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The Benefits of College Athletic Success

In **The Benefits of College Athletic Success: an Application of the Propensity Score Design with Instrumental Variables** (NBER Working Paper No. 18196), **Michael Anderson** finds that unexpected regular season football victories by NCAA Division I-A schools increase alumni athletic donations by $134,000. These victories also increase applications by 1 percent, and they improve a college's 25th percentile SAT score by 1.8 points.

Anderson uses data on bookmaker spreads to estimate the probability of winning each football game, and thus to identify unexpected success. He then estimates the effect of unexpected success on donations and applications. He suggests that his observed effects likely operate through one of two channels. First, a team that plays well may be more enjoyable to watch, and if alumni and prospective students spend more time watching a college's team, they may feel more connected to the school. Second, fans and alumni may enjoy winning itself.

> "Unexpected regular season football victories by NCAA Division I-A schools increase alumni athletic donations … and applications."

Anderson notes that a simultaneous investment of $1 million in every one of these teams probably would generate smaller effects on donations and applications than the surprise victories he studies, because team won/loss records are a zero sum game and improving the level of overall play would not create any more wins for a given team.

About 8 percent of the teams in Anderson's sample improve their season wins by five games over a one-year period. Improvements of that magnitude increase alumni athletic donations by $682,000 (28 percent), applications by 677 (5 percent), and 25th percentile SAT scores by 9 points (1 percent).

— Linda Gorman

Job Applications to Distressed Firms

Average employment within a company decreases by 27 percent in the two years surrounding a bond default and by 50 percent or more around a bankruptcy filing. Such job losses can be extremely costly for laid off workers who may face limited opportunities to find new employment, lower average wages at a new job, and possible psychological costs. These losses are believed to be greatest for workers with firm-specific skills. Given the costs, workers are likely to avoid distressed firms, making it difficult for these firms to recruit new talent, particularly for positions that require firm-specific investments.

In **Boarding a Sinking Ship? An Investigation of Job Applications to Distressed Firms** (NBER Working Paper No. 18208), authors **Jennifer Brown** and **David Matsa** use data from a large online job search platform to estimate the impact of corporate distress on firms' ability to attract job applicants. They find that job seekers' perceptions of firms' financial health are positively related to firms' actual status. They also find that the volume and quality of applicants attracted to open job postings is negatively related to firms' financial health.

The authors find no evidence that the decline in applications results from shifts in labor demand; the results hold for same-job analysis, and advertised salaries, if anything, increase. Applications decrease most among workers with less protection from state unemployment insurance and among workers facing greater upfront costs because they must relocate from out of the state.

"The volume of applicants attracted to open job postings is negatively related to firms' financial health."

Although it is impossible to quantify the impact of these effects on firm profitability, one likely implication is that distress reinforces distress: a struggling firm may be unable to retain and attract workers who could contribute to its recovery. Distress reduces firms' access to the national labor market and makes it particularly challenging to recruit for jobs with demanding educational requirements.

More broadly, the results of this study imply that labor market frictions are an important consideration for corporate decisions related to financial and operational matters, innovation, and growth strategies. The labor-related costs estimated here provide firms with a strong incentive to avoid distress.

Of course, firms can abate these costs in any number of ways. Most directly, the firm can reduce leverage and choose more conservative financial policies. Firms also can reduce the probability of distress by lowering operating leverage or taking on less risky projects, or can mitigate costs by redesigning job tasks to require fewer firm-specific skills.

— Lester Picker

Competition and Ideological Diversity among Newspapers

In **Competition and Ideological Diversity: Historical Evidence from U.S. Newspapers** (NBER Working Paper No. 18234), co-authors **Matthew Gentzkow**, **Jesse Shapiro,** and **Michael Sinkinson** find that American households in the early twentieth century preferred to read political content in newspapers that reflected their own ideological viewpoints. Newspapers often adapted to those political preferences while also trying to differentiate themselves politically from their rivals in order to draw circulation and advertising dollars.

The authors use data from newspaper directories, industry associations, the U.S. Census, county-wide voting records, and other sources on U.S. daily newspapers in 1924. In all, they review data from nearly 2,000 markets and more than 1,300 newspapers that competed within these markets. During that era, newspapers were more apt to openly declare their political affiliations, and there were more cities with competing daily newspapers than there are today.

The authors find that households demand newspapers whose political leaning matches their own, whether Republican or Democrat. They estimate that a 10 percent increase in people voting Republican in a given market is correlated with a relative increase in the circulation of a Republican newspaper by 10 percent. The entry of a second Republican newspaper into a market which previously had one Republican paper and one Democratic paper reduces the relative circulation of the existing Republican paper by 4 percent because some households will opt to read the new entrant rather than the existing Republican paper.

A 10 percentage point increase in the fraction of Republicans in a market is correlated with a 23 percentage point increase in the probability that an entering newspaper chooses a Republican affiliation. But having an additional Republican newspaper within a market reduces the entering paper's likelihood of choosing a Republican affiliation by 15 percentage points, suggesting that new entrants want to differentiate themselves in order to attract circulation and advertising dollars. The incentive to differentiate from rivals appears to be quantitatively more important than the incentive to cater to the tastes of the majority, and it increases the diversity of newspaper offerings significantly. Competing newspapers try to match the tastes of local consumers while politically differentiating themselves from rivals whenever possible.

> "[In the 1920s] a 10 percentage point increase in the fraction of Republicans in a market also is correlated with a 23 percentage point increase in the probability that an entering newspaper chooses a Republican affiliation."

Motivated by the idea that an ideologically diverse press may increase the degree of government oversight, the authors evaluate the effect of several policies that governments have used to encourage viewpoint diversity in the media. They find that both antitrust leniency and direct subsidies are effective in increasing the share of markets in which both a Republican and a Democratic newspaper compete.

— Jay Fitzgerald

Projection Bias in the Car and Housing Markets

Weather clouds people's judgment when it comes to buying cars and homes, according to **Projection Bias in the Car and Housing Markets** (NBER Working Paper No. 18212). If it's warm or sunny, they're more likely to buy a convertible. After a snowstorm, they're more likely to buy a four-wheel drive vehicle and, when it's cold, a black car or truck. Buyers pay more for a home with a swimming pool when it's hot than when it's cold.

These findings suggest a phenomenon known as projection bias: the tendency of individuals to exaggerate how much their future taste will be like it is today. According to authors **Meghan Busse, Devin Pope, Jaren Pope,** and **Jorge Silva-Risso**: "Many of the most important decisions that we make in life involve predicting our future preferences. Projection bias may limit our ability to make these predictions accurately." They show that "projection bias causes consumers in the car and housing markets to make decisions that are overly influenced by the weather at the time of the decision."

For example, when the authors look at data from roughly 20 percent of all new car dealerships in the United States over a period of eight years, they find that the percentage of convertibles purchased peaks in April in seven out of those eight years. According to conventional economic theory, that's rational: buyers get to enjoy the car all summer before cool weather sets in.

But the authors also find considerable variation in the purchase of convertibles at other times of the year, depending on weather. For example, an abnormally warm week in November in Chicago results in a significant increase in the percentage of convertibles sold there. And when a clear sky gives way to a completely cloudy one, convertible sales fall.

Similarly, a snowstorm increases 4-wheel drive vehicle purchases by almost one percentage point. The authors caution that overall, sales drop during snowy times because people typically don't buy cars immediately after a snowstorm, but the sales of four-wheel drives drop less than sales of other types of vehicles, increasing their share of all vehicles sold.

On the other hand, a 20-degree rise in temperature is associated with a 0.26 percentage point decrease in sales of black vehicles (a 2.1 percent change relative to the norm). Weather changes that affect sales volume also affect sales prices, but not much. For example, a 20-degree temperature rise during the week boosts the price of a used convertible by an average of $79.60, which is modest compared with the average transaction price of $22,222.

"Projection bias causes consumers in the car and housing markets to make decisions that are overly influenced by the weather at the time of the decision."

Weather patterns also affect sales volumes and prices of certain types of homes. When the authors study data on more than 4 million single-family homes across the United States that were sold at least twice between 1998 and 2008, they find that homes with swimming pools that sold in the hottest months of the year (June, July, and August) commanded a price that on average was 0.22 percentage points more than would be expected. By contrast, homes with pools that went under contract in the coldest months of the year (December, January, and February) sold for an average 0.18 percentage points less than would be expected. The average sale price of such houses was $398,000, so this represents a swing of about $1,600 between the warm and cold months.

The authors point out that buyers who purchase houses in mid-summer may under-estimate the delay between a contract and a closing, when the owner can actually move in. They note that: "The houses that we identify as selling in August are houses that will close in October — meaning that the buyers of those houses will move in just at the point in the year in which swimming pool season is the farthest away."

Temperature also makes a difference: the authors find that houses with pools that went under contract in a month where the average daily high was more than 90 degrees sold for 0.37 percentage points more than when these same houses went under contract in a month whose average temperature was below 90. There is also similar though smaller seasonal variation in the prices of homes with central air-conditioning.

— Laurent Belsie

A New Look at Second Liens

Second lien loans are an important segment of the credit markets in the United States, even larger in the aggregate than total credit card borrowing. In **A New Look at Second Liens** (NBER Working Paper No. 18269), authors **Donghoon Lee, Christopher Mayer, and Joseph Tracy** use data from credit reports and deed records to investigate the extent to which second liens may have contributed to the recent housing crisis and subsequent foreclosure crisis.

While second liens were widely available prior to the crisis, they came in two very different flavors. Home equity lines of credit (HELOCs) were attractively priced, but originated to people with high credit scores and to home owners who either had no first lien or who had a prime first mortgage — that is, the highest credit quality borrowers. Their originations peaked in 2004, before the peak in home prices, and defaults on them have been relatively low compared to other types of mortgages.

By contrast, closed-end second liens (CESs) often were issued to borrowers with low credit scores and were more likely to be originated at the same time as a first lien (a so-called piggyback mortgage) or with a nonprime first mortgage. The issuance of CES mortgages peaked between 2005 and 2007 when credit standards had deteriorated and house prices were at their peak. Subsequent default rates have been very high.

Second liens helped to finance a large share of home purchases during the housing boom. At the peak of the housing market in 2006, more than 40 percent of home purchases in coastal markets and bubble locations involved a piggyback second lien. Second liens were strongly associated with the use of low down payments to purchase homes; they may have allowed some borrowers who might not otherwise have been able to purchase a home to do so. While this borrowing pattern suggests a link between second lien borrowing and the housing bubble, the authors are not able to determine with existing evidence the extent to which this relationship is causal.

“Second liens were strongly associated with the use of low down payments to purchase homes.”

In general, they find that default rates on second liens are similar to those on first liens on the same home, although HELOCs perform better than CESs because of the timing of their origination and the quality of borrowers. Borrowers with second liens are more likely to initially become delinquent on their first mortgages than on their second liens, but if that delinquency persists, they are likely to eventually default on their second lien. Nonetheless, roughly one quarter of borrowers will continue to pay their second lien for more than a year while remaining seriously delinquent on their first mortgage.

Finally, the authors show that delinquency rates on second liens, especially HELOCs, have not declined as quickly in the last few years as those for most other types of credit. This raises a potential concern for lenders with large portfolios of second liens on their balance sheets.

— Claire Brunel

Moral Hazard and Claims Deterrence in Private Disability Insurance

Through its Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) programs, the U.S. government provided nearly 12 million disabled individuals with annual benefits totaling $150 billion in 2010. The public Medicare and Medicaid programs provided roughly the same amount of health insurance benefits to these individuals. Nonetheless, the acceptance rates for these programs are low (about half of applicants) and their replacement of pre-disability earnings averages about 50 percent after taxes, with lower replacement rates for higher income workers.

Because of the limitations of

these public disability programs, many private employers offer supplemental long-term disability (LTD) insurance. In **Moral Hazard and Claims Deterrence in Private Disability Insurance** (NBER Working Paper No. 18172), **David Autor, Mark Duggan,** and **Jonathan Gruber** provide a detailed analysis of the incidence, duration, and determinants of claims made on private LTD policies. Using a database of approximately 10,000 policies and one million workers from a major long-term disability insurer covering the years 2000 to 2006, they determine that private LTD claims rates are much lower than claims rates on SSDI, and that private LTD policies have a much higher return-to-work rate among initial claimants.

Their analysis also suggests that the impact of moral hazard on LTD claims is substantial. Based on within-firm, over-time variation in plan characteristics, the researchers find that a higher replacement rate and a shorter waiting time to receive benefits — known as the elimination period — significantly increase the likelihood that workers claim LTD. About 60 percent of the effect of a longer elimination period comes from the censoring of shorter claims, while the remainder is due to the fact that workers facing a longer elimination period are less likely to claim benefits for impairments that would lead to only a brief period of receiving disability payments. This effect is equally large among high- and low-income workers, suggesting that moral hazard rather than liquidity underlies the behavioral response. Consistent with this interpretation, the response of LTD claims to plan parameters is driven primarily by the behavior of the healthiest disabled, those who would return to work after receiving disability benefits.

> "Private long-term disability insurance claims rates are much lower than claims rates on Social Security Disability Insurance, and ... private long-term disability policies have a much higher return-to-work rate among initial claimants."

— Matt Nesvisky

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