HEATHER BROTSOS: All right. Good afternoon everyone, and welcome to our inaugural Student Research Expo. My name is Heather Brotsos, and I'm a Deputy Director at the Bureau of Justice Statistics and your host for today's event. Go to the next slide, please.

We have an action-packed agenda today, highlighting 10 student research projects, spanning the criminal justice system. You can access the full program at the link provided in the chat to read more about the students and their projects. Before we dive into the student presentations, we're privileged to welcome Kevin Scott, Acting Director of the Bureau of Justice Statistics, and Natasha Frost, the Vice President of the American Society of Criminology for some opening remarks. And after the presentations, Min Xie, American Society of Criminology Executive Counselor, will provide closing remarks.

I must also state that while we are absolutely thrilled to share these student projects with you today, the opinions in these presentations are those of the presenters and do not represent the official positions or policies of the Bureau of Justice Statistics or the U.S. Department of Justice. Next slide.

And finally, this event would not be possible without our incredible mentors. Thank you to our BJS and ASC mentors for the coaching, guidance, and mentorship you have provided to these students throughout the process. Let's give our mentors a virtual round of applause. And now, special guest in my office, please welcome Kevin Scott, Acting Director of the Bureau of Justice Statistics, followed by Natasha Frost, Vice President of the American Society of Criminology for opening remarks.

KEVIN SCOTT: Thanks, Heather. Technical difficulties solved by physical relocation. On behalf of BJS, I want to welcome you to the first of what we hope are many BJS student research expos. It's my pleasure to kick things off and I am as excited as you to see the research presentations that are why we are all here today. I'm excited to see such interest in the use of data in the criminal justice system, and of course, I'm particularly excited to see how data collected by the Bureau of Justice Statistics is put to good use by such a wonderful group of student researchers. For those of you who don't know, the Bureau of Justice Statistics is one of 13 principal federal statistical agencies. We are housed in the U.S. Department of Justice and our mission is to collect, analyze, publish, and disseminate information on crime, criminal offenders, victims of crime, and the operation of the justice system at all levels of government.

We’re turning 45 in a couple of months. And in the past 45 years, we have developed and administered data collections at all stages of the criminal justice system, from victimization to arrest, adjudication, sentencing, incarceration, and [INDISTINCT] reentry. Today's presentations use data from many different stages of the criminal justice system and from several different BJS collections. While BJS data collections play an important role in the presentation, the real stars of the show are the students who have worked imaginatively and creatively to analyze those data and to help us all better understand key features of the criminal justice system. This, for us, is a great opportunity to see others using our data and we're excited about today for that very reason.

In addition to the students you will see today, as Heather mentioned, I want to thank BJS statisticians and ASC mentors who have worked with today's presenters. I'm sure our team and the ASC mentors have learned more from today's presenters than the other way around, and we are all so glad for this opportunity. I also want to thank Heather Brotsos, who is the BJS Deputy Director of Statistical Programs, for conceiving and executing this webinar. I want to thank the American Society of Criminology represented here today by Vice President Natasha Frost and by Min Xie for collaborating on this project. Both ASC and BJS are interested in your feedback on today's event. Without further ado, let me hand the mic over to Natasha Frost and then to our student researchers. Thank you.

NATASHA FROST: Hello everybody. Nice to see you all. Natasha Frost. I'm Vice President of the American Society of Criminology. And I'm really here to provide opening remarks on behalf of the President of the American Society of Criminology, Val Jenness, the incoming president of the American Society of Criminologists, Katheryn Russell-Brown, and myself, who will be president in 2026. So we call ourselves the presidential team, and we were very excited when Min Xie revived our collaborative research initiatives committee and decided to pursue new opportunities with the Bureau of Justice Statistics and other federal organizations. And this is really the first initiative that we've launched in quite some time, thanks to Min Xie's hard work with BJS. And we're very, very excited to be supporting students in their research as they collaborate with BJS and use BJS data to conduct research.

It fits really well with our mission at the American Society of Criminology and really advances our interests in involving students more in the American Society of Criminology and in showcasing the work that they do. The American Society of Criminology is really grateful for the effort that BJS staff have put into building this

webinar and to all the presenters and the ASC mentors who have helped prepare the students. We are very much looking forward to today's presentations. And once again, thank you and congratulations on joining us for this webinar today.

HEATHER BROTSOS: Thank you, Kevin and Natasha. All right. Our first presenter is Calvin H. L. Cho, who's studying Biology at Duke University, and is passionate about policy issues in the life sciences and healthcare sector.

His presentation is titled "Investigation of Forensic Crime Lab Characteristics and their Impact on Competency Testing Results."

CALVIN H. L. CHO: All right. Thank you for the introduction. Good afternoon and good morning everyone, and thank you all so much for joining us today. My name is Calvin and my project, I said before, was on the investigation of forensic crime lab characteristics and also their impact on the competency testing results variable. The data set that I decided to take a look at was the census publicly-funded crime laboratories, which was conducted in 2020. This census collected data on forensic crime laboratories across the nation. And to briefly summarize what forensic crime laboratories are, they're the science centers that law enforcement will often turn to for a scientific analysis.

So, if you're wondering where they take the fingerprints from the crime scene to analyze it, this is basically where they do it. When I was taking a look at the dataset, I noticed an interesting variable, which was competency testing. So competency testing is done to literally test the competency of both the process or machines or the researchers that are in these labs. Much of the standard set for these labs are done either internally through their respective accreditation boards or through an external party. But in specifically this data set, this variable is supposed to represent the percentage of centers that actually conducted them in the past year. Something interesting that I noticed was, depending on where these centers were receiving funding, there were notable differences in this variable.

So, for example, with federal centers and state centers, this percentage, they were usually in the low 90s, whereas for county centers, it was 85.5%. And for cities/municipal centers, it was at 77%. So, we can see a big decrease as we go down the chain. At first, because much of this data and the background research is on funding, I thought it could be possible that there was maybe huge total budget or budget per case differences and quickly tested it out on an Excel sheet, which you can kind of

take a look at on the bottom left there. But upon doing this, I found that the total budget by center and also the budget per case, didn't really tell a story or a match up in order. One thing you'll see there is that federal agencies, which had the highest competency testing variable, did indeed have the highest budget per case.

But the second highest budget per case centers were actually the city/municipal ones despite the fact that they had the lowest competency testing rate. So, in order to decipher what other variables could be coming into play here, I decided to go through the protocol and see what other variables could be at play. So the four that I decided to take a look at here was the type of requests that they get, the oversight variable, which is just what type of agency runs these labs, the structural score, which is something I made. So it's seven yes or no variables that I thought would do a good job at determining whether there are good performance structures in place. And the relative average budget per employee for both full-time and part-time employees.

And then just to cap up methodology, I ran linear regression across all four of these variables here. So, to go one by one, one of the more expected variables was definitely the distribution of types of requests by agency. So one of my hypothesis going in was that maybe some of these centers are doing notably different types of projects. So, the four biggest types of projects were DNA, firearm, latent print, and toxicology requests. So, I thought depending on which type of requests a lab usually get or type of lab usually gets, I thought this could be heavily affecting the competency testing variable. One of the things that I did actually notice here was, when I ran linear expression on all four of these variables, only the latent print request had a p-value that had below 0.05. Meaning that, besides the latent print variable, DNA, firearm, and toxicology requests didn't seem to have a positive correlation.

So, the, I guess, statistical conclusion here was that if a lab takes out more latent print requests, it's more likely to be doing competency testing results. The next variable that I took a look at was the oversight variable. So there's really three main types of overseeing agencies. So, it's law enforcements, public health agencies, and then also the local government agency here. In this case, upon running linear regression, I actually couldn't find any variable that was below 0.05 with the p-value, indicating the fact that there might not be as strong of a correlation. But this gets kind of evident, not just in the p-value or the linear regression, but also in the chart as well. You'll see that in the chart, which is the top right here. Of most of the oversight is actually under law enforcement. So, it makes sense that it's not the best predictor variable here.

The third factor that I decided to take a look at were the structural factors. So here, I put together a seven yes or a no variables, which were, do they have a code of ethics? Do they have regular training intervals? Do they do verification checks? Do they have a strong management system in place? Do they have accreditation boards? Do they have a lot of research resources and do they do random case reanalysis? Here, the chart finds that federal agencies tend to have a higher structural score when compared to city or county agencies. But when we actually take a look at linear regression analysis, it becomes actually pretty clear that even if you have a strong structure, the p-value could be low. So, in this case, it was 0.03, but it actually had a negative estimate, which means that if you have a higher structural score, you're actually less likely.

But this negative estimate was actually extremely small, indicating that it has maybe some role, but it has a very limited role. And then the final variable that I decided to take a look at was the budget allocation for each employee. So for this, I put it relative to federal agencies. In this case, this was just the total budget divided by the number of employees. In this case, you can see healthy relative budget per employees kind of distributed across different agency types. And notably here, we can see that federal agencies allocate more budget per employee compared to city and county agencies. And the regression analysis for specifically full-time employees and the budget for full-time employees suggests that there is a positive impact on competency testing with the significant value of 0.03 in this case.

So, this indicated that better funded full-time staff members in a specific type of lab. If you have better funding there, you're more likely to be doing competency testing as well.

So, the final conclusion in this investigation was the fact that agency structures and oversight generally have limited direct impact on competency testing and factors such as budget allocations for specifically full-time employees and also the types of cases that are handled by the type of lab, particularly latent print request. They play a very important role in enhancing whether a lab is performing testing here. And before I end, thank you to my ASC and BJS mentors, Matt Hickman and Matthew Rose. And also, thank you to the Bureau of Justice Statistics for hosting this program. Thank you.

HEATHER BROTSOS: Thank you, Calvin. Our next presenter is Gemini A. Creason-Parker, who is a multidisciplinary scholar pursuing a doctorate degree in Criminology at Texas State University. Her presentation is titled "Rape Myths in Numbers: The Relationship Between Stereotypical Case Characteristics and Arrest Outcomes."

GEMINI A. CREASON-PARKER: Hello everyone. My name is Gemini Creason-Parker, and I thank you for being here today so I can share my research on rape myths and rape case outcomes. So to begin, let's talk about what rape myths even are and why they matter. Rape myths are false beliefs and stereotypes about rape victims, offenders, and the crime itself. And these can include comments and phrases like, men can't be rape, and if they were raped, then they're homosexual, as well as a woman can fight back off of rape, if she really tries, but if she doesn't, then she obviously wanted to be raped. And as I'm saying these phrases, you all can likely think of at least one rape myth that you've heard from friends or family or even the media. And the reason why we care about rape myths is because they contribute to this overarching rape narrative, which tells us what's determined to be legitimate or real rape.

So, when cases align with rape myths, they're more likely to be seen as real than when they don't. So when the offender is Black and the victim is White, it's more likely to be believed than if those are reversed. Or when the victim is female and the offender is male, things like that. And this leads to silencing victims. And we know this because rape is one of the most under-reported crimes that there are. In relation to law enforcement, the police are not exempt from rape myth acceptance, or RMA. And research has demonstrated that this can influence how they investigate crimes and whether or not victims get justice. And as arrest is a case outcome that indicates the first stop for justice, it's important to understand how rape myths and arrest outcomes go hand in hand. So for my project, I used two research questions.

First, of rapes that are known to law enforcement, to what extent do they align with traditional rape myths? And second, to what extent are rapes that fit traditional rape myths more likely to result in arrest than those that do not? For my analysis, I relied on national incident-based reporting data from 2020, and I had five independent variables. And these variables are reflective of myths that I was able to identify in the NIBRS Codebook. So that most rapists are strangers to their victims, a person can't rape their spouse, if the victim doesn't present with physical injuries, then it probably wasn't rape, that most rapists use weapons, and that most rapists are under the influence of alcohol and/or drugs. For this analysis, I had one dependent variable, which was arrest, and I controlled for victim and offender age, race, and sex.

To analyze the data, I used a logistic regression model with a zero-one coding scheme. And what this means is that one indicated that the case did align with these myths, whereas zero indicated that it did not align with the myths. In order to narrow the scope

of my analysis, I only chose cases that involve rapes, which is a specific term, where there was one female victim and one male offender, and where both of them were over the age of 18 years old. This resulted in an N or cases of 20,214. The results of my study showed that three of the five independent variables were supportive of myths. So offenders were 48% more likely to be arrested when the victim did have a physical injury. They were 56% more likely to be arrested when the offender did use a weapon, and they were 5% more likely to be arrested when the offender was suspected of being under the influence of alcohol or drugs.

I found that one of the variables was actually contrary to the myth. Offenders were 59% more likely to be arrested when the offender was the spouse of the victim. Whereas we would think that based on the myth, they would be less likely to be arrested when they were the spouse of the victim. And then I found that one of the variables was not statistically significant, and that was the stranger relationship to the victim between the victim and the offender.

So in conclusion, what I found was that there was partial support, more so than not, that when cases align with rape myths, they're more likely to result in arrest, which as I mentioned before, is the first stop on the train to justice for these victims. What this means is that victims are more likely to receive justice when their cases align with rape myths, which is problematic, especially for victims whose cases do not, because they may not receive justice.

And how this relates to law enforcement is that it suggests that we need more training for police officers to combat that rape myth acceptance. Some limitations, like any research project that I identified, first, my analysis doesn't include cases where there were multiple offenders or cases where their victims were male and the offenders were female. And probably the biggest limitation is that this only accounts for reported rapes. And as previously mentioned, rape is a severely under-reported crime. In terms of future research, there is a plethora that can be done. First, I think removing and adjusting the control variables and comparing the results would be interesting. So for example, are cases where the offender is a person of color and the victim is White, more likely to align with myths and are they more likely to end an arrest. Just one example.

Longitudinal data analysis might also be interesting where we look at multiple years of NIBRS data to see how alignment and arrest outcomes may vary by year. And then considering additional datasets, which goes to the limitation that my analysis only accounts for reported rapes. So, this would enable the comparison of cases that are

and are not reported and their alignment with myths, specifically if we use NCBS data. And then lastly, accounting for different sexes of victims and offenders, as well as cases involving multiple offenders, which again, goes to one of the limitations specifically. So thank you for your attention today and thank you to BJS for hosting me. I appreciate the opportunity to share my research.

HEATHER BROTSOS: Thank you, Gemini. Our next presenter is Sonya Eason, who is studying Statistical Science at Duke University, where she applies her passion for using statistics and data science for social justice. Her presentation is titled "Predictors of Prisoner Access to Healthcare."

SONYA EASON: I'd like to start off with the statistic. Forty percent of state and federal prisoners in 2016 had a chronic medical condition. There's clearly health problems in prison, but how do we start to understand them? What if we start the story at provider access? And who even gets to see a provider in the first place? When we think about it, there's many reason to go to the doctor. We go to the doctor because we're ill. We go to the doctor for general checkups. We go for injury. So, does medical history tell us anything about the likelihood of seeing a provider? Well, we could explain a lot of existing associations through stories or explanations. We may think of, for example, we may say, "Someone who is sick is more likely to get the doctor because they need to receive treatment." We could also say that people who are sick tend to be more disadvantaged and struggle to access healthcare as a consequence.

So, then the dynamics totally change in the context of a total institution, like the prison system. Because less is about individual choice and more is about standards of a system. We're trying to paint a picture that helps us understand who is accessing providers in prison. And we're piecing together a puzzle about this. Which pieces belong to this puzzle? That's a question. How do we see this picture more clearly? So, under the assumption that race, sex, time served in prison are already crucial to predict provider visits, to predict whether someone has seen a provider since being admitted to prison. How much can medical history tell us? Right? Medical history is vast and variable. And within medical history, we have a variety of conditions. We have very common medical conditions. Things like hypertension, asthma.

And we have less common medical conditions. Things like cirrhosis of the liver, hepatitis. Right? So my question is, are less common medical conditions actually informative of who is seeing providers? Are they good predictors of the likelihood of seeing a provider since prison admission? So, in order to do this project, I set about

more of a model building strategy. What I did was built three categories of models. Models that looked at all of the baseline variables that I had previously stated, like the demographic information, time served in prison. But the only medical history variables they added on top of that would be the most common medical conditions. The three most medical common medical conditions we saw. The second thing was a category of models that looked at only the three least common medical conditions on top of those baseline variables previously mentioned.

And the third category of models looked at both the most common medical conditions and the least common medical conditions. Within each of these three categories of models, two versions of a model were built. A model that modeled simply the basic level effects, so the individual effects of each variable. And then a model that looked at interactions or potentially how different variables could change the effect another variable has on predicting an outcome. So, basically, under the method of building interaction models, I just incorporate all significant interaction terms. From here to actually see whether less common medical conditions, the information of the least common medical history variables was informative. To test that, I collected metrics that essentially saw how these models would perform on new data, with the idea being, that if models that incorporated less common medical history variables perform better, that they did pay the cost, in fact, of the complexity that those terms added. With model building, there's this idea of cost and reward. Right? Maybe we get information from a variable, but the complexity it has and add to the model has to be justified. So, that's what these metrics are really testing for. Right? Is the performance sufficient? Is the performance sufficient from adding these terms? Is it worth it? And from here, I also checked model conditions to make sure we satisfied some of the logistic regression requirements. What I ended up finding from this project was that our initial question about how much insight was actually gained from the less common medical history condition variables is that we actually gained sufficient insight. Because our best model was that which incorporated all conditions, the less common medical history conditions and the more common medical conditions. Right?

That model was able to optimize both the ROC, AUC values and AIC value. What does this tell us? Right? What is the implication of this? Well, immediately, it kind of suggests a value of collecting more medical history information, including that about less common conditions. But it also was insightful into building a model like this moving forward. I think it's really insightful to go and build a model that predicts provider visits, because eventually, we get to the point of being able to see clear associations. Right here, there's not a lot of factors included. But, as we continue, we can kind of establish

associations that could eventually drift into causation if we rule out all alternative explanations. So, I'd like to highlight some limitations of this project. I think that's extremely crucial. Backing off of what I just said, we cannot assume causation from anything established here.

We do not know that these medical conditions are causing people to see providers. In fact, like, we could probably justify a lot of other explanations. We could justify, like, maybe a reverse causation. And we could say, associations that exist could be not because someone who is sick sees a provider, but because someone who sees a provider gets diagnosed with an illness. So, there's that problem. There is the issue of causation at all. We're not generalizing causation at all, because there are so many alternative explanations for increased likelihood of provider visits based on these conditions, that it's not sufficient to look at a few terms and justify any sort of causation yet.

The other limitation I'd like to highlight from a statistical perspective is potential spatial relationship that we're accounted for here. So, specifically, I'm referring to the reason reason that there may be differences between patient to patient or prisoner to prisoner may be more about the prison or the location of the prison or the prison system they're in. And that would suggest spatial relationships and lack of independence, which is important. The reason I couldn't test for this was because that data is suppressed in order to respect the privacy of prison inmates and protect them, so that makes sense. Moving forward, I think it would be super cool to actually go beyond association and try to figure out what are all possible explanations and how do we get at ruling them out. And yeah, I'm super thankful for BJS for this opportunity. Thank you all for listening.

HEATHER BROTSOS: Thank you, Sonya. Next, we welcome Annabel Fay, who is a third year PhD candidate in sociology at the University of Colorado Boulder. Her presentation is titled "Severity and Composition of Illicit Substance Use Among Juvenile Offenders."

ANNABEL FAY: Good morning or afternoon, everyone. Again, my name is Annabel. So my research project is looking at the substance abuse offending relationship. Here, I used the National Survey of Youth in Custody, NSYC-3, for this, which is part of BJS's Prison Rape Statistics Program. So the reason why I picked this data set is because there is a lack of nationally representative, generalizable data about substance use here, specifically illicit drug use. There are existing projects, some very well-established longitudinal ones, the Northwestern Juvenile Project for example, which focuses

specifically on arrested and detained youth. Also Pathways to Desistance, which is also adjudicated youth, but they picked their sample based on the seriousness of offense, whereas NSYC-3 was just all adjudicated youth. So they share that same status, which is unique in itself.

So here, because of the lack of data and the availability of NSYC-3, this looks at the composition of illicit drug use among juvenile offenders. The secondary goal was to identify patterns of use within subgroups. And I will say that this is a tripart project. This is just the preliminary stage, but I felt it was very important to show this stage of it to get an understanding of why I was even looking at these relationships. So the sample is roughly 5,000 and about 15% are females. Again, the second part of this is going to be regression models, but here I just ran chi-squared tests on sex race-related differences. So some of the findings. Generally, I can say that there were a few trends in cannabis, prescription painkillers and anxiety medications, and cough syrup with the most widely reported across all groups. So that is a generalizable claim.

Past that point, they get a bit different. So you've got race differences first, I'll go over race, ethnicity. White and Hispanic youth report across the board higher levels of drug use. Females also report higher levels of drug use than males in general. But when you break it down into six race ethnicity differences, this is where things start to change within subgroups. Hispanic females report the highest level of drug use among all subgroups. White females also report similarly high, but not as significant. And this heat map here, so it's slightly nontraditional, but what I wanted to do was demonstrate this—there's 16 different drug categories, which was intentional by the way. I wanted to make sure those were isolated because they're very different drug types but I wanted to show that as well.

The heat map represents p-value significance. So the more blue, the more significant. I thought red was a bit offensive to go with, so I stuck with the blues. But again, relying on sex differences, that doesn't necessarily speak to the whole population. In that, yes, Black females are more—their drug use is higher, but across the board that group has the lowest. So there are complications within that, but it speaks to this idea of wanting to take an intersectional approach. As I said, there are patterns across the board, but they're not generalizable to either sex, race, or ethnicity. That is why, again, I propose an intersectional approach to this. More broadly and in literature, substance abuse and re-offending. A lot of people are interested in the pathways of how you get into the system, who is the most at-risk youth, for example.

Of course, that is highly, highly important, but the directionality of that relationship has been an argument among researchers for a long time. For example, what other environmental factors contribute to drug use. The difference here is that youth, there is an established relationship between substance use and re-offending. So the reason why it's important to focus on these subgroup differences and have reliable data on drug use is that way you can identify the most effective methods of intervention and treatment for youth. And youth wasn't within the system need specific treatment for specific drugs, but you can't make the generalization of girls versus boys or race ethnicity. So this is about substance use prevention while they're in custody. And that's my presentation. Thank you so much. And thank you to BJS and ASC for this opportunity. Thank you.

HEATHER BROTSOS: Thank you, Annabel. Our next presenter is Kristen M. Fite, who is a second year graduate student pursuing a master of arts in criminology at George Mason University. Her project is titled "The Role of Citizenship Status in Help-Seeking Behaviors and Reporting to Police Among Domestic Violence Survivors."

KRISTEN M. FITE: Thank you. Yes, my name is Kristen Fite. And as Heather said, I am a student at George Mason University. And my research interests center around victimization and violence against women, as well as how police legitimacy may impact or intertwine with these concepts.

So, the current project I'll be discussing today focuses on domestic violence victimization specifically through the lens of immigration, and what factors related to that may impact both police reporting and other help-seeking behaviors. So for this study I'm utilizing the National Crime Victimization Survey, the NCVS, which if anyone's not familiar with it is a nationally representative self-report survey administered to people 12 years and older within a random sample of households in the United States. And in 2017, the NCVS added additional questions to capture demographic information, like sexual orientation, immigration, citizenship status.

So, I used the 2017 to 2023 iterations of the NCVS, specifically looking at immigration status as an independent variable. This is because while domestic violence reporting can be influenced by several factors such as victim demographics, like age, sex, education level, as well as offender characteristics and characteristics of the incident itself. I was interested in understanding how citizenship status in particular may act as a predictor of these formal help-seeking behaviors. So, my two research questions included, first, whether immigration status impacts the odds of DV victims reporting that

incident to the police. And secondly, whether immigration status impacts the odds of victims of domestic violence accessing support from victim service agencies, so that's how I operationalized the other forms of help seeking that I was interested in.

So, as I mentioned, data from the 2017 to 2023, NCVS survey was used. My final sample size was 2,746. I ran diagnostics for this data set, which indicated no issues with multicollinearity, and missing values were also minimal, so I went ahead and moved forward with my analysis. For the first research question, I coded "reporting to the police" as a dichotomous yes or no binary variable, so binary logistic regression analysis was used for that one. And then similarly for the second dependent variable of help seeking, that was also coded as a dichotomous yes or no. So, another binary logistic regression analysis was used there as well. And both of these models had 10 other control variables, as well as independent variable of immigration, again, to account for those other influencing factors such as victim demographics, incident severity, things like that.

So, I first want to discuss this interesting finding in the graph, which I apologize, the labels are really small, but if you're able to pull up the full thing on your own, you can see that this indicates differences in reporting or non-reporting to the police by both immigration status and racial and ethnic minority. And the most interesting finding here that I found was minority non-citizens. So non-citizens who identified as either racial or ethnic minority were actually more likely to report to the police in this sample. So that was also seen in my regression analysis results as well. My immigration variable was significant for the model, including immigration on police reporting. And the odds ratio was 1.145. So again, indicating that immigration status, or in this case, non-citizenship, is significantly associated with a higher odds of reporting to the police.

And while my research question did not necessarily make any predictions as far as the direction of the relationship, it would be logical to think that non-citizens might be less likely to report to the police. So, that was a really interesting and surprising factor that I found in my results.

So, you can also see that I reported the significant variables for the help-seeking model, none of which included my independent variable of immigration. But again, the result that minority non-citizens was very interesting and somewhat surprising. And I think that immigrants reporting and perception of the police can definitely be influenced by the experiences they've had in their country of origin, if they've had positive experiences with the police in the past, or if they have this positive perception of the law and law

enforcements, then they might be more likely to carry those through to their experiences here.

But I also think this might be an indication of perhaps support networks might be limited among immigrants. And in this case, this indicates perhaps more so within racial and ethnic minority groups of immigrants. So while this was not necessarily the finding I expected to find, this was a very interesting result that was again seen in both my descriptive and regressions statistics. But I would love to study this further. I think that the third party reporting statistics could be different depending on both immigration status and race and ethnicity, so that would be really interesting to look into. And the NCVS also asks questions as far as why or why not did a victim report their incident to the police.

So, I would love to take a look at whether those responses differ by immigration status as well and see if there can be any other discrepancies that we can find between these groups to better understand the relationship between. So I would just like to thank both my ASC and BJS mentors as well as both groups for putting this on. I really appreciate it. Thank you.

HEATHER BROTSOS: Thank you, Kristen. Our next presenter is Salpi S. Kevorkian, who is a doctoral student and presidential fellow in the International Crime and Justice Program at Florida International University. Her presentation is titled "Organized Crime and Challenges Faced by Tribal Law Enforcement Agencies."

SALPI S. KEVORKIAN: Thank you, Heather. I'd like to thank BJS and ASC for this opportunity. I'd also like to extend my sincere gratitude and appreciation, Dr. Emily Wright of the Urban Institute, and Mr. Steven Perry of BJS for their time and assistance with this project. The title of today's presentation is "Law Enforcement Challenges and Barriers in Indian Country: Assessing Impact on Drug Trafficking Arrests." So as a little bit of an introduction, Native American reservations and tribal lands face significant challenges with and vulnerabilities to illicit drug trafficking. And this has led to some of the highest drug overdose fatalities, particularly from methamphetamine use, which is notably higher in these communities as compared to the rest of the U.S. population. Tribal law enforcement agencies then go on to encounter significant challenges in crime response and prevention.

This is due in part to staffing challenges, inadequate technology and infrastructure like limited broadband, low levels of funding, and complicated jurisdictional issues, which

are related to complexities associated with navigating tribal sovereignty, federal Indian law, and cross-deputization agreements between tribal, state, and local law enforcement agencies. All of this, of course, can lead to jurisdictional confusion. Little, however, is understood empirically about the specific challenges facing tribal law enforcement agencies in addressing crimes in Indian country.

So, if you navigate over to the left side of the poster, the purpose of this research study is to explore these barriers and challenges further. So this study centers on using data from the Census of Tribal Law Enforcement Agencies, or CTLEA, data set to test the associations between specific tribal law enforcement agency challenges and barriers and two outcomes.

Methamphetamine sales or distribution arrests and opioid sales or distribution arrests during calendar year 2018. And this is really to answer the following research question. "Which of the following barriers and challenges faced by tribal law enforcement in improving public safety in tribal communities results in higher odds of drug arrests?" So navigating to the middle of the poster, we have the methods section. Again, the present study focuses on calendar year 2018 data on tribally operated agencies. These are operated by the tribes themselves and receive funding from multiple sources. These agencies are different from the Bureau of Indian Affairs or BIA agencies that are instead federally funded. There were 23 cases in that data set. Those were not included among tribally operated data.

There were a total of 215 cases. And when accounting for variables with no missing data, the analytic sample size number for the present study ended up being 208. The predictor variables used in this study included a creation of variety indices for authority, funding, and equipment and technology access and use. Authority was created as a variety index for type of offenders that the officers from their responding agency had the authority to issue either citations or arrests to for either crimes and/or tribal code violations that occurred on tribal lands. Another example, in addition to the one listed on the poster includes non-Indian offenders with non-Indian victims. And so this variable seeks to capture some of the jurisdictional complexities faced. Funding was also created as a variety index for multiple sources of funding received by the responding agency.

Some examples include federal state grants and private. And finally, a variety index was created for equipment and technology to capture some of the types of equipment available to officers in that responding agency. Two controls that were used, agency

office size and the natural log of the population. The analytic plan first involved examining bivariate correlations to determine initial associations among these variables. And even though there's limited room to showcase these, a bivariate correlation cutoff point of 0.8 was included. None of the correlations exceeded 0.78, which was the largest in between the two outcome variables, which was expected. After which I estimated a series of separate logistic regression models to predict meth arrests and opioid arrests in 2018, all analyses accounted for clustering by tribe.

And multicollinearity checks were run among the variables in the model with Variance Inflation Factor, or VIF, tests indicating that there is no problem with that adversely impacting the regression results. In the present study, I used the 0.05 level of significance for determining a salient relationship between one of the predictor variables and the odds of conducting arrests for meth or opioid sales or distribution. And if you'll notice on the bottom right-hand side of the poster, the asterisks denote the p-values with one suggesting less than 0.05, two suggesting less than 0.01, et cetera.

So, looking at the table, just to go over this, if you don't mind starting looking at the left-hand side, using authority as a predictor variable, we find that for every one unit increase in authority to, again, issue citations or arrests to offenders for crimes and/or tribal code violations occurring on tribal lands, the odds of conducting arrests for meth sales or distribution increased by 14%.

Looking over then to the right-hand side, for every one unit increase in authority, the odds of conducting arrests for opioid sales or distribution increased by 9%. And as you can see, even though the effect is in the positive direction, it is not significant. Jumping down to the next line for funding, for every one unit increase in funding, the odds of conducting arrests for meth sales or distribution on tribal lands in 2018 increased by 36%, whereas the odds of conducting arrests for opioid sales or distribution increased by 27%. And lastly for technology, for every one unit increase in the number of technology and equipment available to officers, the odds of conducting arrests for meth sales or distribution on tribal lands increased by 24%, whereas the odds of conducting arrests for opioid sales or distribution increased by 42%.

So, in some, just to recap the magnitude of the effect, as we just saw was strongest in the association between equipment and technology access and use and opioid arrests and between funding and methamphetamine arrests. These two factors might be particularly useful in the apprehension of drug offenders and dismantling illicit drug distribution networks on tribal lands with again funding demonstrating particular

significance and meth arrests and access to equipment and technology demonstrating particular significance to opioid arrests. So to briefly touch on limitations, first, there's limited variability among some key variables, such as law enforcement agency office size that was used as a control. Second, this is a relatively small sample size. Third, binary arrest outcome variables for drug sales and distribution are limited in scope and not the single best indicators to use. And fourth, there's limited representation among federally recognized tribes in this data set.

But to conclude, some important future directions to consider are, first, leveraging and combining multiple data sources to provide a more comprehensive analysis and to source additional meaningful indicators, measures, and controls, particularly those that are relevant and culturally tailored. Two, revisiting analytical strategies, particularly to explore potential mediators in this research question and, of course, analyzing the upcoming 2024 CTLEA for emerging patterns and trends. And with that, I conclude my presentations. Thank you very much for your time.

HEATHER BROTSOS: Thank you. Our next project is presented by a team. Samuel King is a senior at Boston College majoring in environmental studies and political science. Erin Yenawine is a junior at University of Tennessee at Chattanooga, studying economics and political science. Their project is titled "An Examination of Key Factors that Correlate with Human Trafficking in the U.S."

SAMUEL KING: All right. Thank you so much, Heather. Yeah, we're here presenting work that we began over the summer at Southern Methodist University. So we would like to give a big shout out to Dr. Beth Wheaton-Paramo, Mateo Langston-Smith, and Dr. Eric Godat to as well as Dr. Amy Farrell from Northeastern University for all of their help. They were so great for us. So our research delved into what geospatial factors correlate with higher incident rates of human trafficking reporting in the United States. So specifically, our research question was, "Do sexually oriented businesses, airports, highways, casinos, or demographics geospatially correlate with higher rates of human trafficking incidents reported by law enforcement?" So nearly all human trafficking data are guesstimates.

So, because accurate data frequently does not exist due to the difficulties of detecting human trafficking, this creates a challenge for those studying human trafficking, a challenge which the Human Trafficking Data Warehouse at SMU is trying to combat. So a couple of definitions for our project. Human trafficking is the use of force, fraud, or coercion to obtain some type of labor or a commercial sex act. And sexually oriented

businesses are defined as strip clubs, retail stores, and theaters providing adult content. And supporting our sort of research direction, research literature has suggested that there is a geographic pattern to sex trafficking.

ERIN YENAWINE: Yeah. So when we were structuring our question, we first looked at data specifically from the city of Dallas isolated because we're able to get a better granularity at the city, county, district level data. So right in the center of the poster, you can see that at the district level, from white to blue, there is a clear level of severity and human trafficking incidents in the city of Dallas in the top left district. Correlated with that are the number of sexually oriented businesses in this area. We also observed that this area is right between two major airports and there was a major highway running through it. So these kinds of variables we wanted to include when we were extending our analysis to the national level. In doing so, we use the National Incident-Based Reporting data for 2019 to 2021 on human trafficking incidents, both sex and labor trafficking.

So, you can see in the bottom left, human trafficking incidents, at least that are detected and reported to NIBRS, is relatively low. Between 1,000 and 3,000 incidents for the three years that we used. We limit our analysis because of this to states where over 90% of the population was covered by actively reporting agencies within these three years. And the incidents were matched by reporting agency, because that's the smallest level of granularity to the nearest municipality and grouped by county. We then collected data using the application programming interface to find adult entertainment venues and casinos within the counties that we were observing. So we limited that to cities with greater than 100,000 people and then grouped that to the NIBRS county-level data.

We also used a few other demographic variables, including poverty level and population density from the American Community Survey, and airports and highways within those counties as well. So overall, we are left with 212 reporting agencies within 26 states across the United States. And once this data had been cleaned and collected to counties, we conducted both the ordinary least squares regression analysis, as well as a Pearson correlation matrix in order to see if there was any correlation between the factors that we had identified on the national level. And unfortunately, both of these analyses were shown to be statistically insignificant. It's still important to note that there was a loose positive correlation most strongly with sexually-oriented businesses and human trafficking incidents per capita, as well as casinos per capita and human trafficking incidents per capita. So at the data granularity level that we were at, these were the results that we saw.

SAMUEL KING: So, in conclusion, on a limited, but more geographically specific data set, such as the one that we were able to get from the City of Dallas, correlations were much higher to the point of statistical significance.

But over the national scale, we could not create or not find the same level of statistical significance. A lack of geographic specificity from the NIBRS data itself may have resulted in these weaker correlations as we're only able to get down to the agency level, which brings me to limitations. The locality of data on human trafficking, reduce the accuracy of our assessment of spatial relationships. And additionally, we use -the most recent data available, which was from 2019 to 2021. So, as you can see from the chart on human trafficking incidents per year, there was a dip in 2021 likely due to the COVID-19 pandemic. But further research directions we hope to be able to pursue are using more specificity as well as other factors. That concludes it for us. Thanks everyone for listening.

ERIN YENAWINE: Thank you.

HEATHER BROTSOS: Thanks, Erin and Samuel. Our next presenter is Abigail Moody, who is a second year master's student in statistics at the University of Vermont. Their project is titled “Examination of Parent Incarceration in Vermont.”

ABIGAIL MOODY: Great. Thank you, Heather, for that introduction. So today, I would like to talk to you about my project on comparing Vermont state and national data on parental incarceration. So, in recent years, policymakers in Vermont have started to figure out how to mitigate the effects of parental incarceration for children with incarcerated parents in Vermont. And I found an opportunity as a statistician to help support them in that mission with gathering statistics and analyses related to the parental incarceration situation.

But before that happened, I needed to understand what the current scope of parental incarceration data was and then see how we can use that data and compare that data to help support these policymakers. So for this project, I took two surveys. One was the 2021 Prison Research and Innovation Network survey, which was a community engaged approached survey, which focused on prison climate and culture within Vermont prisons. And then the second one I chose was the national BJS prison of survey inmates, the 2016 version. And then I used both of these and took about three comparisons from each to do my analyses.

So, the first one, just as a general overview, I used the Survey of Prison Inmates, about 47% of incarcerated individuals are fathers of minor children. And then for the Vermont PRIN Study, about 53% of incarcerated individuals were fathers of minor children. If you look at these confidence intervals, the percentages are pretty similar. And so this kind of gives us a good baseline for the further comparisons.

For the first comparison I did for the Vermont prison, they had a question, "Before entering prison, I was an active part of my child's life." And most people either agreed or strongly agreed with this statement. Then I compared this to the SPI question, "Were you living with your children just before your arrest?" And 43% of people said that they were living with their child at time of arrest. For this comparison, I needed to make the assumption that if the parent was living with their child at the time of rest, that they were an active part of their lives. This is not always the case, but this was one way that I found I could compare these two surveys.

For the second comparison, I found the variable, "My children were well cared for while I am incarcerated." And then most people strongly agreed with this and agreed with this statement. For the SPI dataset, I asked, "Who is your child/ children that you were living with just before your arrest living with now?" And for this one, it showed that most people were living with their parent and this parent included a step-parent that was not incarcerated. And then it moved down to grandparent. And then after this, it was less than three percent were living in that situation. For this comparison, I needed to make the assumption that the closer the family was living with, or the closer the family member that the person was living with or this living situation, the better cared for they were. This again is not always the case. Living with a close family member does not inherently mean you were well-cared for, but this could be an indication.

Finally, the third comparison, and the most in-depth comparison, is for the Vermont PRIN Study. They asked, "This facility makes it possible for me to play a meaningful role in my child's life." And then I compared this to the SPI data, which asked about what type of contact you have with your children and how frequent that contact is with your child. With this, I have a heat map, which shows that in-person less than monthly visits are the most common form of contact with their children. And also, unsurprisingly, a daily in-person visit was one of the lowest.

So, overall looking at these results, what I found was interesting was not necessarily the results themselves, although they are noteworthy, but how these two different surveys ask these questions on parental incarceration.

So, because the PRIN Study was more community engaged in how they designed and interpreted the findings, more of the questions are about like, "What is the quality of this relationship in and out of prison?" Whereas with the Survey of Prison Inmates, they talked more about what is the frequency that you're seeing your child, who is your child living with, et cetera. And I think that it's interesting to combine these two datasets, especially in an area of policymaking, because you need the frequency and you also need the more qualitative forms of these questions to really make a meaningful impact. For example, when we're talking with communication, we might see that on here, the incarcerated fathers tend to say that they don't have a meaningful relationship with their children in prison, or it's hard for this facility to help them have a meaningful relationship with their children.

And we can ask, what is the current baseline frequency of their communication? What type of communication are they having? And then we can form questions to maybe go back to these incarcerated fathers: "What about this type of contact isn't helping you? Do we need to increase the frequency? Do we need to change formats?" And these questions can help policymakers move forward in this research. This concludes my presentation. I just want to say thank you everyone for your help and thank you.

HEATHER BROTSOS: Thanks, Abigail. Our next presenter is Lily Palmer, who is a senior, majoring in psychology and criminology and minoring in statistics at North Carolina State University. Her project is titled “Bullying, Safety and Fear in Schools. What Role do Adults, School Fairness, and Reporting Play?”

LILY PALMER: Hi, everyone. My name is Lily Palmer as Heather mentioned, and I'm a senior setting psychology and criminology at NC State University. And along with my research mentor, Dr. Kelly Lynn Mulvey, I conducted a project initially surrounding the effectiveness of school resource officers in terms of bullying prevention within schools. And I was interested in this due to school resource officers becoming increasingly prevalent in K through 12 schools. But despite this, their effectiveness is still relatively unclear. And some research does suggest that SROs believe their role is to control crime, often more perceiving students of color as potential offenders more often. And these students report feeling less safe if they have an SRO in their school. So, we wanted to address this present research gap between potential connections with SROs, bullying, and student safety.

And at the same time, we also considered some other important factors to bullying prevention, such as adult support, school rule fairness, and anonymous reporting options. And so, in order to do this, we looked at different bullying characteristics, such as bias-based versus general bullying, frequency of bullying, locations of bullying, such as more hidden locations, like a bathroom or locker room versus more visible locations like a hallway. We also looked at other safety and harm-related variables within schools, such as opportunities for students to anonymously report threats to their safety and the safety of others, frequency of reports of bullying to teacher and other adults besides SROs, students feelings of safety and fear of harm, and students avoidance within schools, such as avoiding certain places in the building or avoiding class or activities. And also student perceptions of school fairness and how fair they believe their school rules to be.

And we investigated all of these variables in relation with each other, SRO presence in the school, and across student demographic characteristics. And we utilized data from the 2022 School Crime Supplement, which is an extension of the National Crime Victimization Survey, or NCVS. And these participants range from 12 to 18 years old, and it was about evenly split amongst male and female students. And the majority of students in the sample were White. About 18% of those who responded to questions about bullying had reported experiencing general bullying in the last year. And about 34% of those who responded reported experiencing bias-based bullying.

And the majority of students in the sample reported having an anonymous way to report threats to safety in their school, and about 80% also reported having SROs in their schools, which again speaks to the prevalence of them. And even higher, 90% of students reported having other forms of adult supervision in their school, such as adult hallway monitors or teacher hallway monitors. And you can see in the pie chart here that out of students who reported being bullied in the last year, about 50% of them were bullied three or more days. And we employed regressions and logistic aggressions to understand potential associations between school safety measures, the bullying factors, school supports, how safe and fear of harm that students feel, and other student demographic characteristics.

And we found that if students were White, female, and younger, they were more likely to have reported experiencing general bullying than to have not reported experiencing general bullying. They were also 22% more likely to report being bullied if they did not have an anonymous reporting option at their school for threats to safety. And particularly, students who perceive the school rules as less fair were over five times

more likely to report being bullied in the last year. And those who reported feeling less teacher and less adult supervision within their schools were about 28% and 51% more likely to have reported general bullying experiences respectively. And when looking at bias-based bullying, we found that students who were non-White and female were more likely to report experiencing bias-based bullying than to have not reported.

And similarly, with general bullying, these students perceive the school rules as less fair were 55% more likely to have reported facing bias-based bullying in the last year. And furthermore, we found that students reported feeling safer and less fear of harm and perceived their school rules as fair when both anonymous reporting options were available, and if they felt more support from their teachers. And then students who reported less teacher support and more days being bullied tended to avoid more areas in the school building, classes, or other school activities. And lastly, students who felt support from teachers and were bullied in more hidden locations in school were about 38% and 50% more likely to have told a teacher or adult in the school about being bullied respectively.

And moreover, those who were bullied as groups, as opposed to being bullied by solo bullies were over two times more likely to have told a teacher or adult about it. And so, based on our findings, even though we initially set out to explore SRO presence and its relation to bullying in schools, we actually did not find a significant relationship between these variables and with students' perceptions of safety and fear. And this finding seemingly challenges the assumption that SROs inherently improve safety in schools. But instead we found that other things like perceptions of fairness of rules, adult supervision, reporting, and supportive teachers do appear to play significant roles in bullying.

Therefore, school efforts and resources might be better used for reevaluating rule fairness and how students connect to their school rules, incorporating anonymous reporting mechanisms, or improving them if they already have those in place, and improving and fostering positive student teacher and adult relationships within schools. And because the perception of school rule fairness appears to be extremely important in relation to bullying and potentially bullying prevention, future research should explore what types of rules foster climates where students are bullied less frequently and also feel more comfortable reporting being bullied, and feel safer in their schools in hopes to decrease bullying within youth education and foster more inclusive and fair school environments.

And I just want to say thank you to BJS, my mentors, and everyone for joining today.

HEATHER BROTSOS: Thank you, Lily. Our last presenter for today is Elizabeth Tranquil, who is a master's student, studying statistics at North Carolina State University. Her presentation is titled “Gender Composition in Law Enforcement.”

ELIZABETH TRANQUIL: Thank you very much, Heather. Hi, my name is Elizabeth Tranquil. I am a master's student from NC State and my research is about women and law enforcement. And so the main question driving my analysis was, could there be a correlation between how many women are in a police agency and any of the other establishment characteristics of a police agency? So I'm looking at predictors of female representation and U.S. law enforcement agencies. I use the 2020 Law Enforcement Management and Administrative Statistics dataset, also known as LEMAS, which covers over 3,000 law enforcement agencies across the U.S. and it includes a variety of variables. And we do know that the proportion of female officers does vary between agencies and across categories, so we might want to know why.

So what did I do to look at the influence proportion of female officers? I did various things to clean and refine this dataset, removing variables that weren't helpful like pretext fields, outliers, variables, and some variants. This got me from 437 variables to 317 variables. And after that, I had to deal with some missing values. I had approximately 26% of values missing that I imputed. Once I got a complete dataset, I had to find a regression model that worked, and I tried a few different things for this. I did a literature review. It showed that other people were using logistic regression for this particular type of analysis due to the skewedness with the variables. And ultimately, because I wanted to see how each predictor influenced the number of female sworn officers and because I wanted to control for agency size, since you would think that depending on agency size, you would have different amounts of resources and different agency characteristics.

So, I chose a simple model with two predictors. My first predictor was my control predictor, I called it. I kept this the same for all models. And I changed this up a little bit on several runs, but ultimately I ended up picking total full-time employees as my control for agency size because of the high response rate for that variable. And then my second predictor was the variable of interest. So this is where I looped through all the other variables in the LEMAS dataset, so basically, mass mindless dataset for correlation. My response variable was a log-odds response because of the logistic regression that I was using. And I calculated the odds as odds of a female full-time sworn officer to a not-

female full-time sworn officer at an agency. And so I ran these 300-something models, and I compare the coefficient magnitudes for the second predictor and examined the significance. And because I scaled these, I can compare them to each other.

So, some key findings. We do have to look at the numerical and categorical variables separately because of the nature of the categorical variable encoding that I did. But results indicate that while approximately 80 variables were significant with a p less than 0.05, in predicting proportion of female officers at an agency, there was no single factor that had a large effect, which probably is a good thing. Some highlights some of the largest significant effects that didn't have super high variance inflation factors or as follows, so for variables that positively influence the proportion of female officers, even controlling for agency size, there might be more of a pyramidal organization structure versus a flat structure. A more pyramidal structure might lead to a higher proportion of female officers because a lot of these intermediate supervisor variables came up fairly high. So, the gender specific ones that were the number of female sergeants, number of female intermediate supervisors, but also the total number of intermediate supervisors.

There is also some implication that having women officers in an agency is correlated to having minority officers in an agency, which is unsurprising because some of these demographic variables for black full-time sworn officers came back. For variables that were negatively influencing proportion of female officers controlling for agency size, the strata variable came up. So that meant that there was an association between women and larger departments. Larger departments tended to have a higher proportion of female officers.

There was a variable of how did the agency address the problem of internal affairs, so the reference level was the agency had a specialized unit with full-time personnel to address. And then the factor that flagged was that the agency addressed the internal affairs that had no designated personnel. There's some correlation between having a specialized unit for staff misconduct and policy violations versus addressing without a specialized unit. And addressing without the specialized unit appears to be negatively correlated. And if you look at the literature, most of these factors have been published on, some might be areas for future study, have a list of like 30 of these. The small diffuse impact of these many predictors supports that there's not really one thing that influences the number of women.

And there are limitations to our project similar to those mentioned by all the other students presenting before me. So, like, for example, when you do this sort of thing,

there is a risk of false positives. I had approximately 44,000 multiple comparisons, so I had to adjust my p-values to avoid risk of false positives because we could find them here by coincidence. And ultimately this is a variable selection procedure. It's a pipeline that identifies possible variables for future study, but tentatively there are kind of two conclusions. One is that if you are aiming to improve female representation, you want broad changes, broad-based cultural initiatives, structural adjustments. These might be more effective than focusing on any one individual policy. Unfortunately, these are difficult to measure with a survey.

So, if there's a hypothetical nebulous factor that is obviously indirectly correlated with the number of women, we are not currently measuring it. So future research towards what this might be could be interesting. And then the second conclusion is that if you are a hiring manager and you are sexist towards women, you shouldn't be. You should stop. You shouldn't be worried about hiring too many women at your agency because the factors possibly associated with outcomes, which is number of complaints or required training hours for officers. There is not a very large correlation between the number of women at an agency and these factors. And I'd like to thank the people who advised me and BJS for the wonderful LEMAS product. Thank you to Sean Goodison, my mentor from BJS, Rod Brunson, my mentor from ASC.

And if anybody is interested in particular variables, please don't hesitate to get in touch with me. I can run my code. Thank you very much.

HEATHER BROTSOS: Thanks, Elizabeth. And now I will hand it over to Min Xie for some closing remarks.

MIN XIE: All right. Thank you, Heather. My name is Min Xie. I'm a professor in the Department of Criminology and Criminal Justice at the University of Maryland. Before I discuss just a few takeaway points, I would like to thank everyone who showed up today. Your participation really made this event a success. So, the presentations today are inspiring. I remember Dr. Steven Pinker, the author of the best-selling book, “The Better Angels of Our Nature”, once said, "A smarter world is a less violent world." So we know the collection of data and the analysis of the data go hand in hand. The BJS leads many data collection effort and the users analyze the data and use the data to demonstrate what we have learned and what needs to be done. The presentations today inspired us to develop theories for interpreting the findings.

At the same time, I find many potential policy implications of the projects I would like to encourage the authors continue their investigation. If Steven Pinker is right, a smarter world is a less violent world, then we all just contributed to making the world a little better today. And another point I would like to make is partly inspired by the philanthropist, Melinda French Gates. In an interview, she discussed how to empower women. She said, I paraphrase, that men often are successful because they are more networked in the world. Of course, researchers, we debate on these ideas, right? And some researchers, for example, have found that men benefit not so much from the size of their network, but from being central in a network. Putting aside the debate, I think the important idea here is that networks matter. They're really important for all of us, but they're especially important for young scholars and students.

The ASC and BJS are committed to training a new generation of researchers by offering them support and by giving them a platform for sharing their best ideas, as emphasized by the BJS Acting Director, Kevin Scott, and ASC Vice President, Natasha Frost. And I hope you as participants can give us feedback on how we can do better after today's event. You can easily contact us. And once again, I want to thank you for your support of the Student Research Expo. And also, I would really like to thank the host to today's events, Heather Brotsos, for her work in this area. Thank you so much. Heather, back to you.

HEATHER BROTSOS: Great. Thanks, Min. And thank you all for attending today's program. We'll post a recording of this webinar on the BJS website after the event concludes. If you're interested in learning more about BJS and the work we do, please subscribe to JUSTSTATS at the link provided in the chat. Thanks again and have a wonderful afternoon.