Annotaties Daniel deel 2:

Nov. 5, 2015

at

7:15 AM

College Students Aren’t The Only Ones Abusing Adderall

By Emma Pierson

Filed under Drugs

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Illustration by Kelsey Dake

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I can easily understand the appeal of Adderall, a drug that treats ADHD by increasing focus and attention span. It has taken me three months to finish this article, several weeks of which was due to Facebook; I wrote the last draft in a caffeine-fueled mania, listening to “Reptilia” on repeat as a deadline loomed. Who wouldn’t be tempted by a drug that might make it easier to keep up in a world that runs at overwhelming speed?

Evidently, many people agree. The proportion of Americans using Adderall, and other “study drugs” like Ritalin and Vyvanse, is increasing rapidly. Between 2008 [TV] and 2012 [TV], the use of ADHD medications [CV] increased by 36 percent [QV], according to an analysis of pharmacy prescriptions.

This is partially because ADHD diagnosis rates have increased [TE]: by 16 percent [QV] among adolescents from 2007 [TV] to 2011 [TV], a Centers for Disease Control and Prevention analysis found. But many people also use Adderall and similar drugs nonmedically, that is, without a prescription or in ways not recommended by a doctor (for example, by snorting or in very high doses).

This behavior is risky. The Drug Enforcement Administration classifies Adderall as a Schedule II drug, the same category as cocaine, because of its potential for abuse. When used as prescribed to treat ADHD, Adderall and similar medications are both effective and unlikely to be addictive; when used improperly, however, they can be highly addictive, and the evidence that they significantly improve cognition is mixed.

So who is willing to take the risk of nonmedical use? If you believe the media coverage, it’s college students: CNN has discussed the “rise [TE] of study drugs in college,” and last year the Clinton Foundation described misuse of ADHD drugs as an “epidemic.”

But it isn’t only college students who use study drugs nonmedically ‚Äî it’s young adults more broadly, regardless of whether they’re in college. And among college students who use study drugs, there are interesting and almost paradoxical patterns: Study drugs are used more by students at competitive schools, but also more by students with low GPAs. Study drugs may not be used by high-achievers to push themselves even harder; they may be used by those who are falling behind.

The emphasis on nonmedical study drug use in college students stems in part from a government report using data from 2006 [TV] and 2007 [TV], which said that college students ages 18 to 22 [CV] were twice as likely [CE] as people of the same age who weren’t in college [CV] to have used Adderall nonmedically. But when I looked at more recent data from the 2013 [TV] National Survey on Drug Use and Health (NSDUH), an annual government survey that includes more than 55,000 Americans [QV], the difference [CE] turned out to be closer to 1.3 times, not two times.1

{BAR}<This is far smaller than the difference between white 18- to 22-year-olds [CV] and black 18- to 22-year-olds [CV], whether they were in college or not (six times, or 18 percent [QV] vs. 3 percent [QV]), or the difference between 18- to 22-year-olds whose families do not receive food stamps [CV] and those whose do [CV] (1.6 times, or 14 percent [QV] vs. 9 percent [QV]). When I looked at Ritalin (another common study drug), non-college-students in that age range [CV] were slightly more likely [CE] than college students [CV] to engage in nonprescription use.2 My research shows that when it comes to nonprescription study drug use, being a young adult matters more than being a college student.>

Still, college students are 30 percent [QV] more [CE] likely than their nonstudent counterparts [CV] to use Adderall nonmedically. What drives this trend? Amanda Divin, a professor at Western Illinois University who studies nonmedical prescription drug use and behavior in college students, said that it can be easier to obtain study drugs on college campuses and more socially acceptable to use them. She cited a study in which 55 percent [QV] of fraternity members reported using nonmedical ADHD stimulants as evidence that social environment can dramatically affect usage rates.

{BAR}<Are nonmedical study drugs more popular at certain types of colleges? I sought to answer this question with data from Niche.com, which provides information to help people choose neighborhoods and schools. Niche gave me college-by-college surveys in which a total of more than 50,000 college students [QV] named the most popular drugs on campus.3 I connected this data with other data about each college, such as location and selectivity, and found, for example, that study drugs like Adderall and Ritalin were most popular at schools in New England.4 Only 25 percent [QV] of college students in Rocky Mountain schools [CV] reported that study drugs were among the most popular on campus versus [CE] 40 percent [QV] of students in New England [CV], for example.>

The differences among regions imply that surveys that look only at a single school may miss important trends in study drug use on campus.

Niche data also showed that study drugs were more popular at colleges that were more selective or had higher test scores. In the chart below, each point represents one school; the horizontal axis shows the 75th percentile ACT score for incoming students, and the vertical axis shows the share of students who said study drugs were popular on campus. The positive correlation between ACT score and study drug use is highly statistically significant (and previous research has found this pattern as well).5

If Adderall is more popular at colleges with competitive admissions standards, you might also expect it to be used more by high-achievers. But multiple studies find that students who use nonprescription study drugs [CV] have a lower [CE] college GPA ‚Äî even when controlling for factors such as high school GPA, frequency of skipping classes and hours spent studying.

“These students tend to be lower-achieving students who procrastinate and do not study in advance, attempting to cram studying into one night with the assistance of Adderall to both stay awake as well as stay focused,” Divin said.

These students are more likely to struggle in other ways as well. Previous research has found that students who use nonprescription Adderall or Ritalin are more likely to be depressed. The NSDUH data backs this up: College students who had used Adderall nonmedically reported higher levels of depression and were more likely to have considered suicide.

Importantly, these correlations, though significant, do not mean that Adderall causes low GPAs or depression. Causality might run the other way: Students who are already depressed or struggling in school could be using Adderall in order to feel better. Or a third factor may be to blame: Students who use Adderall nonmedically are also more likely to abuse alcohol and marijuana, for example.

So students at high-achieving schools and students with low GPAs are more likely to take Adderall. This could be because students are more likely to take Adderall when they are more stressed about their academic performance. Many studies make it clear that students use study drugs in part because of academic stress. A recent analysis of NSDUH data found that students were more likely to use stimulants for the first time during exam months. Other less conventional data sources support this latter finding: For example, I found that Google searches for “Adderall” in college towns spiked during exam months and dropped during summer months, and a 2013 [TV] study of 200,000 tweets [QV] mentioning Adderall found that they peaked [CE] during exam periods.

Adults older than 25 who use Adderall nonmedically [CV] may also struggle. I initially thought that adults working long hours at high-income jobs [CV] would be most likely to use Adderall nonmedically. I was wrong. The NSDUH data showed that adults whose family incomes were below $10,000 [CV] had the highest rates [CE] of nonmedical Adderall use, and those whose family incomes were greater than $75,000 [CV] had the lowest [CE]. Adults who used Adderall nonmedically [CV] also reported higher [TE] levels of depression and were more likely to consider suicide.

To a student confronting an exam, or an employee confronting a deadline, Adderall must seem as tempting as steroids to an athlete ‚Äî particularly if everyone else seems to be using it. But Divin was clear: “There isn’t data to suggest or support [the idea] that non-ADHD individuals who use prescription stimulants actually experience any benefits from their use.”

The code for this analysis is available on GitHub.

Read more: How Many Adults Take ADHD Drugs?

Apr. 15, 2014

at

9:56 AM

Do Pulitzers Help Newspapers Keep Readers?

By Nate Silver

Filed under Awards

Get the data on GitHub

GitHub data at data/pulitzer

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Charlotte Observer editorial cartoonist Kevin Siers won a 2014 Pulitzer Award for editorial cartooning. David T. Foster III / Charlotte Observer / MCT

The 2014 [TV] Pulitzer Prizes were announced Monday afternoon. Congratulations to all the finalists and winners of the annual journalism awards. We’re fans of high-quality journalism at FiveThirtyEight, and we’re hoping to see the organizations that produce it succeed financially as well as journalistically.

The economics of newspaper publishing remain very challenging, of course. So I wanted to see whether there was any relationship between the Pulitzer Prizes and a newspaper’s commercial success. Are consumers gravitating toward news outlets that produce work of Pulitzer quality [CV]? Or are these newspapers struggling even more [CE] than others [CV]?

I looked up daily circulation figures for the top 50 U.S. newspapers [QV] as of 2004 [TV] and how much circulation had increased [TE] or decreased [TE] as of 2013 [TV]. I then searched the Pulitzer database for how many winners and finalists those newspapers have had since 1990 [TV]. We’ve posted all of this data at Github.

{LINE}<Topping the Pulitzer ranks is The New York Times [CV], which by my count has had 117 winners and finalists [QV] since 1990 [TV]. (My totals may be inexact because the Pulitzer database can list a newspaper under different variations of its name, or the attribution of an award may otherwise be unclear.) The Times’ print circulation [CV] fell [TE] by 35 percent [QV] between 2004 [TV] and 2013 [TV]. However, the paper also sells digital subscriptions, which the Alliance for Audited Media now includes as part of its circulation figures. Counting those, Times subscriptions [CV] were up [TE] 67 percent [QV] between [TV] 2004 and 2013 [TV].>

{LINE}<Unfortunately, the Times is something of an outlier. The Washington Post [CV] has had 100 Pulitzer winners and finalists [QV] since 1990 [TV], but its total circulation [CV] was down [TE] 38 percent [QV] from 2004 [TV] to 2013 [TV](counting digital subscriptions). The Los Angeles Times [CV], with 85 winners and finalists [QV], saw its circulation drop [TE] 34 percent [QV] over the same period, while The Boston Globe [CV], with 41 winners and finalists [QV], experienced a 45 percent decline [TE].>

Overall, the relationship between Pulitzer Prizes and changes in circulation is very noisy, as can be seen in the chart below. The very modest positive correlation in the chart is mostly the result of The New York Times alone. Were digital subscriptions not counted for the Times and other newspapers, the correlation would be essentially zero instead.

Does that mean that newspapers might as well forget about quality as an economic strategy? That’s not what this data says. There is a relationship between Pulitzer Prizes and circulation (the correlation is .53 among the 50 newspapers [QV] listed here). It’s just that this relationship hasn’t changed much from 10 years [TV] ago. The vast majority of newspapers have seen their circulations decline; the ones that win a lot of Pulitzers have suffered about as much as the ones that don’t. You could spin this result as a negative for high-quality journalism ‚Äî newspapers that win Pulitzers are doing no better at retaining their readers ‚Äî or as a positive ‚Äî almost all newspapers are struggling, but the ones that win Pulitzers continue to have more readers.

This is just a quick take, of course. Newspaper sales are affected by all sorts of factors, and counting circulation is not straightforward in the digital age. We encourage you to explore the data yourself.

A couple of further notes. First, in the file we’ve provided, we’ve broken down Pulitzer Prizes into two periods, 1990-2003 [TV] and 2004-2014 [TV]. That’s because, if we’re being very precise, the number of Pulitzers since 2004 [TV] can’t be said to “predict” circulation changes from 2004 [TV] onward because these things occurred concurrently. (It could be that commercially successful newspapers can afford to reinvest in categories like investigative journalism ‚Äî meaning that sales predict Pulitzers rather than the other way around.) However, taking the Pulitzer numbers from 1990-2003 [TV], from 2004-2014 [TV] or over the entire period from 1990-2014 [TV] makes little difference in the results.

Second, we’ve listed the New Orleans Times-Picayune [CV] as having experienced a 100 percent [QV] drop [TE] in daily circulation. That’s because the paper no longer publishes a daily print edition; instead, it publishes on Wednesdays, Fridays and Sundays.

Finally, the San Jose Mercury News now counts sales of the Contra Costa Times and the Oakland Tribune as part of its figures. To provide for a fairer comparison, we’ve gone back and added the Contra Costa Times’ and Oakland Tribune’s circulation numbers to the San Jose Mercury News’ circulation totals for 2004 [TV]. We’ve also included the Oakland Tribune’s 1990 Pulitzer Prize in the Mercury News’ figures.

Nov. 20, 2015

at

3:02 PM

Here’s What Your Part Of America Eats On Thanksgiving

By Walt Hickey

Filed under Food

Get the data on GitHub

GitHub data at data/thanksgiving-2015

FacebookTwitterEmail

A turkey at the Willie Bird farm in Sonoma, California, last year. Justin Sullivan / Getty Images

Thanksgiving ‚Äî when we give thanks and celebrate a tale about the welcoming of foreign refugees to American shores ‚Äî is once again upon us. For some, it’s a day of mass media consumption, with a parade and three NFL games. For others, it’s a day to identify the secret Canadians in our midst by finding out they don’t have plans (Kim!). Sure, we’ve hit the point where the Santa Claus float at the end of the Macy’s Thanksgiving Day Parade commemorates the start of the third week of Christmas music on the radio, but at least turkeys are cheap, right?

And that’s what Thanksgiving is really about: food. So, in the spirit of the things that bring us all together, let’s peel apart this holiday and carve this nation up into factions like a bargain-bin bird. Who eats what where? Our SurveyMonday Audience poll about Thanksgiving traditions had 1,058 respondents [QV].

Chicken [CV], pork [CV] and roast beef [CV] got cursory shout-outs as main Thanksgiving dishes, but turkey [CV] rules, with 82 percent of respondents [QV] saying the other, other white meat [CV] is the centerpiece of their meal. When you get past the poultry and check out the side dishes, though, the regional distinctions really come out.

Here’s the most disproportionately consumed side dish in each region:

{BAR}<Going deeper, the Southeast is the definitive home of canned cranberry sauce [CV]; respondents from the region are 50 percent [QV] more likely [CE] to pick that [CV] over the homemade variety [CV]. The Middle Atlantic states disproportionately have cauliflower as a side ‚Äî 17 percent [QV] in the region [CV] versus 9 percent [QV] nationwide [CV] ‚Äî while Texas and central Southern states [CV] see cornbread as far more necessary than the rest of the country, with 40 percent of respondents [QV] from those regions [CV] having it at dinner, compared with [CE] only 28 percent [QV] of the nation [CV].>

{BAR}<The Southeast prefers their carbs in the form of mac and cheese [CV] ‚Äî 35 percent of respondents [QV] in that region [CV] include the dish [CV] on their Thanksgiving menu versus 20 percent [QV] of the country overall [CV]. Meanwhile, New England [CV] is losing its mind over squash, with 56 percent [QV] demanding it on their table, compared with only [CE] 18 percent [QV] of the nation as a whole [CV]. This is, by far, the most confusing [CE] finding of this whole pursuit. Did Gronk endorse squash or something?>

What about dessert? Every region enjoys pumpkin pie. But beyond that, there are three Americas: The America that disproportionately has apple pie [CV] (New England and the Middle Atlantic), the America that has pecan pie and sweet potato pie [CV] (the assorted South), and the America that consumes cherry pie [CV] (the Midwest and West).

Still, after dessert, the nation unites around that most American of traditions: buying shit. With little variation among regions, a solid 23 percent of respondents [QV] said they would shop Black Friday sales on Thanksgiving Day [CV], a great way to leave the family behind a little early.

Another way to ditch the party early: leave after dinner to hang out with high school friends. Thirty-seven percent of respondents [QV] said they’ve done that [CV]. So it might be worth checking out Facebook ahead of time to see which of your old associates don’t have kids yet. I know I’ll be doing that, and I’ll see you at that bar that didn’t card when we were 19.

You can download the data for yourself here.

Jun. 10, 2015

at

9:16 AM

The Most Common Unisex Names In America: Is Yours One Of Them?

By Andrew Flowers

Filed under Names

Get the data on GitHub

GitHub data at data/unisex-names

FacebookTwitterEmail

Riley Curry, Riley Cooper and Riley Keough Getty

Casey, Riley, Jessie and Jackie. Peyton, Jody, Kerry and Pat. Are these men or women? It can be hard to say because these names are pretty much unisex.

{BAR}<Take Riley, for example. Nearly 155,000 living Americans [QV] are named Riley [CV], and the male-to-female ratio is pretty balanced [CE], with a 51 percent [QV] to 49 percent split [CV].>

If Riley rings a bell, it may be because you saw a recent video of Riley Curry, the adorable 2-year-old daughter of NBA MVP Stephen Curry of the Golden State Warriors, at a post-game press conference. Or perhaps you’re thinking of Riley Cooper, the wide receiver for the Philadelphia Eagles. That’s the thing: Riley is neither a man’s name nor a woman’s. It’s both.

It turns out that nearly 1 percent of Americans [QV] (or 1 in 109) have a unisex name [CV], which means that at least one-third of newborns given that name were male and at least one-third were female. It’s hard to say what the “most” unisex [CE] name is, but the chart below lists the 20 most common unisex names [QV], ranked by the total number of people with that name.

Building off work done with my colleague Mona Chalabi, I used over 100 years of data [QV] from the Social Security Administration to create this list of the most androgynous names. (The SSA has data on names given to at least five people [QV], but I set my minimum threshold at 100 people [QV] to make sure that a name was prevalent enough to determine whether it was actually unisex.) Using actuarial tables, also from the SSA, I adjusted the names data to approximate the number of people currently living with each name. (This was similar to a method my colleagues Allison McCann and Nate Silver used in a previous story.)

For a name to make the top 20 cut, at least 25,000 people currently alive in America [QV] had to have it.

Nearly 3 million people [QV] have one of the more than 900 names in the searchable table below [QV]. The “gap” column shows the difference [CE] in the male and female shares. The lower [CE] the number, the more evenly balanced the name is between the sexes (with a minimum value of zero [QV] and maximum of about 33.33 [QV]).

The SSA does not edit its list of names and as a result records a number of what are most likely placeholder names. We were able to identify five of these (Unknown, Unnamed, Infant, Infantof and Notnamed) and removed them from the data. Others, like Baby and Child, we thought were more ambiguous and so left them in.

You can explore the code behind this analysis, as well as the full data set, at GitHub.

CLARIFICATION (June 10, 2:27 p.m.): An earlier version of the searchable table of unisex names in this article excluded two likely placeholder names (Unknown and Unnamed) but should have excluded three more (Infant, Infantof and Notnamed). We’ve now taken those out of the data, too, and added an explanation.

Apr. 19, 2017

at

10:41 AM

How ‚ÄòQi’ And ‚ÄòZa’ Changed Scrabble

By Oliver Roeder

Filed under Games

Get the data on GitHub

GitHub data at data/scrabble-games

FacebookTwitterEmail

I had a grand plan, dear reader. I planned to shed quantitative light on the problem of income inequality. And I planned to do it with a million games of web-scraped Scrabble tournament data.

But, like in Scrabble, where the best-laid plans sometimes leave you holding a rack full of vowels and nowhere to play them, I was left with unanswered questions and a pile of data. Turns out that Scrabble can’t explain a core economic concept. But please bear with me. There’s a data party favor at the end.

Inequality has skyrocketed in the U.S. over the past half-century, documented in great detail by all sorts of folks. One theory for the widening gap between the 1 percent [QV] and the 99 percent [QV] is technological change: When new technologies emerge, higher-skilled and higher-earning workers can more quickly adapt to and exploit them, the notion goes. They become more effective at work and can earn even more, and the gulf widens.

There has been dramatic “technological” change in Scrabble, too, and it involves dictionaries. Every weekend, in hotel ballrooms, empty offices and fast-food restaurants across the country, tournament Scrabble players take their seats, two to a board, to place the game’s 100 lettered tiles. This is the Scrabble “economy.” Governing the interactions in this economy is a dictionary full of tens of thousands of allowed words. Every so often, the book gets even thicker ‚Äî Scrabble’s “technology” improves.

About a decade ago, there was an actual technological revolution in the game: Its training tools went digital, allowing players to learn words and strategies more easily. In 2006 [TV], an early version of Zyzzyva, a now-indispensable word-study tool, was first publicized, and Quackle, a Scrabble analysis engine and A.I. sparring partner, was publicly released.

The biggest change happened that same year, in March, when a new dictionary, the second edition of the Official Tournament and Club Word List, took effect. This edition christened QI and ZA as valid Scrabble words in North American play, along with FE, KI, OI and an additional 11,000-odd longer words [QV]. Two-letter words are the building blocks of Scrabble’s DNA, and the Q and Z are juicy high-point tiles ‚Äî so the game evolved instantly.1 You can see that in the data set I created by scraping over 1.5 million tournament games [QV] covering the years 1973 [TV] to 2017 [TV] from cross-tables.com, an online clearinghouse for Scrabble tournament results. After the new dictionary hit the scene, the average score grew [TE] by about 10 points per player per game [QV] overnight. (The average score in the data set is about 374.)2 [QV]

But what other effects did this technical lexical revolution have? Did better players more effectively exploit these new words, increasing their average score more than their mediocre weekend counterparts? Did the Scrabble rich get Scrabble richer? Did income ‚Äî ahem, point-scoring ‚Äî inequality increase?

I, and experts I spoke with, suspected yes. “One of the reasons I love Scrabble is the complex metagame ‚Äî every time there’s a new development, like a dictionary update, everyone has to adapt, and the game changes,” Evans Clinchy, a top player from Oregon, told me. “I definitely think that stronger players are better-equipped to exploit these changes than weaker ones.”

But when I ran the numbers, trying to uncover inequality-exacerbating distributional effects of new words in the Scrabble economy, there was weak evidence at best. In fact, players of all skill levels seemed to benefit more or less equally from the expanded word lists, and average scoring went up similarly across the board. But maybe some light does shine through this Scrabble keyhole onto larger questions of macroeconomy. Thomas Piketty, a French economist and the author of “Capital in the Twenty-First Century,” for example, is sharply skeptical of the technology explanation for income inequality, even if he probably didn’t have Scrabble in mind. (By my count, the game isn’t mentioned once in his book’s 704 pages. [QV])

FiveThirtyEight believes in showing its work, which is why you read this piece of scratch paper and why we’ve posted the data to GitHub. If you find anything interesting, or end up using this in your economics dissertation, let me know!

Dhrumil Mehta contributed research.