

## POSTER PRESENTATIONS

### Session 2

**P31. WITHDRAWN**

**P32. WITHDRAWN**

**P33. How Are Coastal Cities Adapting to Rising Ocean Levels? Exploring possible outcomes and adaptations of cities affected by rising ocean levels**

**Jared Willis** (IU Southeast)

This research and presentation analyses the ways in which coastal cities are adapting, or are failing to adapt, to rising ocean levels. The presentation will feature U.S. cities as well as European examples such Venice, who have made innovative progress with inflatable dam systems for rising tides. The research will consist of data from climate change scientists and researchers to find out how quickly ocean levels are rising, as well as what needs to be done to prevent damage to coastal populations.

Mentor: Dr. James Hollenbeck, Department of Education, IU Southeast

**P34. Introduction and Distribution of Disease as a Result of British Colonization of North America**

**Ethan Galloway** (IU Southeast)

New diseases introduced the time of colonization in America were a major cause for deaths of indigenous people and their interactions with the new comers from Europe. This discussion will show how the distribution of new diseases during the time of North American colonization ultimately led to the Europeans having control over the indigenous natives of the Americas. Examination of historical documents and recorded data during that time will show that disease not only played a role in American colonization.

Mentor: James Hollenbeck, School of Education, IU Southeast

**P35. How Food Preservation Advanced Civilization**

**Marguerite Timan** (IU Southeast)

The processes of salting and canning have been instrumental in the food preservation and health. These processes will be examined from an historical perspective and compared in a controlled experiment to determine benefits and limitations for each process.

Mentor: Dr. Hollenbeck, Department of Education, IU Southeast

**P36. Evidence of Inclusion (Eoi) on College and University Websites : Hide-N-Seek for Available Resources**

**Sidney Nall** and Alexandria L. McCorkle (IU Kokomo)

The number of students with disabilities (SwDs; psychological, learning and physical) continues to rise within college and university populations. For prospective SwDs, their first time self-advocating and searching for necessary resources will occur during their college transition. Therefore, it is necessary that campus websites clearly display their available resources and makes them easy to find (i.e., locatable). In the current study, 25 college/university websites were coded for evidence of inclusion (Eoi; offering resources to benefit students with disabilities). Three coders attempted to identify examples of 48 resources/services offered on each website. Interrater reliability (Cohen's Kappa) was used to operationalize "locatability of resources" across four major categories; Human Support (HS) and Academic Accommodations (AA); and Physical Support (PS) and Organizational Support (OS). Campus websites were rated based on their Cohen's Kappa score (Minimally Locatable = < .70 to Highly Locatable ≥ .70). Approximately 12% of websites for (AA) and (HS) were ranked as Highly Locatable. Approximately 20% of websites for (PS) and (OS) were ranked as Highly Locatable. While campus websites may present an adequate amount of resources; prospective students may not be successful in locating information about the resources. Therefore, it is necessary the campus websites present their resources in a way that can be easily locate by prospective students. Recommendations for website improvements and resource presentation are provided.

Mentor: Vanessa Costello-Harris, Department of Psychology, IU Kokomo

**P37. A Preliminary Investigation on Bridging High School Chemistry to University Level Chemistry**

**Megan Perkins** (IU Southeast)

This is a pilot study to identify weaknesses and strengths in high school chemistry learning and it's bridging of student understanding in post-secondary chemical education. Data will be obtained from students in an anonymous Qualtrics online survey for analysis of learning trends and similarities and information will be presented for chemical educators

Dr. James Hollenbeck, School of Education, IU Southeast

**P38. Teaching Strategies In The Chemistry Classroom**

**Kassidy Smith** (IU Southeast)

Three teaching approaches and two technologies are used to teach how chemistry is applied to technology and societal applications in the teaching of a series of high school general chemistry classes. Students are introduced to a variety of strategies. Through pretesting and post-testing, student achievement will be measured to examine the effectiveness of each strategy.

Mentor: James Hollenbeck, Department of Education, IU Southeast

### **P39. A Collaborative Visual Analytics System for Cyber Defense Analysis**

**Zachary M. Courtney**, Lindsey J. Thomas, and Gabriel Agbo (IU Kokomo)

An issue of cyber analysts' work is a lack of efficient coordination when responding to cyber-attacks. A proposition to this issue is a collaboration support system that would allow for cyber analysts to actively work together in real time documenting information in an organized way to achieve the most efficient results. A visualization map was designed to assist in organizing the reasoning process of a cyber analyst. This centers around a conceptual Action-Observation-Hypothesis (AOH) model that identifies the three key components in the analytical reasoning process of cyber analysis: actions, which refer to operations conducted by analysts, observations which refer to the data identified by the analysts as indicators of potential attack incidents, and hypotheses which are thoughts and conclusions generated by the analysts to interpret the existing observations. The visualization map would allow for analysts to be utilized more effectively in their area of expertise by allowing them to work on what they consider to be necessary to investigate further. Case studies were performed to test this proposed collaborative analysis system. The findings reflect that the system and its visualization map support the goals of information sharing among analysts and efficient task division of cyber analysts' tasks. However, the map could also benefit from certain improvements such as a refined labeling system to better understand keywords, categories, and use of technology. It could also use a color-coding system to improve the readability of the map, and a search function to quickly and easily find important nodes of interests.

Mentors: Chen Zhong and Awny Alnusair, Department of Informatics, IU Kokomo

### **P40. The Effects of a Virtual Mentor Vs. A Physical Mentor**

**Amanda Echegaray**, Mathew Palakal, and Molly Morin (IUPUI)

The purpose of this research project is to explore if a virtual mentor can better connect with students to become more successful in college. Mentoring has many benefits for incoming students, such as; getting them involved, getting to know the campus, helping them access campus resources, coping with workload, time management, and academic stress, etc. With all these benefits, there is still no guarantee that every student will use their mentor for guidance. This affects how connected the student feels with the campus, their field of study and campus life. Could this disconnection be because the student has different beliefs, back- grounds, or not enough experience? Or is the answer simply because the student doesn't have an adequate mentor? Our aim is to see what students choose their mentors to be like; same features as them, same age, same background, same gender, etc., and are they able to connect more with a virtual mentor they have created or a student chosen by professionals. With this data, we hope to develop a technology-based virtual mentor. Our hypothesis is that with a virtual mentor we will be able to support incoming students be better connected and successful in their academic career paths.

Mentor: Mathew Palakal, Department of Human Centered Computing, IU School of Informatics and Computing, IUPUI

#### **P41. Systems Pharmacology Approach for the Prediction of Adverse Drug Reactions**

**Timothy Mahajan** (IU Bloomington), Malika Mahoui, Stuart Morton, Sandra Garces, Jill Chappell

In drug development ensuring patient safety is crucial, and new ways to predict adverse drug reactions are needed. An adverse drug reaction is a harmful and unintended reaction to a drug. A systems pharmacology approach to collating information about proteins in a pathway beyond a known drug target, along with clinical information about adverse effects of drugs known to interact with different proteins in the same pathway, could potentially predict a new drug's adverse reactions. The article "Postmarket Safety Events Among Novel Therapeutics Approved by the US Food and Drug Administration Between 2001 and 2010," describes novel therapeutics with significant safety findings identified after drugs were approved, including adalimumab, golimumab, sunitinib, and pregabalin. These drugs all act within the MAPK pathway, which has sub-pathways linked by the MEK1 gene. This gene was therefore selected as a proof-of-concept evaluation to test the systems pharmacology pathway approach. Using R, a statistical analysis programming language, and Metabase, an R interface to Metacore, a manually-curated database of molecular interactions, an algorithm was developed to find genes within a parameterized distance of MEK1 and drugs that target those genes. Additionally FAERS, the FDA's adverse event reporting system will provide adverse reactions of drugs of interest. Using visual-analytic descriptive techniques, the adverse effects mapped to the MAPK pathway will be compared with the adverse effects of the four drugs named above to evaluate this systems pharmacology approach to help predict what adverse reactions may be related to a new drug.

Mentors: Malika Mahoui, IU Bloomington; Jill Chappell, Eli Lilly and Company, Indianapolis

#### **P42. Developing a Social Media Strategy for a Small Non-Profit Organization: More Conversation, Less Marketing**

**Audra J. Lawler** (IUPUI)

Right Sharing of World Resources (RSWR), based in Richmond, Indiana, is a successful microfinance organization that empowers marginalized women in Kenya, India and Sierra Leone. Although established in 1967, RSWR remains a small organization compared with other NGOs and has not had the time or expertise to update its website or to take advantage of the power of social media for outreach and public relations. The first project was to complete a total redesign of RSWR's website as well as a new branding campaign. This project is to develop and implement a social media strategy that will allow RSWR to better communicate its message to its target audiences, such as donors, volunteers and the public at large. Building on the methodology used for the website redesign project, I interviewed key players and investigated social media best practices, specifically the social media approaches of small firms and non-profit organizations. Among my findings are that an organization should have a written policy and limit the number of people who can publish social media content. A social media strategy must be dynamic and there should be at least one person dedicated to content management. Content must be fresh, sincere and purposeful, never arbitrary or perfunctory and should be consistent with RSWR's overall branding efforts and public persona. This same methodology for developing a social media strategy could be used by nearly any small entity that has to be very judicious in how it communicates through 21st century technology.

Mentor: Sara Anne Hook, Department of Human-Centered Computing, IU School of Informatics and Computing, IUPUI

#### **P43. Additive manufacturing (3D printing) with recycled HDPE**

**Carolina Cardona** (IUPUI)

Background: The additive manufacturing (AM) community has identified the unique opportunity of using recycled plastic in extrusion-based methods. Notably, only about 25% of the plastic produced in the U.S. is recycled. The most ubiquitous plastic is polyethylene (PE), particularly, high-density polyethylene (HDPE). However, no scientific efforts have reported to its use in AM. Purpose: The objective of this work is to find the optimal recycling processing parameters that allow to utilizing recycled HDPE in material extrusion-based AM. To accomplish this objective, our work addresses two aspects: (1) the formation of HDPE plastic filament, and (2) the use of plastic filament in extrusion-based AM. Methods: Two types of resin are studied: virgin and recycled HDPE resins. The composition of the resins is analyzed using a Fourier Transform-Infrared Spectroscopy (FTIR) (Nicolet Thermo Scientific). Plastic filament is obtained from extruder apparatus (Filastruder). The filament is then utilized to build test specimens via extrusion-based AM according to the ASTM standard D638. The mechanical properties of the filaments and the test specimen are assessed by tensile testing (MTS Q-Test). Results: The optimal temperature in extrusion is found to be  $175\pm 10^{\circ}\text{C}$  for virgin and  $185\pm 15^{\circ}\text{C}$  for recycled HDPE. FTIR showed impurities in the recycled HDPE plastic consistent with the presence of styrene, acrylonitrile, and polybutadiene. The elastic modulus is 1.80 GPa for both virgin and recycled HDPE filament with corresponding tensile strength values of 38 MPa and 24 MPa. Ongoing research includes the fabrication of tensile specimens and their mechanical characterization.

Mentor: Dr. Andres Tovar, Mechanical Engineering, School of Engineering and Technology, IUPUI

#### **P44. Growable Fuel. The Emergence of Aquaponics and the Cultivation of Renewable Oils**

**Wesley Seiderman** (IU Southeast)

This research and presentation demonstrates how the cultivation and usage of algae can support future fuel restraints and ultimately replace/supplement fuel sources that we use daily. The use of farmable algae is the way of the future, still trying to establish its base, it is coming up as one of the leading renewable energy sources of this millennium. Many leading private and government organizations are investing resources into this new energy breakthrough. Yes, popular support is in fossil fuels as of now but with the world we live in, we will eventually have to move into a safer and cleaner way for energy usage. With these case studies and future ones to come I believe that we will make steps to a cleaner world for all to live.

Mentor: James Hollenbeck, School of Education, IU Southeast

#### **P45. Spray Drying Fabrication of High Quality Graphene and Graphene's Applications on Energy Storage**

**Asel Habarakada Liyanage**, Nathanael Edou, Yung Wei Chin, Osama Assaf and Jian Xie, Yadong Liu, Lei Li (IUPUI)

Graphene is an essential tool that will revolutionize energy storage in the future. Graphene has a honeycomb lattice of hexagonally arranged carbon atoms. Graphene uses 3 of the 4 valence electrons to form covalent bonds and the remaining electron to form a delocalized  $\pi$  bond. This property of the graphene makes it highly conductive. However, graphene is thermodynamically unstable and the single sheets of graphene have a strong tendency to restack. Unsuccessful research has been done in the past to solve this issue using  $\text{R}_2\text{O}_5$ , Pt and polyaniline. To avoid restacking we used nano-sized functionalized carbon black (FCB), which increases the space between graphene sheets. These integrated materials are used as electrodes for Li-ion batteries and supercapacitors. Graphene is 200 times stronger than steel and is efficient in both heat and electricity conduction (better than silver). The newly implemented spray drying procedure is more efficient, effective and continuous than freeze drying procedure. It is a promising candidate that can be easily scaled up for industrial production.

**P46. Profits of Racism Within the Prison System**

**Debi Pellam** (IU Kokomo)

This poster looks at convict leasing, coerced consumerism, and race. Organizations such as ALEC, which lobby for things such as longer sentencing and help to blur the line between what benefits society and what benefits corporations, are looked at. Companies who employ prisoners to man call centers, produce clothing, working of farm land, making reservations for hotels, and plastic cutlery. The products prisoners are made to purchase inside prison help to create demand for products. The disproportionate rates of convicted black and brown people within the United States whom are more apt to be convicted and serve longer sentences, making them the main source of labor within the prison system and the main consumers of the products sold in prison. This paper, which focuses on just the prison system, is just the baseline to the overall question. How much profit is in racism?

Mentor: Dr. Medley-Rath, IU Kokomo

**P47. Neurological Function in Perception**

**Chelsey Blair**, Abby Dester, and Marcus Dudas (IU Southeast)

Social exclusion is an act in which restricts a person's ability to interact with a group. In this study, we investigated two independent but related hypotheses concerning the effects of social exclusion. Social exclusion was manipulated via a ball-tossing game called Cyberball. We hypothesized that an increase in negative affect caused by social exclusion will be reflected by an increase in prefrontal alpha asymmetry, and secondly an increase in circulating cortisol, a biomarker for stress caused by social exclusion, will be reflected in the ratio of slow to fast waves in an electroencephalogram (EEG) recording.

Mentor: Meghan Kahn, Department of Psychology, IU School of Social Sciences, IU Southeast

**P48. Racial ambiguity and race essentialism in interracial interactions: perceptions, expectations, and identity contingencies**

**Glenn Giles Jr**, Shahana Ansari, Mary C. Murphy (IU Southeast)

Previous research suggests that people expect to be perceived more negatively and stereotypically during interracial interactions compared to intraracial interactions (Shelton, Richeson, & Vorauer, 2006). People holding entity theories of human traits (like biological lay theories of race) are more likely to believe stereotypes of outgroup members and to attribute those qualities as more innate (Levy, Stroessner, & Dweck, 1998), but exposure to racial ambiguity may decrease biological lay theories of race (Sanchez, Young, & Pauker 2014). Therefore, the current research examines perceptions, expectations, and identity contingencies of White participants when anticipating interactions with White, Black, or Black/White Biracial partners. Results show that White participants want to appear unbiased on explicit measures of perceptions of Black and Biracial partners, but still show the most anxiety when anticipating interaction with Black partners and the least anxiety when anticipating interaction with White partners. Findings also suggest that White and Black partners are expected to have a significantly higher probably of saying something offensive as compared to Biracial partners. Future research should look at anticipated interaction with biracial partners who have different component racial groups as well as interactions across different settings.

Mentor: Sara Walsh, IU Southeast

**P49. Sympathetic Nervous System Activity and its effect on Implicit Race Bias**

**Adam Schwartz** (IU Southeast)

This study investigates the relationship between Implicit Racial Bias (IRB) and elevated sympathetic nervous system (SNS) activity. IRB occurs below conscious awareness, and happens immediately when presented with perceived threat. To measure IRB, we use a first-person simulation where a participant must decide to “shoot” or “not shoot”, a threatening (holding a gun) or non-threatening (holding a wallet), white or black person. The addition of a SNS stressor (placing your hand in ice water) is hypothesized to make participants more accurate on their decision.

Mentor: Megan Kahn, School of Social Sciences, IU Southeast

**P50. Social Norms of Prejudice: Investigating Perceptions of Stigmatized Groups**

**Celine Aslinia**, Mary Murphy, Kathryn Kroeper (IU Bloomington)

“Believing that prejudice is socially acceptable increases the likelihood of engaging in and permitting discriminatory behavior.” 980 students at Indiana University were asked to indicate how socially normative it is to express prejudice toward different groups. The present study examined the relationship between social norm perceptions towards four systematically understudied and stigmatized groups - the homeless, mentally ill, mentally unstable, and drug users - and political orientation of the students. We hypothesized that due to their greater emphasis on the role that personality traits and individual decisions play in one’s life, conservatives would have more negative perceptions of social norms across all four groups than liberals, but that both political orientations would have more negative perceptions of social norms towards the mentally unstable than the mentally ill. Additionally, we hypothesized that, regardless of political orientation, there would be no differences between perceptions of social norms of the homeless and the mentally ill due to the perceived link between the two. A repeated measures ANOVA revealed that politically liberal students perceived prejudices toward all four groups to be less socially acceptable than politically conservative students. Additionally, regardless of political orientation, students perceived negative prejudice toward drug users to be more acceptable than prejudices toward the homeless, mentally ill, or mentally unstable. Future research should investigate how the connotation of the labels used for these groups (for example, mentally unstable as opposed to mentally ill) could affect social norm perceptions and willingness to provide resources for these individuals.

Mentor: Mary Murphy, Kathryn Kroeper, and Benjamin Oistad, Department of Psychological and Brain Sciences, IU Bloomington

**P51. Hiring Decisions: Evaluation of Hiring Processes**

**Jossalyn Y Deleon**, Autumn L Hockenbury, and Meghan Kahn (IU Southeast)

The current study examined the implicit bias within the hiring process. 150 participants were gathered to complete the survey, which looked at specific variables of hypothetical applicants (gender, race, and education versus experience). It was hypothesized that minority races would be less likely to be hired for the position, females would be less likely hired for a position than males, applicants with more education would be more likely to be hired than those with more experience, and that participants were more likely to hire applicants that have similar characteristics as their own.

Advisor: Meghan Kahn, Department of Psychology, School of Social Sciences, IU Southeast

**P52. Masked Racism: Prison Industrial Complex**

**Angela Davis**, Matthew Hyland, J. N. Salter, Sarah J. Tracy, Claire Williams (IU Kokomo)

This research project on Masked Racism: Prison industrial complex has many different views on if it really is a problem or just a cash cow. Imprisonment has become the response of first resort of many social problems that burden people in poverty, which are usually people of color. Prisons have shifted from government control to the private sector. Allowing these prisons to be private only give incentives to greedy wealthy owners to cram more people into their prison. People of color are being put under surveillance and targeted for these prisons. Programs are getting squeezed out by these private prisons such as temporary assistance to needy families. Many corporations that appear to not be involved but are very much so into prison labor such as IBM, Motorola, Compaq, Texas Instruments, Honeywell, Microsoft, and Boeing. Social Wealth is being devoured that could be used on subsidized housing, education and drug free rehabilitation programs. This country has a hidden agenda. Mass incarceration is their solution to unemployed, which are mostly people of color. The citizens have been trick into believing in the efficiency of imprisonment. Racism sinks more deeply into the economic and ideological structures of the U.S. society.

Mentor: Stephanie Medley-Rath, Department of Sociology, School of Humanities and Social Science, IU Kokomo

**P53. Coping and Anxiety Study**

Lindsey Hughes and **Crystal Neely** (IU Southeast)

This study explored the possibility of a relationship between gender and chosen coping mechanism when an individual faces anxiety and what exactly the relationship could be. Participants were individuals, age 18 and older, who chose to respond to links placed on the researchers' social media accounts. The questionnaire contained questions to determine if the individual was currently feeling anxious and there were questions about their selected coping mechanism (alcohol, self-medication, social support, etc). Researchers hypothesized: (1) males would report alcohol and tobacco use at higher rates than females and (2) females would report more emotional coping than physical releases.

Mentor: Meghan Kahn, School of Social Sciences, IU Southeast

**P54. Architecture and Construction and Social Significance of the Great Pyramids**

**Jared Nierman** (IU Southeast)

I will specifically be address the longevity, complexity and the extreme successfulness of the architecture and construction involved in building Great Pyramids. The multifaceted logistics pertaining to the construction of the Great Pyramids will be discussed and insights into a seemingly advanced society will be examined.

Mentor: Dr. Hollenbeck, School of Secondary Education, IU Southeast



**P55. Qualitative Coding, Community Engagement, and Decision Making in Healthcare**

**Amira Nafiseh**, Nerissa Bauer, Janet Panoch (IUPUI)

Qualitative research approaches are often utilized in education and health care settings as a way to analyze themes that arise from interviews and focus groups on various topics. Qualitative methods allow researchers to learn what is important to representative stakeholders so interventions can be designed to meet their needs. Two specific projects that utilize qualitative methods to inform the larger research agenda and thus help to incorporate patient voice into the process were designed and executed. The first project, a video series known as Presenting symptoms, Asking questions, Checking understanding, and Expressing concerns (PACE)-talk, was developed to promote effective communication between patients and physicians. Students provided feedback on how to translate the training videos into an interactive game to assist individuals in practicing the skills. Stories and suggestions were coded to be incorporated into the game that is being developed. The second project, Tailoring Education for ADHD Care in Home (TEACH) was designed to improve ADHD care management in clinics while engaging caregivers and their children. Families and physicians' input on their reasons for participating was collected through qualitative interviews to refine the program before expanding to other clinics. Overall, these works in process are contributing to the development of interventions that hope to improve decision making in healthcare in the community.

Mentor: Nerissa Bauer, Department of Pediatrics, IU School of Medicine

**P56. Discovering the Difference: Examining Personality Traits and Handedness**

**Jillian B. Coursin** and Leah M. Trail (IU Southeast)

The purpose of this study is to evaluate the notion of personality differences based on three categories of hand dominance (Left, Right, Inconsistent), setting it apart from the greater part of previous research. This study will also examine stereotypes regarding personality and hand dominance. Participants answered an electronically distributed survey that included the Big 5 Personality Assessment, the Annett Handedness Questionnaire, and questions containing common stereotypes regarding handedness. The data was analyzed using an ANOVA to distinguish any correlation between personality traits and handedness. We hypothesized that there will be a difference between at least one personality trait and handedness. We also hypothesized that the handedness stigmas will still be a common assumption.

Mentor: Megan Khan, School of Social Sciences, IU Southeast

**P57. No Title**

**Eddie Miles** (IU Kokomo)

This paper will talk about how the effects of race, inequality, and neighborhoods lead to America's top crime. Also, the relationships between neighborhood social disorganization for Black, Hispanic and White children will be the focus on why things go on violently in poor, or low-income areas. The research will highlight the importance of how parents that are not being able to afford raising their kids leads up to violence. Having a stable home plays a major role into the correct guidance being implanted in children's minds. I also researched on how low educated schools that have less material to provide affects the kid's into losing focus and searching other routes into growing up. This causes schools struggling financially, students turning into more of a problem, and more jobs being lost in that certain community when the school close. This happens because kids grow up and they must adjust to the struggles that their family goes through and focus more on how to provide help financially for the families at a young age. Bad habits start off at a young age. Some people more than likely grow up to be like the people who are around them depending on what type of working class your neighborhood is filled with. Low class communities lead into neighborhood businesses falling apart, keeping them from gaining success by generating instability and uncertainty. Which is why businesses in ghetto areas are tough maintaining consistency and keeping the place from closing. Walk in businesses must attract customers and when people are afraid into meeting the area, then that's when they find some- where else to go for their needs and wants. Overall when a community lacks resources that certain cures needs, then that creates criminal thoughts into to taking from others harmfully.

**P58. Food Preservation and Production**

**Nickolas Nixon** (IU Southeast)

Food preservation and production has enhanced and benefited human lives. I have reviewed civilizations in the fertile crescent and examined how the development of food preservation and production changed their way of life.

Mentor: James Hollenbeck, School of Education, IU Southeast

**P59. Police Discrimination and Race**

**Katelyn Laypoole** (IU Kokomo)

When one considers how police officers do their job, some factors may impact community members differently. Police bias is one of the major issues in the criminal justice system. Some say police need to have pre-conceived ideas of groups of people to do their job well, but sometimes this leads to a clear disadvantage to those who are suppressed by the system. The goal of this paper is to explain the relationship between people of color and negative police attitudes. A common theme throughout history is the maltreatment specifically of African Americans by the police force. They are commonly targeted in the war on drugs and have been well represented (negatively) in the media because of how officers use excessive force. Aside from race, factors including poverty and education contribute to African Americans' unfair disadvantage and negative image of them, which will also be discussed. Several articles researched for this paper looked at past, famous cases of lives lost due to this unfair policing of people of color and the impact, good or bad, that these cases have had on today's policing.

Mentor: Stephanie Medley-Rath, IU Kokomo

**P60. Adverse Childhood Experiences and College Completion**

Robin Herrington and **Jenn Daniel** (IU Southeast)

Previous research has shown that adverse childhood experiences can lead to an increased risk of mental health issues (Merrick et al, 2017). College students who have experienced ACE's are at a higher risk of depression and alcohol abuse (Kim, 2017). Research shows that ACE's can lead to disengagement in school for high school students (Iacchini, Petiwala, DeHart, 2016). The purpose of our study is to determine the relationship between college completion and ACE's. Our hypothesis is that high ACE scores will be more likely to drop out, lowered resiliency, higher drug/alcohol use, and a negative perception of their teacher/peer relationships.

Mentor: Meghan Kahn, IU Southeast

**P61. WITHDRAWN**

**P62. Internet Free for All. A "Free" Internet and Democracy for Promotion of STS and Education.**

**Brian Robinson** (IU Southeast)

This research and presentation will focus on the advantages of a free internet in a democratic society. Benefits assumed by a more readily available internet will dramatically improve quality of life for those currently lacking access. For those with a lack of internet options, increased availability or access to the internet will provide an improvement to quality of life and aid in participation in a democratic society. Impact is expected to be most significant and create tremendous opportunity for those living in rural areas as well as the urban poor. For the urban poor and those in rural areas, limited or non-existent access to the internet has most likely had a negative impact on their lives creating problems that a large portion of society takes for granted. Eliminating cost and connectivity barriers will not only give more people a voice in our society through the internet but will also encourage innovation and development in the online marketplace.

Mentor: Dr. John Hollenbeck, School of Education, IU Southeast