My paper, “Social Animal House: The Economics and Academic Consequences of Fraternity Membership”, which is joint work with Jack Mara and Lewis Davis and forthcoming in *Contemporary Economic Policy*, received substantial media attention in late 2017. Below is a list of non-technical answers to frequently asked questions about the paper; you can also read the full paper on SSRN or via the journal (see my web page forlinks).

The FAQs are divided into four categories: **Causality** (how do you know fraternities actually causes these effects rather than just being correlated with them?), Underlying Reasons (how can fraternities make that much difference?), Policy Implications (what should we do, or not do, about this?), and Other Matters (everything else).

1. **Causality**

**Q. Doesn’t this just happen because people who join fraternities come from wealthier families, are already well connected, etc.?**

This question gets at the matter of correlation vs. causality. If you just looked at the average incomes of Greek alums and non-Greek alums, you would find that Greek alumni have higher average incomes. That doesn’t mean being Greek had anything to do with it – it could just be that people who are destined to have higher incomes are the same kinds of people who join frats.
But that’s not what we did. We used a technique called instrumental variables analysis, which is capable (under certain assumptions) of determining whether being in a fraternity actually causes your income to go up – that is, if joining a fraternity gives a particular person lower grades and a higher income than they would have had if they hadn’t joined, holding all other individual characteristics about them constant. Our analysis shows that the act of joining the fraternity really does change your grades and your post-college income. Other factors like family background may also contribute to the correlation, and surely they do, but some of the relationship is driven by the fact that being in a fraternity will cause a student’s grades and income to be different than they would have been if that student had not joined a fraternity.

**Q. How does your analytical technique establish that joining a fraternity causes changes in a student’s grades and income?**

A full answer to that depends on understanding the mathematics that lies behind the technique, and we won’t try to explain that here. To give a non-mathematical explanation: Our technique relies on finding a source of exogenous variation in fraternity membership. That means something that makes students more likely, or less likely, to join a fraternity than they would have been otherwise – but has nothing to do with the individual characteristics of the students in question.
We rely on changes in the college’s residential system to provide this source of exogenous variation. Since 1965, the college has done three things that changed the chance that students would join a fraternity – gone coed, created theme houses, and created the Minerva houses. The latter two created alternative housing options that gave students different living choices. Going coed meant that male students could meet women in classes and dormitories; they didn’t need organized events hosted by fraternities to meet women socially anymore. Since these changes occurred for the entire college, they shouldn’t be correlated with whether a particular student is rich, well-connected, socially adept, etc. They also don’t appear to have substantially changed the characteristics of students applying to the college. Since, as we argue that these changes are independent of the characteristics of the students, they can be used to see how those changes, which put more or fewer people into the fraternity system, affect the incomes of those students who (we predict) would have made the other decision if the policy changes had been made.

**Q. Can you give a simple example of how instrumental variables can infer causal effects from exogenous variation?**

Sure. One simple example, taken from a well-known paper that was an early modern use of instrumental variables, deals with the question of how military service in Vietnam affected the post-war incomes of people who fought there. People are not randomly assigned to military service; some people volunteer, others get drafted and serve, some go to college to avoid the draft, others get drafted but find ways to avoid service. These things are all plausibly correlated with income; people with good civilian options are more likely to stay out of the military, while people whose civilian options are not as good (poor education, no connections) are more likely to volunteer or to accept being drafted. That creates a pattern of people who served having lower incomes, even if military service has no actual causal effect on your job prospects.
One way to deal with this is to use the fact that the draft selected people according to their birthdays, which are effectively random; a person who was born on, say, February 21 is not going to be more or less skilled than a person born on, say, November 12. However, if people born on February 21 are, by luck of the draw, drafted while people born on November 12 are not, then people born on February 21 are a lot more likely to serve in the army than people born on November 12, even if their characteristics are otherwise identical. So we can, in effect, use the November 12 people as a control group and the February 21 people as a treatment group, and rely on this natural experiment to tell us how military service affects incomes. Essentially, we look at the average incomes of the two groups, knowing that the two groups are pretty much identical except for the fact that more people born in February 21 went into the military. From that we can infer how much military service causes your income to go up.
Our work is similar; we are effectively comparing alumni who attended when the residential system favored fraternities (e.g., no women students, no Minervas) to alumni who attended when it made other options more attractive (coed, Minervas) and seeing if the cohorts who were more likely to join fraternities, because the college’s policies encouraged it rather than for any reason to do with the students themselves. It’s more complex than that, of course, but that’s the basic idea.

1. **Underlying Reasons**

**Q. How can fraternity membership make such a big difference?**

We are finding a pretty big effect. We think there at least four reasons that fraternity members have higher incomes than non-Greek students, and we think probably most of them are at work, since it’s hard to imagine any one of them increasing incomes by 36%. Taken together, they can more plausibly explain the magnitude of the effect we’re finding.
First, fraternity life develops a student’s “soft skills.” They offer leadership training, and they offer practical experience in working with peers to get tasks done, without a lot of outside supervision. They may help people develop teamwork and communication skills. Most co-curricular actitivies do those things, but because living in a fraternity is such a big part of a student’s experience, it may build those skills to a higher degree than other activities do.
Second, fraternities provide social networks that are very valuable. People can make connections with people in other firms, other industries, other professions through the fraternity network. They may provide mentoring relationships. All of these are things that make an alumnus more productive because of the relationships he has with other people, rather than because of his personal skills.
Third, fraternities may influence what people study and what careers they pursue. Fraternity members may shape their college major and course decisions and career plans in part based on their exposure to peers in the fraternity. They may be more likely to work in finance, or pursue management, or do coursework that leads to high-paying opportunities, because they were exposed to other people doing those things through the fraternity. That’s why our analysis doesn’t keep choice of major, or other things like graduate school degrees, constant. Frat membership probably changes those.
Fourth, fraternity networks may provide opportunities disproportionately to their own members. It may be easier to secure a good starting job, or get considered for promotion, if you are a fraternity brother of some of the people making the decisions about who to hire or promote. In this case, the higher incomes are coming at the expense of incomes of non-fraternity members who are less likely to get the opportunities that are going disproportionately to members.

**Q. That still seems pretty big. What other explanations do you have?**

One important thing to note is that our estimates come, in effect, from looking at the difference in incomes between students who would have joined under one set of residential policies but not under another; they are the people for whom these changes would have altered their decision about whether to join a fraternity or not. We refer to them as “marginal” members because they are on the margin of deciding whether to join or not, enough so that the college being coed, or having themes or Minervas, is enough to get them to get them to change their mind about joining. The effect of fraternities on them is called the “local average treatment effect”, or LATE for short. That group of people is probably not representative of all fraternity members. These are people who could have gone either way about rushing, and they are probably different in a number of ways from, for example, the character Bluto in the movie, who would have rushed no matter what college policies were in place. The fact that these marginal members get a 36% increase in their income doesn’t mean that Bluto gets a 36% increase in his income too – or that Bluto’s grades drop 0.25 points when he joins. The overall effect of the fraternity system on all the people who join it could be quite different from the LATE that we estimate. They may have different reasons for joining fraternities; for instance, they might be joining to seek out social networks, rather than because of the opportunity to drink. If so, that means fraternities might affect them differently than it affects people who would have joined under any set of residential policies, and our results describe the effects of Greek life only on those marginal members. That sounds like a drawback to our research – we can only estimate the effect of fraternity system on some of its members and not all of them. Actually we believe it’s an advantage – we’re measuring the right thing for people who want to think about how to change college policies. The reason is that changes in the college residential policy won’t have any effect on Bluto. If the college is thinking about making changes in its housing system, it should think about the effects that doing so will have on the people who might change their minds about joining a fraternity as a result. That is to say, if the college makes a policy change that will result in, say, 50 fewer people rushing, then it will change the grades and incomes of those 50 people, but it won’t affect (at least not directly) the grades of incomes of anyone else. For making policy decisions, you should focus on the results for the people who will be affected by the change; and those are the people whose effects are described by the LATE.

1. **Policy Implications**

**Q. Does this mean we should open a lot more fraternities?**

No, it doesn’t, for two reasons. First, although fraternity members have higher incomes than non-fraternity members, some of their gains are probably coming at the expense of non-members. Having more fraternities only makes sense if the higher incomes of fraternity members reflect a genuine increase in their productivity, either because fraternity activities develop their soft skills, or because being connected to a network allows them to do things that couldn’t otherwise be done. If the higher incomes of fraternity members come from getting access to high-paying jobs that are reserved for fraternity members, which would otherwise go to different people, then society is no better off because of the higher fraternity incomes, and from a fairness perspective, is worse off. We can’t tell why fraternity members have higher incomes, so we don’t know what percentage of those higher incomes are due to genuine productivity gains, and which are taken from non-Greeks. It seems likely to be at least some of both, so it’s hard to say whether these higher incomes are really a good thing or not.
Second, the grades and incomes of fraternity members are not the only relevant fact when making policy about fraternities. The role that fraternities play in establishing the campus culture, whether that involves alcohol, sexual climate, or the importance of intellectual life on campus, are all important and our paper doesn’t tell us how fraternities affect those things at all. Nor does it tell us whether they are more, or less, important than incomes and grades. Of course, it’s nice if fraternity members earn higher incomes (if they don’t come at the expense of their non-Greek peers), so that might be one reason to have more fraternities. But lower grades might be one reason not to have more. And both of these reasons might be less important than other things, good or bad, that fraternities bring to a campus. Our results are part of that conversation but they certainly do not determine what the result should be.

**Q. Then what do your results imply for college policy makers?**

Two things – think about grades and incomes as two of the many consequences of changing residential policies in ways that increase or decrease Greek participation. Second, since the benefits of Greek life on incomes (and the harm to grades) don’t appear to be related to alcohol use, we might try to reduce the negative effects of alcohol consumption in fraternities, which should not eliminate their positive effects on post-college earnings.

1. **Other Matters**

**Q. What do you mean when you say that alcohol use doesn’t seem to matter?**

We mean that the effect of fraternities on a student’s grades and income don’t appear to be affected by how much they drink. At least for the marginal members, fraternity members who drink a lot, and fraternity members who drink very little or not at all, get about the same drop in their GPA and about the same increase in their earnings. This is one reason we think that part of the fraternity effect is from having students specialize in building social capital rather than human capital. If the reason fraternities lowered your GPA was because of excessive alcohol consumption, the members who don’t drink much wouldn’t have lower grades. They do, and they also have higher incomes like their more inebriated fellow members do, so it’s not the alcohol consumption that’s directly bringing about either of those results. Of course, more drinking is bad for your grades – but that’s true of Greek and non-Greek alike. Instead, we think the GPA drop is coming from people taking time away from academics to do other things besides studying; and those other things are probably what’s contributing to the higher post-graduate income, at least in part. That story ties together several of the statistical results we’ve gotten.

**Q. What about sororities?**

Our survey results include female graduates, and we have looked at the effect of sorority membership on their incomes. However, we have only about half as many observations on women as we do on men. Before the college went coed, all students were male, and for about 20 years after that it was not more than about 40% female. When we do the same analysis for sorority members that we do for fraternity members, our results are too imprecise to say anything meaningful about the effect of sororities on income. We simply do not have enough data. Also, we can’t compare women who graduated after the college went coed to women who graduated before it went coed, because, by definition, the latter cannot exist. That takes away one of our three policy changes that we use to identify Greek effects on grades and income, and make our technique less powerful.