania Law School
- University of South Carolina
- University of Southern California
- University of Utah
- University of Utah School of Medicine
- University of Virginia
- University of Wisconsin, La Crosse





PROGRAMS

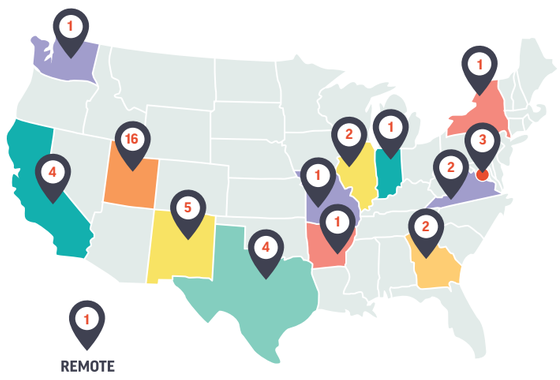
- Econ PhD
- Law
- MBA
- Medical
- MHA
- MPP
- MS of Information Systems
- Undecided
- Other

CAREERS

76% will work full-time following graduation

62% had a full-time job offer as of spring 2021

JOB LOCATIONS



COMPANIES

- Aetna
- Amazon
- Auto-Owners Insurance
- Awardco
- Axon
- Bank of America
- Bank of Utah
- Blip Billboards
- Blue Raven Solar
- Boston Consulting Group
- Capital One
- Charles River Associates
- The University of Chicago Booth School of Business
- Citi
- Cornerstone Research
- Cummins Inc.
- Deloitte
- Economics Partners
- Energy Policy Institute at the University of Chicago
- Federal Reserve Board
- Fidelity Investments
- Fifth Partners
- Focus Funnels
- Goldman Sachs
- Kauffman Foundation
- McKinsey & Company
- The Office of Senator Mitt Romney
- OneTel Security
- Piper Sandler
- Property Reserve, Inc.
- PwC
- Qualtrics
- Stanford University
- US Congress
- US Department of Justice
- Venture Validator
- Walmart

STUDENT EXPERIENCE

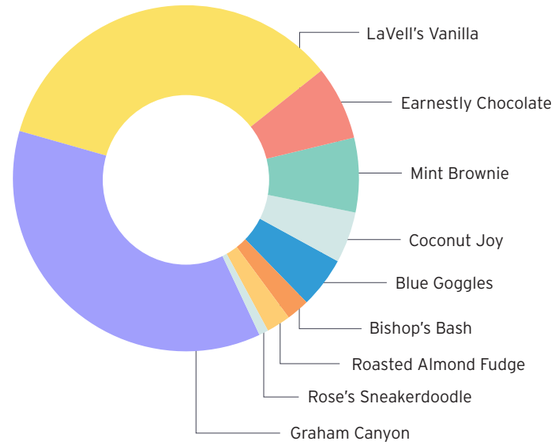
TOP 5 FAVORITE ECON CLASSES BY STUDENT VOTE

1. Intermediate Macroeconomics (381)
2. Machine Learning for Economists (484)
3. Intermediate Microeconomic Theory 2 (382)
4. Economic Development (431)
5. Behavioral Economics (442)

TOP 5 MOST CHALLENGING ECON CLASSES BY STUDENT VOTE

1. Introduction to Econometrics (388)
2. Advanced Econometrics (588)
3. Intermediate Microeconomic Theory 2 (382)
4. Statistics for Economists (378)
5. Machine Learning for Economists (484)

FAVORITE BYU ICE CREAM FLAVOR



ADVICE

Many data analytics jobs—which we are mostly qualified for—recommend or require knowledge in Python or R. I wish I had gone to the ESA club trainings on those languages and had more exposure to them.

Don't get too caught up in grades; make sure to stay focused on the friendships you are developing as well. Ten years from now you won't remember the details of the things that we studied, but you will cherish the friendships you make here for the rest of your life. When deciding whether or not to do something social or have a meaningful conversation or study for a few extra hours, make sure to really weigh the costs and benefits.

Find a study group and build relationships early on. Having peers in econ will be your lifeline. The 400 levels are awesome. Don't quit after the core 300 classes.

Economics teaches you how to think and to problem solve. . . . Approach new econ classes with the mindset of "how does this make me think differently or challenge the way I currently think?" and you will learn lots.

You need to think about what you want to do for a career early on. Join clubs, network, and apply for internships in your sophomore year. This makes it much easier to find a job later on.

Go for internships as early as possible and get as many internships as possible if you think you might want to go into industry. If you want to go to graduate school, start as a research assistant as soon as possible. Demonstrate that you are competent and take 388 and 588 out of order to start research earlier than usual (worked well for me).

The major is amazing! Really get to know your professors. The Econ Department hires some of the brightest, most intelligent people I've had the pleasure of knowing and they will be a great resource to your undergraduate career and success.

Don't avoid a class/professor just because you hear it is hard! Those have been my most rewarding learning experiences.

The framework, tools, and models of economics will allow you to do a lot of good in the world. So please use what you learn to help others.

Don't limit yourself! You can do anything with a BYU Econ major. Find what you are passionate about and leverage the skills you have learned.

Get involved! Find research opportunities, become a member of a club, work with your professor and peers.

Student Spotlights

ZAC POND

AS A SALT LAKE CITY native, Zac Pond has always been a strong advocate for the outdoors. Having spent much of the last four years rock climbing, Zac is also an ardent conservationist. After taking Econ 110 early on, he found exactly what he was looking for: "a quantitative approach to solving environmental problems." He was also "drawn to the idea that you could use mathematical models to inform optimal decision making." Zac majored in both economics and mathematics at BYU.

Zac has been to most of the major climbing areas in the West, even making the fifteen-hour trek to Squamish, British Columbia for several climbs. For Zac, his hunger for climbing drives his interest in economics and environmental conservation. He says, "Once we started talking about the application of economics to environmental issues, I was sold."

When asked what he learned about himself through studying economics, Zac says, "I've learned that I value rational decision making, efficiency, and irrefutable logic." While at BYU, Zac worked as an RA for both Dr. Arden Pope and Dr. Brigham Frandsen. With Dr. Pope, he worked on a paper researching the most harmful air pollutants to humans. With Dr. Frandsen, Zac worked on a variety of projects involving coding and implementation packages for new methods of estimation and inference. Zac recommends, "For anyone hoping to go to econ graduate school, . . . start early by finding an RA position doing research that interests you." These two research jobs were the highlight of Zac's undergraduate years.

Zac started at the University of California, Berkeley this fall as a student in the Agricultural and Resource Economics program. He says of his future goals, "I hope to make policy-relevant contributions to research in the intersection of environmental and development economics." After finishing school, Zac is considering working for an environmental non-profit think tank like Resources for the Future. HN

MARY JANE MacARTHUR

LIKE MANY econ majors, Mary Jane MacArthur wasn't sure what she wanted to study when starting at BYU. However, after taking Econ 110 from Professor Kearl to fulfill the American Heritage requirement, she was sold. Originally from Springfield, Virginia, Mary has loved the combination of math and social sciences found in economics. In addition to her econ major, Mary minored in international development, mathematics, and music.

Mary loved Econ 110 so much that she went on to be a 110 TA for four semesters. She loved teaching introductory topics and seeing students get excited about economics for the first time. She also worked as a research assistant in the Record Linking Lab, where she learned about family history and important policies in education and nutrition. Through an internship with the Washington International Trade Association in Washington D.C., Mary spent time with government officials, influential executives, and academics discussing various trade and economic policies.

The highlight of Mary's undergrad was her time spent in Rwanda on a Kennedy Center internship. While there, she learned about international development and volunteered with the Nyamirambo Women's Center. She especially enjoyed the Rwandan holiday, Umuganda, a day devoted solely to community service. Mary also continued to develop her love for music at BYU by participating in multiple orchestras and choirs and even recently learned to play the organ and guitar.

When asked to describe what she has learned about herself through her study of economics, Mary says, "Economics has taught me a lot about how I make decisions . . . [and] how my preferences and decisions are sometimes biased or irrational. This is so valuable to know, because sometimes it is pretty simple to help myself out by slightly changing the way that I think!" This fall, Mary is starting a Master of Public Policy program with a focus on urban economics. With her training and education, she hopes to one day help make cities more efficient and sustainable. HN

RAE SCHLUETER

RAE SCHLUETER hails from Dubuque, Iowa. She says, "I chose economics as a way to open future career paths. At that point in my studies I still had no idea what I actually wanted to do or be. Also, I thought economics would be a good major for learning a little more about how the world 'worked,' which was very appealing to me." In addition to majoring in economics and Japanese, Rae also received a minor in linguistics.

An avid member of the BYU Roller Skating club, Rae loved meeting new people throughout her undergrad. She also loved all the different opening socials at the beginning of each semester, saying, "It was a lot of fun to learn about different things happening on campus and it was a great way to get free food." One year she even went to a different event every day for the first week of class and filled up with enough free pizza and hot dogs to leave her feeling sick.

When recounting what she learned about herself through her study of economics, Rae says, "I've learned that I don't want to do research or number crunching! Rather, I really enjoyed the rational thinking that was necessary for understanding the economic theory taught in many of the econ classes." She spent time working with students as a TA in both the Economics and Japanese Departments and recommends all students work with their TAs to make the most of their time in the major. She also spent a summer working as a Research Assistant in the Record Linking Lab with Dr. Price.

One of Rae's suggestions for current and future econ students is to work with groups. She says, "Work with the people sitting around you or go to the TA labs and work with people who are there. This is such a good way to make friends within your major, and as an added bonus, you learn the material better when you have people to talk to." While attending University of Pennsylvania Law School this fall, Rae hopes to continue to meet new people and experience new cultures. She is currently planning to study international law. HN

BRADY EARLEY

BRADY EARLEY, originally from Riverton, Utah, loved math and political science in high school, so studying economics at BYU was a perfect fit. Though he declared his major as a freshman, it wasn't until he took Econ 110 with Professor Kearl that he was truly converted. Brady also majored in American studies with minors in Mandarin Chinese and legal studies.

A member of the BYU track and cross country teams from 2016 to 2019, Brady says, "My day just doesn't feel complete until I've gone for a run." In 2018, Brady even had the opportunity to travel with the cross country team to the NCAA Cross Country Championship to cheer on some of his teammates. That same year, Brady also attended the Economics at Cambridge program. He describes the experience as "a one-month intensive course on economics that challenged [him] to see how economics is a language that transfers well across cultures."

Brady loved his econ classes at BYU, specifically Econ 388 and Econ 488, as well as the opportunities he had to work closely with professors. "I really felt it challenged me to develop a new way of thinking," he says. Brady used the skills he learned in his econ classes to help professors in both the BYU Law School and Economics Department write articles and analyze datasets.

For new economics majors, Brady recommends, "Go to office hours and talk with your professors. It doesn't matter if you're struggling or doing really well in the course, . . . going to office hours has always enhanced my educational experience."

Brady started at the University of Chicago Law School this fall. He plans to pursue a career in academia and dreams of teaching at a university someday. Of his future, Brady says, "I hope my academic career can be broad enough to contribute meaningful research on law, religion, and economics while helping students succeed and find their own passion." HN

PODCASTS & PRIZES | essay contest winners

In October of 2020, the Economics Department hosted an elective mini course for students taking Econ 110. The course was designed to help students interact with economics in a new way. As they listened to the eight NPR Planet Money podcasts that formed the course curriculum, students were challenged to consider the real-life application of basic economic principles. At the end of the mini course, the department held an essay competition for students to share how Planet Money and Econ 110 have changed the way they see the world. The first, second, and third place essayists won cash and the opportunity to be featured here in the Economics Magazine.

Without further ado, here are the top three essays from the competition!

1st Place "Tabletop Economics" by Johnson Hansen

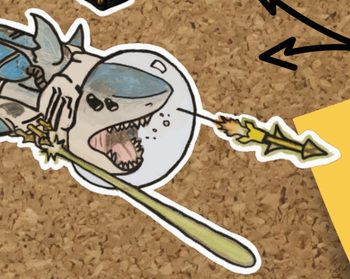
Upon joining a group chat with my coworkers, one of them immediately nicknamed me "Code Man." Clearly, they recognized my love of puzzles and games. Throughout high school, if I wanted to hang out with peers, I would host a game night. My favorite games are strategy board games. I love thinking through a situation, utilizing my resources carefully, and then rolling the dice to test my plan. After enrolling in Econ 110 and taking the Planet Money mini course, I realized what excites me about board games is actually just economics.

Board games are self-contained economic models playing out on your dining room table. Econ 110 defines economics as the study of choices made under conditions of scarcity. Scarcity makes strategy games intriguing, challenging, and ultimately fun. Many games limit the number of cards you can hold, actions you can take, or even the amount of time for each turn. Rules force players to analyze how to effectively use the scarce resources they have at their disposal. The player who makes the best use of their cards, items, or actions (and who gets a little lucky) ends up winning the game and bragging rights.

The scarcity enforced by the rulebooks of tabletop games allows other economic principles to be explored. Opportunity costs are critical to any serious gamer's thought process. In *Settlers of Catan*, if you use your resources to build a road, you may not be able to build a settlement. However, if you build the settlement instead of the road, your opponent might reach a more desirable area of the map before you do. These and other opportunity costs must be considered before spending valuable resources. *Go Fish* requires players to consider the gains from trade while they deplete a common resource, the draw pile. Every strategy game is about profit maximization. In *Betrayal at the House on the Hill*, the heroes must make the most progress with as little cost as possible. One costly decision could lead to an unprofitable turn and an overall loss of the game. Every board game is unique, but all of them require players to think like an economist.

During the COVID-19 pandemic, my cousin and I started creating our own board game. If playing a board game is a short study of economics, then designing a board game is getting your degree. My cousin and I have spent countless hours determining what rules should be added and which rules should be taken away. Unexpected trade-offs and opportunity costs arise with every rule change. Ultimately, we have decided to prioritize fun. If a new addition to the game will sacrifice utility, then it isn't worth implementing.

My study of economics this semester has improved my board game strategies as a player and a designer. It has also helped me confidently face real-world financial decisions. Economics is just one big, complex strategy game, and that means making decisions—even with limited resources—should be a fun experience. **JH**



Figures from Johnson's original board game

2nd Place "The Side Hustle" by Laura Dean

Economics has tainted everything I do. When I toss peanut butter and jelly into my grocery cart, I think about complementary goods. When I put a mask on, I think about positive externalities. When I can't find a parking spot, I say curses about scarcity. But the most remarkable effect has been my application of the laws of supply and demand.

I recently started a little side hustle. Not long ago, I went through the process of trying to sell my single student housing contract due to my unexpected marriage (long story) and trying to sell while also planning a wedding was a real pain. I ended up lowering the price of my contract to get rid of it faster because I didn't want to waste any more time. When I finally sold it and things died down, the thought came to me: I bet there's a market for people like me who don't want to worry about selling their contract while also trying to plan a wedding, move out, etc. I could be an intermediary that helps connect sellers with interested buyers.

I tested the waters to see if there was a demand. I posted on various Facebook groups about my services and waited to see if anyone would show interest, partly expecting to be disappointed. To my surprise and pleasure, my theory had been right. Several people reached out asking for help.

Now I faced another question: what would my price be? What was the point that would both sound reasonable to demanders and be worth my time? I set my price and some people rejected it, but others were still willing. I posted their listings on Facebook contract sell groups and waited for the inquiries to flood my inbox.

That wasn't the result, however. There was one major setback: due to COVID-19, BYU was scheduled to go completely remote after Thanksgiving Break. Lots of students were planning to move home after that point, and they didn't want to pay for an apartment they wouldn't be living in. That meant the supply of student housing was very high right then, making it difficult for me to sell.

Furthermore, it was the middle of a semester, so very few people were trying to move into Provo student housing. That meant demand for student housing was low. My listing faded into the void of countless other students desperate to relinquish their rent obligation. It took a lot more work than anticipated to find people that were looking to buy.

But there was a good flipside to this too. Demand for my services was extra high since everyone needed help selling. Since demand was high, I could charge more. I decided to raise my prices and watch the dough roll in. **LD**

3rd Place

"The Lens of Economics: Extreme Couponing" by Bryan Frandsen

The experience that I have had with Econ 110 and the Planet Money podcast has been eye-opening for me, at least in terms of a different way of looking at the world. Initially, the concepts of "thinking at the margin" and opportunity cost did not really stick with me. I understood factually what the terms meant, but I was confused as to their application. However, as I have grown more accustomed to thinking like an economist, the power of these concepts has really come into fruition for me. I have been able to apply these economic concepts to my dating life, to my schoolwork, and, in my favorite example, to my spending habits.

There is a long-standing argument between one of my roommates and me. He could be described as an "extreme couponer." He is always looking for deals on food, groceries, and whatever else, and he is the type to drive ten extra minutes to save a couple cents on gas. He spends a lot of time working on these ways to save money by searching out deals, driving to different locations, and so forth. Additionally, his opportunity cost is sometimes quite high at a restaurant, for example, because sometimes he needs to change his order from what he originally would have gotten so that it works with his coupon. That means that he misses out on the item that he really wanted in the first place. I always poked fun at him for these habits because I always considered them a waste of time.

Now, with my newfound economic knowledge, I can tell him why exactly his costs are outweighing his benefits here. My favorite time when this happened (inspired by a comic shared by my economics professor, Dr. Platt) was when he insisted on driving to a different gas station because gas was one or two cents per gallon cheaper there. I calculated the time it took us to travel there and combined it with the amount that he saved and found that he was working for around sixty cents an hour in that scenario. He had never thought of it that way, and the lens of economic thinking opened a different perspective for us. However, as of yet, I am unsuccessful in turning him from his couponing ways, no matter how many cost-benefit analyses and opportunity costs I show him. **BF**

NEW IN THE DEPARTMENT

RYAN HILL

Can you give us an outline of your career and education?
I graduated from BYU in 2014 with a triple major in economics, political science, and mathematics. I became interested in doing research and pursuing a PhD when I worked as a research assistant for Dr. Price. I loved working with data, discovering new facts about the world, and answering policy-relevant questions. I went directly from BYU to start my PhD in economics at the Massachusetts Institute of Technology (MIT). My family and I spent six great years living in Boston, enjoying the rigorous research environment, wonderful church experience, and many Red Sox games. I recently completed a one-year post-doc working remotely at the Kellogg School of Management at Northwestern University.

What is your research specialty and what projects are you working on right now?
My research is about science and innovation, which are key drivers of economic growth. I am really fascinated by how people come up with new ideas and invent new things and how we can create policies that foster innovation within the economy. My papers answer questions like: How does competition affect the pace and quality of research? How does risk of project failure affect academic careers? I am excited to have recently started a new project about how access to mentored research opportunities in college affects a student's probability of entering a research or STEM career.

Where are you from, or where did you grow up?
I grew up in Nevada, Minnesota, California, and Utah.

What are some of your hobbies?
In my free time, I enjoy playing outside with my two kids, watching and playing sports, hiking, and skiing. During my PhD and post-doc, my wife Sarah suggested that I needed "indoor hobbies" to divert myself from work overload on evenings and weekends. I have spent the past few years developing my talents in my new passions of woodworking and playing guitar.

What excites you most about coming back to teach at BYU?
I am excited to return to the BYU Economics Department where I was first introduced to economics and developed an interest in research. The faculty in the department and BYU as a whole are excited about research, are supportive of each other in their research pursuits, and are committed to passing on that love of learning to their students. I'm excited to teach a new generation of students about the fascinating field of economics. **RH**

RICHARD PATTERSON

Can you give us an outline of your career and education?
I'm coming to BYU from West Point, where I was an assistant professor of economics. At West Point, I was a long-run research coordinator in the Office of Economic and Manpower Analysis and taught courses in behavioral economics and principles of economics. Fun fact: I was also an "Assistant Officer in Charge" or assistant coach for the West Point Mountain Bike Team. Before going to West Point, I finished my PhD in policy analysis and management from Cornell University.

What is your research specialty and what projects are you working on right now?
I specialize in applied microeconomics and have done research in applied behavioral, education, labor, and public economics. One of the unique aspects of my job at West Point was being able to access administrative Army records and coordinate partnerships to link these records to other data sources like federal tax records. With those data linkages, I am working on a couple of projects that look at the long-run effects of military service on important life outcomes like earnings, employment, marriage, and disability compensation.

Where are you from, or where did you grow up?
I grew up in California, Australia, and Utah. I consider myself a Utahn and am happy to be back!

What are some of your hobbies?
I love spending time with my wife (Kate) and our three kids. I also enjoy mountain biking, skiing, rock climbing, and reading good books.

What excites you most about coming back to teach at BYU?
Such a hard question! As an undergraduate at BYU, one of the reasons I loved being an econ TA was that so many students had great questions and insights. Now that I have a chance to be back as a faculty member, I'm really excited to get back into the same classrooms and engage with exceptional BYU Econ majors in similar ways. **RP**

BYU ECONOMICS

IN THE NEWS

2021

The new West View Building, courtesy of BYU Photo

1 CURRICULUM UPDATE

Applied Econometrics (formerly ECON 488, now ECON 398) has been changed from an elective course to a required course. To offset this change, students are required to take only four elective courses, thereby keeping the major at thirty-seven credit hours. This curriculum update reflects the Economics Department's goal to better prepare students for life after graduation by giving them solid data analysis skills.

2 DR. VOM LEHN

In June, *BYU News* published a Q&A with Dr. Christian vom Lehn. In this interview, Dr. vom Lehn addressed the current state of the economy and what we can expect when we emerge from the COVID-19 pandemic. Check out the interview at https://bit.ly/3EYcktp.

3 NEW FACULTY

Welcome to Dr. Rich Patterson and Dr. Ryan Hill, who both joined the Economics Department this fall. Rich came to BYU from his assistant professorship at West Point, and Ryan joined us fresh from his post-doc at Northwestern University. You can learn more about Rich and Ryan on page 31.

4 ECON STUDENT

Congratulations to econ student Rachel Miner, who was selected as a 2021 Truman Scholar. This award recognizes Rachel's academic excellence, leadership abilities, and commitment to public service. Rachel is the founder and executive director of Bellwether International, a nonprofit organization with a mission to promote and protect freedom of religion and belief.

5 FACULTY PROMOTIONS

Congrats to Dr. Jeff Denning for being promoted to associate professor and awarded continuing faculty status. We also congratulate Dr. James Cardon and Dr. Brennan Platt for their promotions to full professor.

6 DR. SHOWALTER

Shoutout to Dr. Mark Showalter for being featured in the *Las Vegas Sun* article "It's Time to Standardize Medical Test Prices" back in April. In the article, Dr. Showalter comments that price disparities in medical testing don't necessarily add up to fraud. Visit https://bit.ly/2VKKwHO to read the full article.

7 DR. PRICE

This year, *BYU News* highlighted Dr. Joe Price and his Record Linking Lab for their research on deaths in the US caused by the 1918 pandemic. The lab's research sheds light on the spread of the 1918 influenza and which city interventions were most effective in limiting deaths, bringing fresh insight to today's pandemic world. To read the *BYU News* article, visit https://bit.ly/3zPmoks.

8 ROADMAPS

The Economics Department has created a planning tool called Roadmaps to help econ students track their progress in the major and maximize their experiences in the program. This tool will be piloted in the career prep seminar this fall and fully launched next year. To learn more about Roadmaps, email econ-student-support@byu.edu. **JP**

10TH Economics ANNIVERSARY Magazine

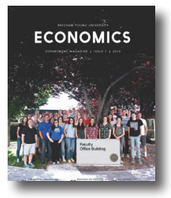
It's been ten years since our first Economics Department magazine! A lot has changed in the department, from a brand-new building to favorite professors retiring. Below, we've highlighted some of our favorite articles from the last decade. Visit economics.byu.edu/magazine to see past issues, or take a look at these highlights below. Now let's hope for another great ten years!

ISSUE 1, 2012: BUILDING A LEGACY

The first-ever issue of the magazine, printed in 2012, features an article titled "Building a Legacy" that tells the history of the study of economics at BYU. From the first econ course in the late 1800s to the formation of the Department of Economics in 1921, one champion of the discipline was John C. Swenson. He was an early scholar at the Provo Academy who devoted his life to academia and the mission of BYU. After teaching and leading at BYU for over fifty years, Swenson wrote, "To review the achievements of the University since its founding seventy years ago, reads like a fairy tale. . . . The curriculum offerings have so broadened and deepened that the University has equal status with many of the leading universities of the land." This reflection is even truer today than it was when Swenson wrote it. Our faculty carry on his legacy through their excellence in teaching and research. Likewise, the department continues to evolve to serve students, as seen with our 2021 curriculum changes.

ISSUE 5, 2016: WOMEN'S STORIES OF SUCCESS IN ECONOMICS

In the 2016 issue, we highlighted several women in the econ major. At the time, women made up 16% of students in the program. In 2021, that number is up to 20%! This is in large part thanks to the Women in Economics (WECON) club, a subdivision of the Economics Student Association. WECON regularly hosts events to recruit female students to the major. You can check out WECON's activities on Instagram through @byuwomeninecon. Another recruiting initiative in the department is the Econ Major Info Session for Women, where we invite BYU econ alumnae to share their experiences as women in the workforce. We hold the info session every fall and winter semester. If you're interested in participating, please contact alumni-economics@byu.edu for an invitation.



ISSUE 7, 2018: THE RECORD LINKING LAB

Dr. Joe Price's Record Linking Lab has kept busy since being featured in the 2018 issue of the Economics Magazine. This lab links family history, economics, and machine learning. Over forty students in the lab are working to build the family tree and expand the number of records that can be used in family history work. Current projects in the Record Linking Lab include the African-American Families Project, aimed at increasing the coverage of African-Americans on the tree, as well as the Census Tree Project, which aims at linking the 188 million people contained in the census from 1900 to 1940. For more updates on the Record Linking Lab and details about current projects, visit rll.byu.edu.

ISSUE 9, 2020: DIVERSITY IN THE WORKPLACE

Our 2020 article "Diversity in the Workplace" shared some of Dr. Olga Stoddard's recent research about increasing workplace diversity and inclusion. Dr. Stoddard's work in this field has led her to the Science of Diversity and Inclusion Initiative (SODI), a nonprofit organization conducting field experiments aimed at increasing diversity and inclusion in the workplace. We are happy to report that, in 2021, the researchers at SODI (including Dr. Stoddard) have continued to investigate diversity from an interdisciplinary perspective and to share their findings with organizations. They have partnered with corporations such as Google, General Electric, and the NBA to foster belonging and inclusion through scientific evidence. To learn more about SODI, visit sodi.org. **JP**

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