

ReCUR

Red Cedar Undergraduate Research

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About ReCUR

ReCUR is a bi-annual publication of the Michigan State University Honors College that highlights the diversity and quality of our students' research and creative endeavors. Each May issue of ReCUR accepts submissions from Honors College Students. Each December issue accepts submissions from participants in University-wide research and creative arts forums. In addition to providing students an outlet for publication of their work, ReCUR offers students an opportunity to learn about publication in a scholarly journal from multiple viewpoints: as a submitter, a member of the student editorial board or editorial staff.

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About the front cover

Experimentations on Betta Aggressiveness



This image is of two Betta Fish, specifically *Betta splendens*, also known as Siamese fighting fish. The fish cannot see one another, as a two-way mirror has split the tank. The mirror causes the fighting fish to see their reflections, which causes them to enter an aggressive state, as seen by their protruding gills.

The photo was taken as part of a 2008 biology research project. --Randel Tomina, Eli Broad College of Business

About the back cover

Subtleties of Friendship

Sometimes the most meaningful conversations can transpire without any words at all. Similarly, a smile can be an encouragement or a threat, a mark of friendship or a symbol of power, a sign of embarrassment or a display of confidence. Much of my work involves disguising tension within seemingly harmless scenes and asking the viewer to decide the meaning of the situation. In this piece, the smile of the main figure stands in contrast to the dark figure behind and the onlooker in the background beckons the viewer to ask what has just occurred and if they can relate.

--Kayla Felger, Department of Chemistry



Research Roundtable

Undergraduate students tell ReCUR about working with Dr. Baumann and how their research has impacted their views on faculty, the classroom, graduate school and more.



Research Roundtable (From Left to Right) Back Row: Sarah Meyer, Chelsea House, Megan Buczkowski, Craig Pearson. Front Row: Dr. Melissa Baumann, Kaitlin Tyler, Yutian Shu (PhD student)

In reading the two previous issues of ReCUR, I realized that while the journal highlights the often extraordinary results of undergraduate research at Michigan State University, it may not provide much of a window into the experience of participating in research as an undergraduate. The interview that follows is a brief attempt to provide such a window into a single lab.

During this past academic year, five undergraduate students worked in my lab—Megan Buczkowski, a second year Materials Science and Engineering (MSE) major; Chelsea House, a fourth year Materials Science and Engineering major; Sarah Meyer, a fifth year MSE major; Craig Pearson, a first year Biochemistry and Molecular Biology major; and Kaitlin Tyler, a third year MSE major. They perform tasks which support the lab's overall goal of understanding the links between the properties of the materials and cells used in bone tissue engineering.

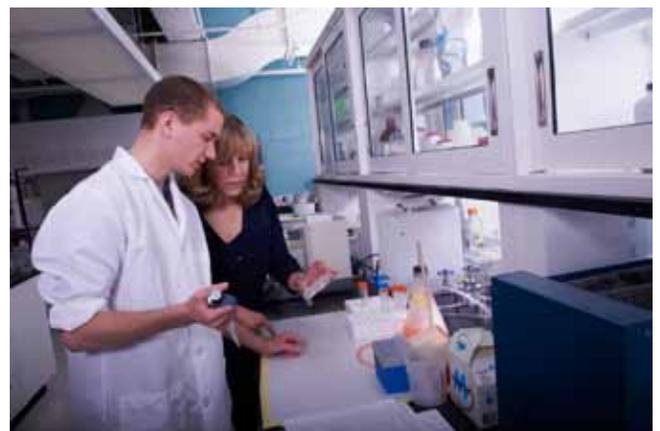
This work has resulted in publications and presentations for the students, and it has also led to outstanding opportunities outside of my lab. This summer, Chelsea is a Quality Assurance Intern at Abbott Medical Optics in Milpitas, California, working on the implementation of a manufacturing line for a new product. Kaitlin is a summer intern with 3M in their Battery Materials Division. Craig is working with faculty from MSU (including myself) and the University

of Michigan on developing a drug delivery device to treat retinal diseases such as Leber congenital amaurosis. Megan is currently an undergraduate research assistant at the University of New Mexico and Sarah has accepted a permanent position at Gore in Arizona.

These students are typical of the many undergraduates who have passed through my research group. Some go on to graduate school, some to medical or law or dental school and some to work in industry. Most follow their passion for biomedical materials engineering to find fulfilling vocations and I've been fortunate that most keep in touch with me to let me know that their time in my lab meant something to them, often helping them in part, reach some of their goals.

In reading the comments of these students, I note that "pushing" is something my students associate with me. Each of these students is talented, and they represent all of our undergraduates, all with the ability and capacity to accomplish great things. It may be part of my job, and that of every faculty member, to push our students towards their future, to push them to work hard and to push them to succeed. I hope you enjoy this issue of ReCUR and that you too may be inspired to create.

Dr. Melissa Baumann
Associate Dean, Honors College
Associate Professor, Chemical Engineering
and Materials Science
Managing Editor, ReCUR



Tom Gennara Photography

What impact has your research had on you in the classroom?

Chelsea House: What I'm learning right now in one of my 400-level classes I did last year almost every single day in the lab. So studying for this class won't be nearly as difficult because I've had hands-on experience.

Craig Pearson: In my first semester Chemistry lab we did a new lab in the class every week. Every single instrument that we used in the class we have here in this lab. So it's been a great connection between learning the concepts in the classroom and then reinforcing them by actually seeing how they're used in a lab environment.

How have your research activities prepared you for your postgraduate plans?

Chelsea House: When I was a freshman, I told myself that I was never going to grad school, because I didn't want to put myself through that work. I had a friend at the time that was super excited about applying to PhD programs, and all I was thinking was "Wow, that sounds too difficult." I'm actually applying for PhD programs now, and it's because of the work that I did in the lab. I'm doing stuff that people have never done before, looking at things that people have never looked at. That's exciting to me and I want to do that in the future on my own.

Kaitlin Tyler: I'm still on the fence whether or not I want to go to grad school, but just working in a lab has made me realize that it is something that I could do. Whereas before grad school seemed kind of scary and really difficult, but now doing research as an undergrad has made me realize that I'm capable of doing it, and if I want to it's not completely out of reach.

What was the experience of helping to pull together a conference poster presentation like? Was it different to have that external deadline to pull together a set of results and be able to share them? How does that actually change what you're doing in the lab?

Sarah Meyer: It really helps to draw it all together. I feel like all of us are doing such specific tasks, but when you have to make a poster you need an abstract, you have to make a conclusion, you have to show every single step, and you have to show why you're doing the work. It kind of pulls it all together into the big picture.

Chelsea House: For me it brings in the big picture, because you may be focused on making little ceramic samples, but you may not know exactly what happens to those samples after you're done pressing them. If we didn't get to work on posters or read the papers that our grad student was drafting then we wouldn't know what happens after we touch our individual part of the project. And that's kind of cool to know.

Is there any advice you have for a first or second-year student who might be looking to get involved with research?

Chelsea House: Take the second Honors Chemistry lab (CEM 186H). That's how I got into it. Or do an Honors Research Seminar (UGS 200H).

Kaitlin Tyler: If you do have a Professorial Assistantship, make sure that you're specific about your interests, and talk to your mentor as the year progresses. Otherwise you end up in strange labs that don't make any sense. Like I did my freshman year before I found my current lab.

What have you learned about working with faculty from working in Dr. Baumann's lab?

Megan Buczkowski: I've learned that you generally work more closely with grad students in your day-to-day activities and meet with faculty to go over progress, project assignments and long-term goals. I've learned that Dr. Baumann writes fantastic letters of recommendation, she strongly emphasizes the importance of being a co-author of a publication and very strongly encourages that we apply for scholarships and national awards and fellowships (i.e. Goldwater, Churchill, NSF).

Kaitlin Tyler: I have learned that a lot of working with faculty involves working with their grad students as well. You work with your grad student every day while updating the professor every week on progress. I have learned that Dr. Baumann really wants the best for her students and pushes you so that you can do your best. She helps you in any way she can, which is really nice.

Craig Pearson: Dr. Baumann has been a vital contributor to my success in undergraduate research. She actively seeks opportunities for her students and—whether they like it or not—pushes them to explore new territory. I've learned how to behave professionally, how to approach problems, and how to set myself up for success. I look forward to continuing my work in Dr. Baumann's lab.🍀

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About the Contributors

After the Bed is Burned: Policy Analysis of Domestic Violence in Ingham County

Angela Fox | Political Science-Prelaw

Abstract

This paper examines the domestic violence system in Ingham County, specifically looking at policies designed to benefit victims of domestic violence through services offered and determines a.) that there are policies implemented to help victims after the Francine Hughes case, and b.) that those policies, while large steps in the right direction, could still be improved for future victims. In instances where the system is not working, the paper addresses the issues and possible solutions that can be implemented in the domestic violence system.

Introduction

In 1977, on the edge of Ingham County, Michigan, Francine Hughes set her husband on fire while he slept. In the landmark case that followed, Francine pled self-defense due to the 12 years of continuous domestic abuse she suffered at the hands of her husband and was found not guilty by reason of temporary insanity. Her trial marked the first time a plea of self defense for a domestic violence victim resulted in acquittal (Ahern 2009). It rested on the belief that given there were no victim services to help, no shelters, no way to report to an unbiased source, and no facilities in Ingham County to help her, Hughes could not retreat, leaving her to take the matter into her own hands (White 1997).

Relatively quickly after Hughes' case, Michigan's legislature passed Public Act 389 in 1978. This act defined domestic violence as "physical or mental harm to a family member" (Ahern 2009). This is the definition that is most familiar to the members of the domestic violence system. This act also provided for the Michigan Domestic Violence Prevention and Treatment Board, designed to allocate funding to advocacy services such as shelters, make policy recommendations, and provide training for police officers and oth-

er officials (Ahern 2009). However, it would be some time before this act was fully implemented in Ingham County or any criminal charges could be filed against abusers.

While Hughes' case marked the realization across the nation that something needed to be done to provide help for domestic violence victims, it was not until 1984 when a made for television movie, "The Burning Bed," aired that the lack of resources for victims became a serious issue. As Susan Schoultz, current Executive Director of End Violent Encounters (EVE), Inc., previously known as Council Against Domestic Abuse (CADA), said in a recent article commemorating the anniversary of the movie: "[The movie] mobilized people... [it] was so graphic, and that moved things forward. ... Public awareness jumped leaps and bounds at that moment" (Ahern 2009 6A).

After the movie, in 1994, domestic assault was added as a type of criminal assault, making it easier for prosecutors to charge abusers. Under Michigan law, in order to be charged with felonious aggravated domestic assault, a person must be convicted of at least two or more misdemeanor assaults against their spouse or dating partner. The maximum sentence for this crime is two years and/or a fine of \$2,500.¹ This law lacks sensitivity to domestic violence because it does not take the first or second assault seriously, making it so that the victim must report and go through the system at least three times before any serious punishment is given to the abuser.

These changes reflect what was happening at the state level, which preceded action in Ingham County. Action to help victims specifically in Ingham County did not take place until 1994 when the Capital Area Domestic and Sexual Violence Coordinating Council (CADSVCC) was established. This council consisted of agents from law enforcement, prosecutorial staff, court staff, and victim service and advocacy groups.

The Council established the first real communication between the different agencies, coordinating their efforts instead of pitting them against each other, putting together a system for criminal prosecution of domestic violence and help for victims. Previous to this council, each agency worked independently without communicating, making it difficult to coordinate.

As the domestic violence system stands today, different agencies are working together to create an inter-agency communication designed to help the victim get out of the violence through advocacy and support services and to hold the batterer accountable for the abuse through criminal punishment and batterer intervention therapy. Through focusing on keeping the victim safe with shelters and other advocacy resources, while treating the batterers and punishing them for their actions, the current domestic violence system works to help both parties involved in domestic violence relationships.

As the table below shows, the issue of domestic violence is still important and relevant for the county. Statistics taken from EVE, Inc.'s records through their Personal Protection Order Office and police records show that there were over 2,500 Personal Protection Orders (PPOs), commonly known as restraining orders, granted between 2008 and 2009 (Figure 1).² This demonstrates that there is still an issue of violence, as there is a need for PPOs for domestic violence victims.³ However, this also shows that services are available. If it were not for the PPO office being open to help victims and offering their service, they

would not have been able to gather these statistics.⁴ It also shows that violence is being reported, as victims are doing something to stop the abuse and putting it on the record that they want it stopped.⁵

Also, the number of domestic violence assaults for Michigan and for the greater Lansing area have risen, according to recent police report statistics (Ahern 2009). Around 4% of the domestic violence cases in the state were from Lansing alone (Ahern 2009). These statistics support the view that reporting has risen, not that domestic violence has increased (Ahern 2009). People are able to reach out for help and receive it, by reporting their abuse, whereas before they were not able.

Accordingly, this research aims to demonstrate that while there have been improvements to the domestic violence system, there are still ways that the system could be enhanced. The research separates the agencies into two types—victim's services and batterer accountability services—based on the chief goal of the service in an attempt to show that from either side of domestic violence, these improvements are sought. The interviews pointed to three major dysfunctions, and based on the recommendations of the officials, suggest solutions in those problem areas. This part of the research looks at the system through a critical lens, finding out what could make an already improved system even better.

Literature Review

In looking at domestic violence policy in Ingham County, Michigan, this paper aims to answer this question: Have reforms, including the criminalization of domestic violence, reporting, and availability of services offered to victims in Ingham County, since the Francine Hughes' case, and especially within the past 20 years, allowed the criminal process to become more sensitive to the needs of victims of domestic violence and improved their response to victims? In other words, will victims go through the same problems that Hughes went through, or has the new domestic violence system helped to change that? In answering these questions, the paper addresses not only the changes that have been made, but also the changes within the domestic violence system that still need to be accomplished. The interviews conducted, as well as the historical research discussed, show that officials and experts in the Ingham County domestic violence field believe that improvements have been made

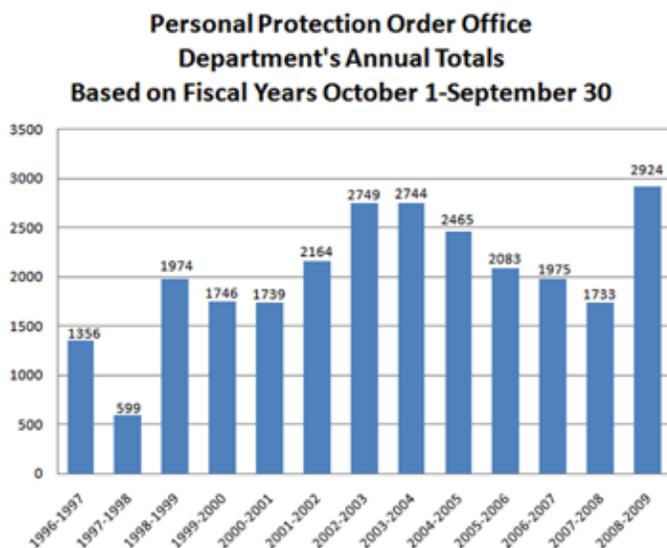


Figure 1: Personal Protection Order Service totals for the past decade. The total was 26,251 people served through the office.

to the domestic violence system as evidenced by the number and types of services offered.

In discussing domestic violence, the term “domestic violence system” refers to a multiplicative, inter-agency system that the police, prosecutor, court, and victim advocates work through to prosecute a case. The term “victim” refers to both those alleging abuse and those who have been proven to be abused. Some people juxtapose the word “survivor” for victim, especially within the domestic violence movement, but because this is a paper based on policies for the criminal justice system, and the majority of the agencies in this system use the term “victim,” this paper also uses this term.

This paper will add to the body of theory concerning policy implementation for domestic violence systems. Duluth, Minnesota is commonly studied for their domestic violence policy. Their focus is on an inter-agency model, similar to the one in Ingham County, which works towards victim safety and realizing that domestic abuse happens over a period of time, not, as legal models tended to represent, on a specific day or as a one time instance (Hague 1999). The Duluth Model focuses on power differentials between the batterer and victim, accounting for proportionality of violence as well as recognizing that power reaches beyond physical intimidation and into economic, psychological, and other forms of intimidation (Pence and McMahon 1999). This model recognizes that no two cases are exactly alike, and thus reaction must be conformed to a specific case. Last, the Duluth model recognizes that there is a need to coordinate between agencies throughout the domestic violence system, including the police, prosecutorial staff, victim services, as well as with the victims themselves (Pence and McMahon 1999).⁶ This research adds to this model by recognizing that Duluth is not the only inter-agency model that has helped change the system.

Ingham County’s model was studied in a similar way, but this research focused on the effects of funding levels, with Ingham County as a control group.⁷ This research argues that the improvements are not due to the inter-agency coordination, but due to improvements in funding such as in the Judicial Oversight Demonstration Resources Project (JODI).⁸ The research hypothesis was that given more funding, a domestic violence system will be able to serve more victims and work more smoothly. However, in their study, Ingham County was a control group, given no

money, and was able to work just as well as the test system.⁹ Funding does make a difference, however, in the variety of services that are offered. For example, although improving funding was not the first goal of the interviewees, they said that the amount of money available still needs improvement.¹⁰ Although Ingham County has had, and currently has, dedicated people, no group can succeed on a continual basis without some sort of funding, as shown by the Domestic Assault Response Team (DART) disbandment.

This paper contributes also to domestic violence research done on conditions in the domestic violence system, particularly the research published at the beginning of the domestic violence movement. In the 1980’s, Del Martin published a book to define domestic violence and describe the reality of the domestic violence system (Martin 1981). Specifically, she discusses the low priority it was given legally and socially (Martin 1981). In *Battered Wives* she examines training manuals for Michigan police academies, which show that domestic violence is portrayed as a family issue, not a legal issue, and thus there was a lack of training for agents in the system “to fully comprehend the plight of the abused woman (Martin 1981 93).”

Similarly, in 1977, the Michigan Women’s Commission produced a report sparked by the “lack of insight and/or indifference of the police, the inadequate legal remedies and suggestions of possible solutions” and proceeded to investigate the issue of domestic violence.¹¹ In this report, the Michigan Women’s Commission made recommendations based on their interviews for improvements to police and domestic violence system accessibility, particularly in regards to fees and civil remedies.

Methods

For this research, five officials in the domestic violence system of Ingham County were interviewed. Interviews lasted from twenty minutes to over an hour. A judge in a domestic violence court, a probation officer for a domestic violence court, work with victims of domestic violence, and batterer intervention groups also contributed to the knowledge behind the paper, but on an unofficial basis. These conversations were not specifically about this research, but about their experiences with domestic violence and Ingham County’s system in general. The author also spent time observing the court proceedings of PPOs as well as hearings reviewing batterers on probation.

During the interviews, questions were asked about each interviewee's personal background with the domestic violence justice system, and if applicable, the domestic violence movement. A second set of questions sought a basic understanding of how each person interviewed sees the domestic violence movement, including their function within that process and which steps of the process were most important to their involvement. A third set of questions asked about victims the interviewees helped, including the "typical" type of victimization they see and their "typical" victim.¹² This was to make sure that the interviews were not biased against a specific victim type. A final set of questions asked about policy, both within the agency the interviewee worked for and other agencies within the domestic violence system. This set of questions helped to establish what problems exist, while also creating a source of solutions. Because each of the interviewees agreed that the domestic violence system has made progress, the research focuses its analysis on what still needs to be done.

It is important to note the background the interviewees has with the domestic violence movement and the domestic violence system in order to establish their status as an official. One interviewee, an officer in the Lansing Internal Affairs Department, has not only been a patrol officer who has seen domestic violence cases firsthand, but also has seen them play out in courts as a court officer. The officer also works to train other officers at the academy or on the force about domestic violence.

The second interviewee, coordinator for the Personal Protection Order Office, has been active in the domestic violence movement for over 20 years. This person has been in charge of the Personal Protection Order Office for ten years, not only coordinating the office but also conducting training on personal protection orders for other agencies, including police departments and prosecutor's offices. This official is also a member of the Capital Area Domestic and Sexual Violence Coordinating Council, and the local Services, Training, Officers and Prosecutors (STOP) Subcommittee that determines how to allocate STOP funds provided by the national Violence Against Women Act.¹³ This subcommittee is comprised of law enforcement, prosecutors, court staff, and victim services staff, all working together to use these funds to help victims.

The third interviewee has worked with Michigan

State University's Safe Place and Capital Area Response Effort (CARE) as the Advocacy Coordinator since 2001 and currently works as both the coordinator and an advocate. The position was created in 1999 based on a government funded grant received through MSU Safe Place.

The fourth interview was conducted with a local attorney in Lansing who has been involved in the women's rights movement for over 20 years. She started working at EVE, Inc's shelter in 1986. She began representing domestic violence victims as their attorney in numerous types of cases in 1997 and continued it for over 5 years. She has also served on the Michigan Domestic Violence and Treatment Board, which was set up to provide funding and offer training in domestic violence issues.

The last official interviewee was an assistant prosecutor for Ingham County who has worked with domestic violence cases for 25 years. The interviewee started out as a defense attorney for the accused charged with domestic violence. Before the grant money ran out, he worked as the Domestic Assault Response Team (DART) assistant prosecutor, a program in the prosecutor's office for victims of multiple repeated offenses of domestic violence or extremely dangerous offenders.

My hypothesis was that no matter the nature of the interviewee's involvement in the domestic violence system, they will have seen an improvement in the system through changes in their fields or the initiation of their offices. If this is true, it is hypothesized that similarities will emerge in the problems and solutions the interviewees find still left to be solved.

Results

After the interviews were conducted, the notes were compared for commonalities. Information from the unofficial conversations and court watching served as further support for what the interviewees had to say. From the interviews, it was apparent that improvements are due to the inter-agency approach taken to address domestic violence and the improved work towards helping victims while holding the accused accountable. This approach, similar to the Duluth Model, uses coordination of agencies to help ease the burden and prevent revictimization of the abused. Having agencies work together, is a more efficient use of resources and less harmful to the victim.

Compared to 1977 when Francine Hughes was acquitted, there are now more services available for domestic violence victims. Apart from the domestic violence system, there are multiple women's shelters in Ingham County. Each of these women's shelters provides counseling, emergency hotlines for female victims and their family members, and information on other resources provided in the county, such as legal services or PPO's.

Victim Safety Services

Since Hughes's case, several agencies have been created in the domestic violence system to offer services to victims of domestic violence. These agencies work with victims of all types of socioeconomic and ethnic backgrounds. The types of abuse include physical, emotional, sexual, and others. This paper separates the services into two categories, victim advocate services and batterer accountability services, showing that the research and system consider both the victim and the batterer, countering possible bias against the batterer or towards the victim. First, services whose main goal is to keep the victim safe are categorized as victim advocate services. These services focus on empowering the victim with information and resources, which help to give the victim options and choices. Capitol Area Response Effort (CARE) is one of these services. It started in 1996, and is an advocacy effort that is able to go directly to homes where domestic violence has been reported and support the victims. CARE is called in by the police, but only in situations where the abuser is in custody or the police can ensure the CARE volunteer's safety.¹⁴ CARE provides a trained advocate to help answer questions the victim may have.¹⁵ Victims are also usually reluctant to work with the domestic violence system, partly because they do not know what will happen or how the system works.¹⁶ CARE also provides referrals to other services, such as the Personal Protection Order Office, or to shelters in the area such as MSU Safe Place or EVE, Inc. After the initial visit, CARE provides advocates that are able to answer questions and provide moral support to victims throughout the domestic violence system.

The Personal Protection Order Office is a victim advocate service in Ingham County, funded through federal grants and is a part of EVE, Inc., which started the office in 1996. Their main service is to help victims file for personal protection orders by giving them de-

tailed instructions and providing appointments with staff to go over the paperwork. This office also can help with referrals to shelters, legal services, counseling and offering moral support during hearings in court regarding the client's PPO. This office keeps clients updated on the status of their PPOs. Neither the CARE Office nor the PPO Office was available in 1977. Yet today, they are able to help thousands of victims, as shown in Figure 1.

Batterer Accountability Services

The next set of agencies have the main goal of holding the batterer accountable, while also providing services for the victim. These agencies tend to take responsibility for decisions to report, prosecute, or hold the abuser accountable, in an effort to reduce the guilt felt by victims by taking away their responsibility for the arrest or punishment of the abuser. The police are one of these agencies within the domestic violence system. Most of the domestic violence system and inter-agency cooperation policies for the police department started in 1996 with the CARE program. If a call is determined to be an act of domestic violence, police officers will call in CARE to help the victim once the police leave. Departments in Ingham County such as the Lansing Police Department, in partnership with a local photography studio, have also made it possible for victims to get professional quality photos of their injuries.¹⁷ This helps to not only take the burden off the victim to provide these photos, but it helps in prosecution by providing useful, high-quality visuals for jury trials. The police are required to take pictures at the time of report as well. Officers have the ability to arrest accused batterers without a warrant, and given probable cause, are required to do so.¹⁸ This takes the decision out of the hands of the victim, shifting the responsibility of arrest from the victim to the police.

While at the scene, officers work to build the case against the accused, because they are trained to understand three things: that victims will lose their things the longer it takes for case to come to trial, that they are usually the first contact the victim has with law enforcement, and that they need to show that they are working for the victim.¹⁹ The training to implement these procedures is part of the continual domestic violence training offered to officers. Police officers are also trained on issues regarding typical victim patterns as well as typical batterer manipula-

tions. Each of these policies can be compared to the reports made by the Michigan Women's Commission or Martin (1981) about police procedure in 1977. The new policies that provided training on domestic violence made the policy of the department to be pro-arrest rather than reluctant to deal with the issue, and made the goal to keep the victim safe and hold the accused accountable.

The prosecutor's office works towards holding batterers accountable in order to help victims. They offer a program known as Domestic Assault Response Team (DART). It works, with the probation office and a victim advocate, to create one assistant prosecutor position whose main job is to handle the domestic violence cases that are severe or serial in nature, meaning that the abuse is extremely violent or happens on a repetitious basis. The model uses evidence-based prosecution, meaning that their prosecution relies on evidence, and not solely on victim testimony to corroborate events.²⁰ Having one assistant prosecutor working on the case also helps to build trust with the victim, as the continuity means they are not relying on a new prosecutor each time they go to court, having to relive their ordeal to bring another prosecutor up to speed. It also helps the prosecutor get to know the victim, build rapport, and understand the victim's needs.²¹

Having one prosecutor also helps to hold batterers accountable. The DART program collects a list of batterers and victims, helping to keep track of those that have already been in the domestic violence system, should they have to go through it again. This prevents victims from getting lost in the system, and it helps to hold repeat batterers accountable. The list lets prosecutors automatically know that the accused has been in the system before, whether or not they were convicted, often providing more evidence to use in their case. Keeping track of batterers' repeat offenses or violations also means they will be caught for probation violations faster.²² The DART program aims to show batterers that the system takes every aspect of the case seriously, from report to probation.

The last agency that works for victims through batterer accountability is the court system. Judges in Ingham County have implemented two domestic violence courts: District Court 54-A started their domestic violence court in 2004 and the 55th District Court started its court in 2006, based on the model in 54-A. In this model, created by Judge Amy Krause, a case is

streamlined through the process, on the theory that the longer the case is drawn out, the less willing the victim will be to participate. No Contact orders are administered at arraignment, preventing the accused from contacting the victim, automatically providing the victim with a form of protection. The streamlined case system also shortens the time frame of the proceedings, where arrest to arraignment is 24 to 48 hours, and there are at most 2 weeks from arraignment to pre-trial, demonstrating sensitivity to the reluctance of victims to participate.²³ Once convicted, the batterer is assigned to probation that includes a treatment program and case reviews by the judges throughout probation. The model is also "team based" meaning that judges work closely with prosecutors, police, victim advocacy services, and batterer intervention programs.²⁴

Other Services

There are other services that are sometimes involved in the domestic violence system. Child Protective Services protects the children of domestic violence homes, usually by taking them out of the home and violent situation.²⁵ Child Protective Services also has to hold parents accountable, and usually that blame falls on the victim of domestic abuse for not being able to protect the children by taking them out of the violent home.²⁶ This causes problems for reporting because if the official responding to a report of domestic violence suspects violence has affected the children, a report needs to be made to Child Protective Services.²⁷ Many times victims report violence to protect their children, but in doing so they put their children in risk of being taken away, which can be a strong disincentive to report domestic violence.²⁸

The services offered by the police, prosecutor's office, and judges were not available when Hughes took the stand. The availability of these services shows that changes have been made in Ingham County to improve the domestic violence system. Cases are considered more serious than before and the system works to reduce the second victimization, rather than contribute to it.

Discussion

Even after these changes, the interviewees all noted that there were three main areas that still needed im-

provement: education, funding, and communication. This is not to say that improvement has not been made in these areas since the 1970's, but simply that the interviewees would like to see more done. Each interview participant labeled one of the following as an important change that they would like to see in the future.

1.) Education

Improved education for agency operatives and the public in general on both victim and abuser behavior is necessary. A victim is not going to act in a "typical" way. They may not be completely willing to help prosecute the abuser or may not completely trust the police or prosecutor with their safety. Rather, the victim will act in a way suited for survival, working to protect themselves and relying only on themselves for safety. This sometimes requires that the prosecutors or police officers need to be particularly cautious or careful in order to gain a victim's trust and cooperation. Other factors inhibit a victim's ability to cooperate, including a continuing relationship with their batterer, family members who may not be supportive of their reporting the abuse, difficulty convincing outside parties that abuse has taken place, or economic dependence on the accused and that makes them unable to seek resources or cooperate with the domestic violence system. This list is not exhaustive of other factors that inhibit a victim's ability to report or prosecute an abuser.

Working with victims also requires an understanding of batterers. Batterers use power and control to manipulate victims and the situation around them to work in their own favor. Batterers, disregarding No Contact orders, may tell lies or prey on the victim's lack of knowledge of the domestic violence system to get the victim to drop charges. They may also invoke fear of consequences in victims through non-verbal intimidation. Understanding these relationships, among others, is key to working with domestic violence. Without it, officials within the system will not see the actions of victims and batterers for what they are.

Training in these areas is already provided, and has improved since 1977. For example, as shown before, police officers receive continuous training on domestic violence, no longer just a brief discussion at the police academy like at the time of Hughes' case. However, no matter how many training seminars responders

attend, they have to either be open to the topic or held accountable for lack of compliance for these trainings to be effective.²⁹ Education is also necessary for supervisors to ensure accountability in their subordinates.³⁰ Simply put, employees want to please their employers to keep their jobs. The same is true for judges and prosecutorial staff.³¹ Ingham County is fortunate now to have two judges and several prosecutors that understand domestic violence, but training and education on the subject should be given to newly elected officials in order to best serve the public.

Education for other agencies is necessary as well. This is particularly true for Child Protective Services, according to the interviewees.³² Because the definition of what is in the "best interest of the child" usually means taking them out of a violent home, victims and their children are often separated if the victim reports abuse.³³ However, the interviews indicate that an understanding of the complexities in a domestic violence relationship would help CPS find better solutions for victimized families and could lead to policy change by holding batterers accountable for neglect, rather than the victim.³⁴

Lastly, education for the public is needed.³⁵ This includes education for the communities where the victims and batterers live, as well as education for the victims and batterers themselves. If communities were better educated on domestic violence, they would be able to help support victims. This may mean giving a victim time off to go to the many court dates, providing extra childcare, or simply recognizing the signs that a person is being abused and stepping in to help, if possible. It also could mean intervening with the batterer about their action, or recognizing their manipulations and personas.

2.) Funding

As Hague (1999, 17) pointed out, "One of the largest issues facing inter-agency initiatives is lack of resources." Most services offered in the domestic violence system are free of charge to victims, meaning they require grants or public support. Grants in the current economic climate are becoming more difficult to procure. At the time of writing, the DART system has been disbanded due to loss of its grant. This means that serial batterers are not being tracked, and the seriousness of cases is not given as high a priority as it could be.

Funding for legal services is needed, too. Many victims do not know their rights, and need to seek legal counsel. Previously, there was a program called “Access to the Justice” provided by Legal Services in Ingham County which provided victims of any crime opportunities to talk to a lawyer and ask questions for free.³⁶ Yet this too was discontinued due to a lack of funding, and now the only way for victims to get legal advice is to pay for it out of pocket. The hardships of this financial burden are doubled when the victim is financially dependent on the batterer. With more funding, not only could the system reinstate lost programs, but it could also become able to help victims on a more specialized or personalized basis. Police departments could provide a domestic violence unit, with specially trained detectives.³⁷ The prosecutor’s office could have a full-time domestic violence assistant prosecutor as well as a DART prosecutor, both of whom would be specially trained.³⁸ The inter-agency approach could be housed in one building, providing for the victim an abundance of services all under one roof.³⁹ Right now, if a victim needs to see a detective and a prosecutor, they have to travel to two separate locations, which can be difficult, especially if the victim has limited or no transportation. If a detective has a question about PPOs they have to call the office and leave a message, until the confidentiality release is verified. However, if these agencies were all held in one building, a victim would only have to go to one location and questions could be answered right away.⁴⁰

3.) Communication

The specialized domestic violence unit described above would also help with inter-agency and intra-agency communication. For example, CPS could become part of the inter-agency dialogue to help victims and their children stay together, while still keeping the children safe. Also, communication improvement is needed in the form of follow-up with victims and batterers, especially those that do not make the DART list.

Improved communication could also lead to constructive criticism, helping each part of the system to progress so that no agency is left behind, providing a better system of accountability for each agency. If each component is able to freely discuss what they see as improvements that need to be made, they will feel more invested in the system, which in turn makes them want to improve the system more, including in their own office. The cooperation that results would be felt by vic-

tims. If a victim has “a team of advocates” surrounding him or her, they “will have more faith in the system.”⁴¹

Finally, communication is to improve within agencies. This is similar to the function of the DART system. If communication is improved within the agencies, victims are less likely to fall through the cracks, and batterers are more likely to be held accountable, quicker. For example, a domestic violence detective unit would help to improve communication because it would centralize the cases and who is dealing with them.⁴² Additionally, communication within an agency would help to show that domestic violence is a priority for that agency. If administrators and those in top positions communicated the expectation that domestic violence be treated seriously, more of the department would see domestic violence as an important issue.

Conclusions

This research addresses the fact that domestic violence is still a major national social issue. Even though improvements have been made, the system cannot become stagnant, as progress is still needed. New policies need to be developed, and new funds provided. People in all areas of life, including federal and local governments and members of the community need to be educated about domestic violence in order for them to play their part. Progress and changes can still be implemented, victims are still coming forward, and that means Ingham County, and the nation and world at large, still need to work on this issue.📌

Acknowledgements

I would like to acknowledge and thank my thesis chair, Dr. Ostrom, for his help, recommendations and advice on this project. I would also like to thank my interviewees for taking to the time to help me understand and for doing what they do for the survivors. I would like to thank my thesis committee member Dr. Dobson for their valuable review of my work. Lastly, I would like to thank Dr. Sarkissian for the instruction and constant advice even outside of the classroom.

Endnotes

1. 1931 Public Act 328, MCL750.81.

2. Chart provided by my interview with Tonya Avery, PPO Legal Advocacy Coordinator. Chart on file with the author.
3. Provided by my interview with Tonya Avery, PPO Legal Advocacy Coordinator.
4. Ibid.
5. Ibid.
6. The information described in the is paragraph can also be found at the Duluth Domestic Abuse Intervention Programs website: <http://www.theduluthmodel.org/history.php>.
7. Batterer Intervention Services Coalition Michigan, Judicial Oversight Demonstration Resources, <http://www.biscmi.org/jod/jodresources.html>, 2010.
8. Ibid.
9. Ibid.
10. Provided by my interview with Tonya Avery, PPO Legal Advocacy Coordinator.
11. Michigan Women's Commission, Domestic Assault: A Report on Family Violence in Michigan, 1977.
12. The word "typical" is included in quotes to signify there is not a typical victim, each victim is unique and has unique experiences.
13. Violence Against Women Act 1994
14. Erica Schmittdiel, personal communication, April 2010. Copy of the interview kept by the author. Sgt. Cherie Ballor, personal communication, April 2010. Copy of the interview kept by the author.
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31. Tonya Avery, personal communication, April 2010. Copy of the interview kept by the author. Katy Conklin, personal communication, April 2010. Copy of the interview kept by the author. Erica Schmittdiel, personal communication, April 2010. Copy of the interview kept by the author.
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Highlights of Undergraduate Literature

MSU undergraduates publish and present their work in a wide range of scholarly venues. Below are summaries of their work.

Better Methodological Tools for Resource-Based Theory

Simon Golden worked as part of a research group led by Dr. Janice Molloy to perform a survey of recent empirical tests of resource-based theory (RBT) that showed that measures of intangibles often lack theoretical justification, which undermines the measures and the findings. The survey also showed that intangibles tend to be measured with a unidisciplinary approach. In light of this, the authors provide a new approach called the multidisciplinary assessment process (MAP). MAP allows researchers to create theories of intangibles specific to one RBT study.

Molloy, J., Chadwick, C., Ployhart, R., and Golden, S., Making Intangibles “Tangible” in Tests of Resource-Based Theory: A Multidisciplinary Construct Validation Approach, *Journal of Management* (Forthcoming).

WIC Providers and Nutrition Education for Low-Income Pregnant Women

Lauren Pavlik and Tara Bradsher worked with Dr. Mei-Wei Chang to identify the practices and challenges of Special Supplemental Nutritional Program for Women, Infants, and Children (WIC) dietitians and nutrition educators, and their recommendations to lower-income pregnant and postpartum women regarding healthy eating. The authors found that WIC providers applied motivational interviewing techniques and the Stages of Change Model to encourage low-income pregnant women to practice healthier eating habits, but encountered several challenges, including clients’ lack of social support and limited literacy, time constraints of WIC providers, and the lack of available healthy foods for WIC beneficiaries.

Pavlik, L., and Bradsher, T., WIC Providers’ Practice and Challenges Involved in Providing Nutrition Education to Low-Income Pregnant Women, Nursing Research Day, Lansing, MI, 19 March, 2011.

Immobilizing Nanoparticles and Potential Uses in Intrinsic Kinetics

Thomas Fielitz worked as part of a research group led by Dr. Robert Ofoli to study the immobilization of catalytic palladium nanoparticles in a microfluidic reactor. Biotinylated palladium nanoparticles were immobilized on aminopropyltrimethoxysilane (APTMS)-modified polydimethylsiloxane (PDMS) and glass surfaces and APTMS stabilized palladium nanoparticles were immobilized onto glass and PDMS rich in hydroxyl groups. These systems demonstrate potential as an evaluation tool for catalytic nanoparticles and to provide an assessment of intrinsic kinetics.

Lin, R., Freemantle, R., Kelly, N., Fielitz, T., Obare, S., and Ofoli, R., In Situ Immobilization of Palladium Nanoparticles in Microfluidic Reactors and Assessment of Their Catalytic Activity, *Nanotechnology* 21 (32), 325605, 2010

The Persistence of a Political Elite from the Ottoman Empire to Contemporary Turkey

Alyssa Meyer worked with Dr. Folke Lindahl to examine the influence of the Ottoman Empire on the political structure of modern-day Turkey. Persistent characteristics from the Ottoman Empire include the adoration of those in power and the belief that the unelected elite can make decisions in the interest of all those that they rule. Examples such as military practices and the Constitutional Court show that the elite governs, nearly exclusively, in Turkish politics. This leads to the conclusion that regime changes in which elite groups maintain power tend to maintain previous perceptions of authority.

Meyer, A., Turkish Political Development and Its Elites: Examining the Causes of Military Intervention, Phi Beta Delta Annual Conference, Long Beach, CA, 31 March, 2011

Media Coverage and Public Perceptions of the European Union

Isabel Laczkovich worked with Dr. Norman Graham and Dr. Mark Axelrod to focus on the negative media images of the European Union (EU). Although in reality the EU has done neither spectacularly well nor extremely poorly, this “ok” performance does not seem to sit well with the general public. Questionnaires distributed to 433 citizens of EU member countries show that most people believe strong visionary leadership, positive media coverage, and the building of a stronger identity will allow the EU to construct the unity it needs to become stronger.

Laczkovich, I., The European Rhythm: Two Steps Forwards One Step Backward, Phi Beta Delta Annual Conference, Long Beach, CA, 1 April, 2011.

Competition and Evolvability in a Large *Escherichia coli* Population

Mark Kauth worked as part of a research group led by Dr. Richard Lenski to test the hypothesis that competition between asexual lineages can lead to second-order selection for greater evolutionary potential through the examination of frozen *Escherichia coli* from a long-term evolution experiment and the comparison of them to four genetically distinct clones.

Woods, R., Barrick, J., Cooper, T., Shrestha, U., Kauth, M., and Lenski, R., Second-Order Selection for Evolvability in a Large *Escherichia coli* Population, *Science* 331 (6023), 1433-1436, 2011.

Evaluating Mutations and Evolvability in *Escherichia coli*

Mark Kauth worked as part of a research group led by Dr. Richard Lenski to use genetic marker divergence trajectories to parameterize and compare the evolvability of a series of *Escherichia coli* mutants on multiple time scales. The results establish quantitative expectations for how a mutation with a given deleterious fitness effect is expected to influence evolvability.

Barrick, J., Kauth, M., Strelhoff, C., and Lenski, R., *Escherichia coli* rpoB Mutants Have Increased Evolvability in Proportion to Their Fitness Defects, *Molecular Biology and Evolution* 27 (6), 1338-1347, 2010.

Characterization of a Novel Coordination Polymer Solid

Amy Pochodylo worked with Dr. Robert LaDuca to characterize the structure of six luminescent divalent zinc copolymers containing isophthalate and bis(4-pyridylmethyl)piperazine ligands. They found that “bulkier substituents of the 5-methoxyisophthalate ligands appeared to promote a reduction in the dimensionality to a simple polymeric grid (p. 2258).” Further, they reported, “in all cases, cooperative effects between coordination geometry, dicarboxylate binding mode, and the covalent and supramolecular interactions provided by the bpmp ligands are responsible for structure direction in this system (p. 2258).” Their work adds to the body of literature on zinc copolymers, compounds that are often used in the production of materials for industrial applications.

Pochodylo, A., and LaDuca, R., Topological Diversity in Zinc Coordination Polymers with 5-substituted Isophthalate and Bis(4-pyridylmethyl) piperazine Ligands. *CrytEngComm* 13 (7), 2249-2261, 2011.

Challenges Faced by WIC Providers in Promoting Physical Activity Education

Kelsey Soronen worked with Dr. Mei-Wei Chang to understand the strategies used and challenges faced by Special Supplemental Nutritional Program for Women, Infants, and Children (WIC) providers in educating low-income, pregnant women about physical activity. The authors found that providers practiced many different strategies to encourage low-income, pregnant moms to become more physically active, while encountering challenges, including clients’ lack of motivation to make changes, residence in unsafe neighborhoods, and lack of access to free community resources.

Soronen, K., Doud S., Buist D., Cain D., Horning S., Talley C., Chang M., WIC Providers’ Practice and Challenges of Physical Activity Education, 19th Annual Greater Lansing-Community Research Day, Lansing, MI, 17 March, 2011

Critiquing Leibniz’s Discourse on Metaphysics

Seth Elliott worked with Dr. Debra Nails to critique Gottfried Leibniz’s theodicy, or his explanation for an omnipotent, benevolent God who allows evil to exist. Leibniz’s theodicy hinges on the argument that a God possessing all possible perfection would not create an imperfect world arbitrarily, and thus the world that exists is the best of all possible worlds. Leibniz, however, fails to account for how God could have a reason to create the world, since it would not be possible to add to the perfections of a God who possesses all possible perfection, and thus the creation of the world cannot be other than arbitrary.

Elliott, S., Arbitrary or Imperfect? The Problem of Evil in Leibniz’s Discourse on Metaphysics, 2nd Annual Bucharest Graduate Conference in Early Modern Philosophy, Bucharest, Romania, 8 March, 2011.

Measuring Helpfulness in Online Peer Review

Christopher Klerkx worked as part of a research group led by Dr. William Hart-Davidson to describe a method of evaluating peer review in online systems through a system to calculate the helpfulness of reviewer responses on an individual basis. The team’s

research focused on the development of specific machine scoreable quality indicators in online peer review.

Hart-Davidson, W., McLeod, M., Klerkx, C., and Wojcik, M. A Method for Measuring Helpfulness in Online Peer Review. SIGDOC 2010: The 28th ACM International Conference on Design of Communication, New York, NY, 28 September, 2010.

Identifying Materials to Improve Steel and Titanium Implants

Robert Friederichs worked as part of a research group led by Dr. Melissa Baumann to test the properties of tetrahedrally bonded DLC films (ta-C) deposited at low temperatures by physical vapor deposition on medical grade $\text{Co}_{28}\text{Cr}_6\text{Mo}$ steel and the titanium alloy $\text{Ti}_6\text{Al}_4\text{V}$. Comparing t-test data for ta-C coated samples and uncoated control samples showed improved wear and corrosion and improved cell viability compared to uncoated $\text{Co}_{28}\text{Cr}_6\text{Mo}$ steel and $\text{Ti}_6\text{Al}_4\text{V}$ implant materials in current use.

Hinüber, C., Klemann, C., Friederichs, R., Haubold, L., Scheibe, H., Schuelke, T., Boehlert, C., and Baumann, M., Biocompatibility and Mechanical Properties of Diamond-like Coatings on Cobalt-Chromium-Molybdenum Steel and Titanium-Aluminum-Vanadium Biomedical Alloys, *Journal of Biomedical Materials Research* 95A (2), 388-400, 2010.



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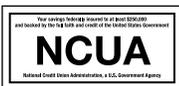
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Quietude Check

Tyler Vander Maas | Jazz Studies

171 **N** Intense

Alto Sax. *P*

Tbn. *P*

Pno. *P*

U. Bass *Intense*

176

Alto Sax. *mp* *mf*

Tbn. *mp* *mf* with pedal

Pno. *mp* *mf*

U. Bass *mf* *f*

181

Alto Sax. *f*

Tbn. *f*

Pno. *f*

U. Bass *ff*

187

Alto Sax.

Tbn.

Pno.

U. Bass

190

Alto Sax.

Tbn.

Pno.

U. Bass

wild

wild

wild

wild

pizz.

ff

wild

Composer's statement:

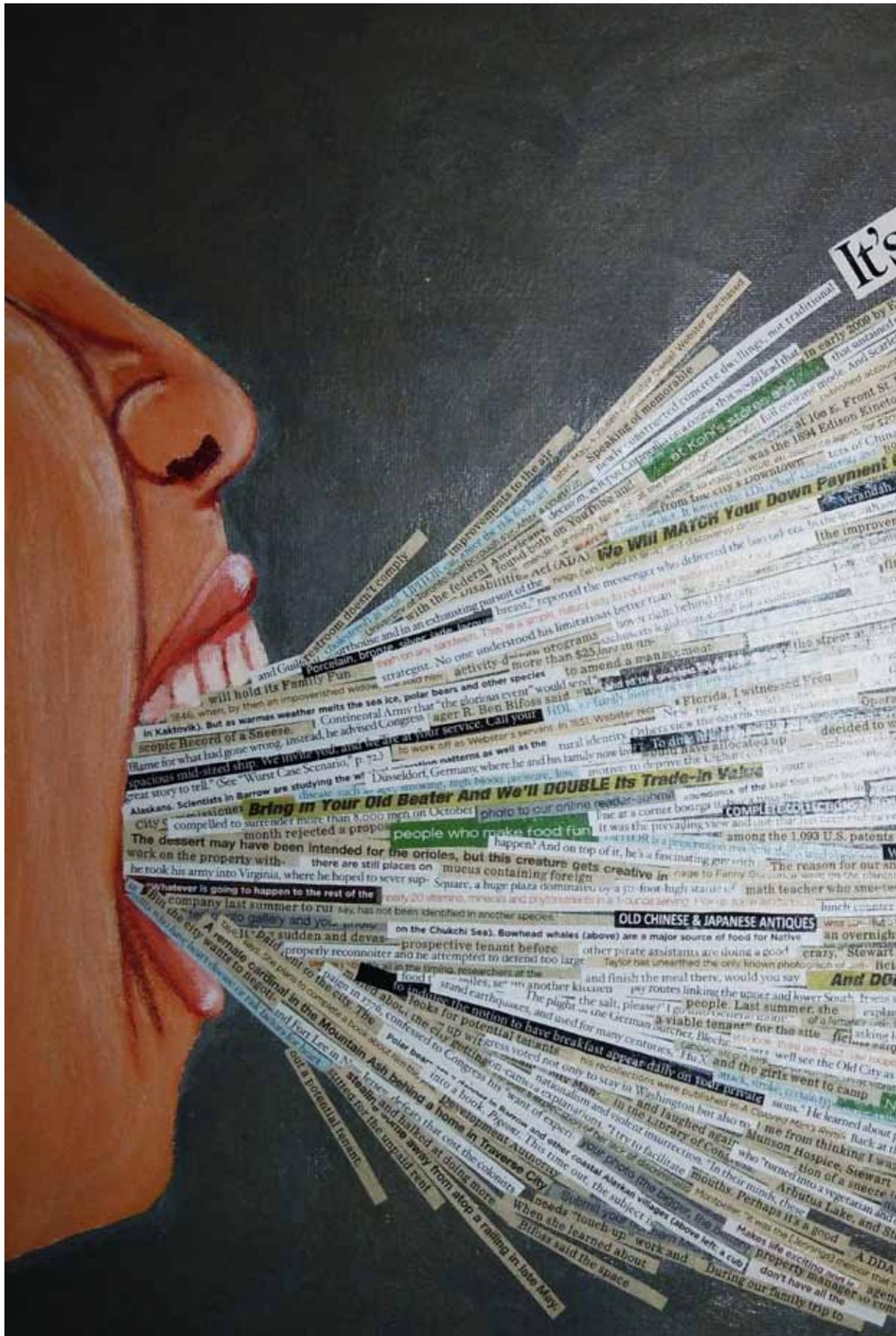
"Quietude Check" is the result of my trying to get away from the traditional jazz forms, while keeping improvisation as a key component to the music. Up until this piece, all of my compositions had been organized in a very similar fashion: melody, solos, and then melody again, with the only variations being a possible intro, alternate ending, or maybe a brief contrasting section before going back to the melody. This general form had been what I had learned about through studying and playing the jazz repertoire.

Studying with a composition teacher though, I got another perspective on how to approach form. I worked on this piece with a doctoral composition student here at MSU, Victor Marquez, and we decided to create two themes off of which to base the piece. There are two distinct characters in "Quietude Check," and the form is based off of the transitioning and melding of these two ideas. The first character is the faster moving, tense section at the beginning of the piece, while the second is the tranquil theme in the middle.

The story of the piece is described in these characters. The word "quietude" means tranquility, which is heard in the second theme. Moreover, the piece is concerned with one's awareness of their own tranquility. The first theme is that part of someone that is tense and worried, and altogether not very held together. Even when that person is at peace though, some of that uneasiness still comes through, and that can be heard in the moments of tension in the second theme. Throughout the rest of the piece the melding of the concepts is important, and is strongest in the closing statement. Listening to the ending might lead one to believe that whoever this is, might just need a check up, or that the I am making a dark, philosophical statement about humanity.

“Welcome to an ev

Allison Szatkiewicz



Even quieter world”

English and Arabic



Protective Factors and Behavioral Concerns in Head Start Children

Erika Vivyan¹ and John Carlson² | ¹Residential College in the Arts and Humanities, ²School Psychology Program

Abstract

This study assesses the prevalence of protective factors and behavioral concerns among children in a Midwestern Head Start sample. Results from 1,410 adult ratings of children's behavior from 2009-2010 indicate that the prevalence of low protective factors was 22.9% (mean score=49.0, standard deviation=10.7) and the prevalence of high behavioral concerns was 48.8% (mean score=58.2, standard deviation=10.3) in this low-income, at-risk sample. These results are substantially higher than those previously reported in the literature. Consistent with prior studies, gender differences were found as well. Ratings of boys' protective factors were significantly ($p<0.001$) lower (mean score=47.8, standard deviation=10.8) than girls' (mean score=50.2, standard deviation=10.4), while boys' behavioral concerns were significantly ($p<0.001$) higher (mean score=59.4, standard deviation=10.0) compared to girls' (mean score=57.1, standard deviation=10.5). Elevated levels of parent-rated behavioral concerns and depressed levels of protective factors within this preschool sample shows that low income children may be more at risk than their same-age peers for later social-emotional problems. A dual model of assessing mental health risk further indicates that boys within our Head Start sample are especially in need of early intervention mental health services.

Introduction

Children from low-income families are particularly at risk for developing behavior problems (Qi and Kaiser 2003). Due to the current economic downturn in Michigan, more and more children are growing up in conditions of poverty (Oades-Sese et al. 2010). Children and families may be demonstrating greater social-emotional needs due to these challenging ecological factors. Early identification of those within-child factors that create further social-emotional risk is essential for promoting successful developmental functioning in young children. Social-emotional risk is linked to low protective factors (e.g., competencies

that promote positive mental health outcomes) and high risk factors (e.g., characteristics which may lead to mental health problems). Early social-emotional risk can negatively influence the development of protective factors and increase behavioral concerns, so it is important to identify and address those areas in order to increase the likelihood of positive developmental outcomes (Harden et al. 2000; Shultz et al. 2010).

Research indicates that prevalence of high behavioral problems in Head Start samples is between 16% and 30% (Harden et al. 2000; Qi and Kaiser 2003). This number is notably higher than the 11.0% prevalence for the general population in the 1980s (Earls 1980). More recently, a literature review by Brauner and Stevens (2006) indicated a range for the general population between 5% and 26%, depending on the measure used. It seems that there is a measurable increase between Head Start children, an at-risk population, and the general population when it comes to social-emotional problems, but that relationship is not fully understood.

The prevalence of low protective factors and high behavior problems seem to differ between boys and girls, although results are inconclusive (Earls 1980; Harden et al. 2000; Qi and Kaiser 2003; Randolph et al. 2000). In some studies, girls are identified as presenting more problem behaviors (Earls 1980; Randolph et al. 2000). In many others, boys seem to present more problem behaviors (Harden et al. 2000; Qi and Kaiser 2003). This conflicting evidence from a wide range of behavioral measures remains an important area for further study.

Several assessment techniques look at the identification of protective factors and/or risk factors (e.g., problem behaviors) in early childhood samples. These measures include the Preschool Behavioral and Emotional Rating Scale (PreBERS), the Resiliency Scales for Children and Adolescents (RSCA), the ClassMaps Survey, the Devereux Early Childhood Assessment (DECA), the Devereux Student Strengths Assessment

(DESSA), and the Schultz Test of Emotion Processing – Preliminary Version (STEP-P) (Epstein and Synhorst 2008; Griffith et al., 2010; Prince-Embury 2010; Schultz et al., 2010). For this study, a dual mental health model involving a measure that examines both protective factors and behavioral problems was used. This strengths-based early identification process using the DECA (LeBuffe and Naglieri 1999) adds to the current literature base, which predominantly uses a deficit-based approach.

The research questions addressed in this study included the following:

1.) What are the prevalence rates of protective factors and behavioral concerns in this Head Start sample?

2.) What gender differences are there in protective factors and behavioral concerns in this Head Start sample?

Methods

The subjects of this study were 1,410 adults who rated children enrolled in a Head Start program in a diverse four county region in the Midwest during the 2010-2011 school year. The adult ratings on the DECA were provided by 1200 mothers (85.1%), 103 fathers (7.3%) and 107 “other” raters (7.6%) such as a grandparent or guardian. These adult ratings for children between the ages of 2 years, 10 months and 5 years, 11 months of age were analyzed. Head Start programs typically enroll children after 3 years of age, but a few exceptions are made for children who are close to this age at the time of enrollment. The average age of children rated was 47.9 months (approximately 4 years) with a standard deviation of 6.6. The DECA forms collected represent 701 (49.7%) female ratings and 709 (50.3%) male ratings.

Adult-rated DECA forms were completed as a part of enrollment packets (i.e., contact information, child background questionnaires) for the Head Start program. Parents and guardians of children enrolled in Head Start filled out the Devereux Early Childhood Assessment (DECA) form based on perceptions of their children’s behavior in the home and community. The DECA is a nationally normed behavior rating scale that assesses a child’s protective factors and screens for behavior problems. It has been proven to be a valid, reliable measure (Oades-Sese, Kaliski, and Weiss 2010; Ogg et al., 2010). The DECA uses

27 items to assess protective factors through the report of positive behaviors such as “responds positively to adult comforting when upset,” and “tries or asks to try new things or activities.” The Total Protective Factors (TPF) score is broken into three subscales labeled Initiative (IN), Self-Control (SC), and Attachment (AT). The DECA also uses 10 items to screen for problem behaviors such as “destroys or damages property.” This score is reported as Behavioral Concerns (BC). The three main purposes of the DECA (LeBuffe and Naglieri 1999) are: (1) to identify children who are “low” on protective factors for possible home or classroom interventions, (2) to screen for children exhibiting behavioral problems that require further investigation, and (3) to generate classroom profiles that show relative strengths and problems for all children in a classroom so that educators can build on strengths, provide ways to develop weaknesses, and better understand the classroom for classroom design and curriculum planning purposes.

Poem Written For You Past My Bedtime

Leila Chatti | Residential College in the Arts and Humanities

*You know, some nights I get so crazy
thinking with nothing but stars to cage me in,
and there’s a moon above your bed, and one
outside the window over my head, where I am
looking up, dreaming of a boy who’s dreaming
of universes I’m not the center of, and when
I breathe in the night, I’m recycling air inhaled
by dinosaurs and presidents, the remnants
of a blast we could have kissed beneath
like fireworks, fingers linked watching a galaxy
still young enough to name, and your tired head
is laying out of reach and I wish that I could speak
a language only you could understand, tossing
my voice like pebbles at the windowpane
breaking the silence, breaking the sleep.*

LeBuffe and Naglieri 1999) are: (1) to identify children who are “low” on protective factors for possible home or classroom interventions, (2) to screen for children exhibiting behavioral problems that require further investigation, and (3) to generate classroom profiles that show relative strengths and problems for all children in a classroom so that educators can build on strengths, provide ways to develop weaknesses, and better understand the classroom for classroom design and curriculum planning purposes.

Table 1: Prevalence of Low Protective Factors and High Behavioral Concerns

	Strength (T-score ≥ 60)	Typical (41 ≤ T-score ≤ 59)	Concern (T-score ≤ 40)
Total			
Protective Factors (TPF)	228 (16.2%)	859 (60.9%)	323 (22.9%)
Initiative (IN)	249 (17.7%)	889 (63.0%)	272 (19.3%)
Self-Control (SC)	256 (18.2%)	906 (64.3%)	248 (17.6%)
Attachment (AT)	293 (20.8%)	808 (57.3%)	309 (21.9%)
Behavioral Concerns (BC)		722 (51.2%)	688 (48.8%)
		Typical (T-score ≤ 59)	Concern (T-score ≥ 60)

The data collected was entered into the “e-DECA 2.0” online database for 33 individual Head Start sites. Aggregate Reports for the Preschool Assessment Form Pre-Rating by Parents in the fall of 2010 were collected for each site. These results were combined to provide results for 1,410 DECA ratings on Total Protective Factors (TPF), Initiative (IN), Self-Control (SC), Attachment (AT), and Behavioral Concerns (BC). Basic descriptive statistics, frequencies, and t-tests were performed using PASW Statistics 18.0 (SPSS). It is noted that all subscales on the DECA have an average T-Score of 50 and a standard deviation of 10.

Results

Of the 1,410 DECA ratings collected from this Head Start Program, 323 (22.9%) had a Total Protective Factors (TPF) T-score at or below 40, which according to DECA authors indicates that the child needs improvement in that area (see Table 1). The average TPF T-score was 49.0 with a standard deviation of 10.7 (see Table 2).

Ratings for Behavioral Concerns (BC) indicated that 688 (48.8%) had a T-score at or above 60, which according to DECA authors indicates that the child is at risk for behavioral problems and is in need of a more comprehensive assessment (see Table 1). The average BC T-score was 58.2 with a standard deviation of 10.3 (see Table 2).

Among girls, 127 ratings (18.1%) had a TPF T-score indicating concern; and 311 female ratings (44.4%) had a BC T-score indicating concern. Among boys, 196

ratings (27.6%) had a TPF t-score indicating concern. 377 male ratings (53.2%) had a BC T-score indicating concern (see Tables 3 and 4). The differences in TPF T-scores and BC T-scores based on gender were found to be significant ($p < 0.001$). Therefore, boys’ TPF T-scores were significantly lower than girls’, and boys’ BC T-scores were significantly higher than girls’. The only protective factor subscale in which girls were not rated significantly higher than boys was Attachment (AT). For TPF T-scores, Cohen’s $d = 0.21$, indicating a small effect size. For BC T-scores, Cohen’s $d = 0.21$, indicating another small effect size.

Discussion

Adult ratings on the DECA indicates that our Head Start sample differs significantly from the standardization population on both the Total Protective Factors (TPF) and Behavioral Concerns (BC) scales. Compared to previously studied Head Start samples whose prevalence rate for behavior problems was between 16% and 30% (see Qi and Kaiser 2003), our behavioral screening using the DECA indicated that 48.8% of the sample is in need of additional help in the area of behavior. Thus, this rate is noticeably higher than previous research on Head Start samples. This rate is also much higher than the 15.9% rate to be expected by the normal curve in the standardization sample. The findings from this study also show that

Table 2: Descriptive Statistics for Protective Factors and Behavioral Concerns

	Mean	Standard Deviation
Total Protective Factors (TPF)	49.0	10.7
Initiative (IN)	50.0	10.3
Self-Control (SC)	50.9	10.3
Attachment (AT)	49.0	11.8
Behavioral Concerns (BC)	58.2	10.3

Note. All standardized subscales on the DECA have a mean T-Score of 50 with a standard deviation of 10.

Table 3: Prevalence of Low Total Protective Factors and High Behavioral Concerns by Gender

	Girls ^a	Boys ^b
Total Protective Factors (TPF)	127 (18.1%)	196 (27.6%)
Initiative (IN)	101 (14.4%)	171 (24.1%)
Self-Control (SC)	98 (14.0%)	150 (21.1%)
Attachment (AT)	145 (20.7%)	164 (23.1%)
Behavioral Concerns (BC)	311 (44.4%)	377 (53.2%)

^an=701. ^bn=709.

low protective factors further put this sample at risk for later social-emotional challenges. We hypothesize that this risk may be due in part to the poor economic climate of our sample (i.e., high unemployment rate in the studied population, high rate of poverty), which may add extra familial and environmental stressors and conflict. This hypothesized link needs additional examination in future studies.

Study results also indicated that boys enrolled in our Head Start sample had significantly lower TPF T-scores and higher BC T-scores than girls. Generally, young boys are seen as more active than girls. This common expectation often leads to differences in socialization of children. Further research should explore differences between male and female social-emotional development, especially in low-income groups as early intervention and prevention programs should be targeted to those children demonstrating greatest risk for later difficulties.

There are several important limitations worth noting in this research. First of all, the large age range in the sample may have affected results; future studies could focus on certain ages to further explore the social-emotional development of children. Also, the differences between raters could significantly alter the vantage point of child observation. For instance, this study included a much greater number of mother raters than any other type. This could affect the expected gender roles for the child as well as the behavior the child presents to the rater. Future studies can and should use a wider range of raters and examine the differences in feedback.

This project could be extended through the exploration of prevalence rates in a variety of preschool samples to examine the nature of these challenges within samples demonstrating less risk (i.e., community-based day care settings, home-based settings, or children who do not attend preschool). This may help to identify key differences in protective factors and behavioral concerns among young children in different samples. It would also be beneficial to compare children based on race/ethnicity, socioeconomic status, and other social identities to further isolate which subgroups of children are in greatest need of the limited resources found within Head Start programs.

The research presented here benefits the field of early childhood mental health through its analysis of the prevalence of protective factors and behavioral concerns in an at-risk sample. It also investigates possible differences between low-income boys and low-income girls in the classroom. These findings support previous research indicating behavioral risk within Head Start settings is substantial with almost fifty percent of our sample demonstrating risk. In addition, study findings add to the literature by demonstrating that low-levels of protective factors are also an important consideration within an early identification process. This research has implications for educational policy and the successful implementation of future Head Start programs. In addition, the project's utilization of the DECA measurement emphasizes the importance of early-detection and prevention. 🌱

Table 4: Descriptive Statistics for Total Protective Factors and Behavioral Concerns by Gender

	Girls ^a		Boys ^b	
	Mean	Standard Deviation	Mean	Standard Deviation
Total Protective Factors (TPF)	50.2	10.4	47.8	10.8
Initiative (IN)	51.2	9.9	48.7	10.6
Self-Control (SC)	52.1	10.1	49.8	10.5
Attachment (AT)	49.5	11.9	48.5	11.7
Behavioral Concerns (BC)	57.1	10.5	59.4	10.0

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2010 and 2011 National and International Fellowship and Scholarship Recipients

Each year, MSU undergraduates and alumni are awarded highly competitive national and international fellowships and scholarships (NIFS). In this issue of ReCUR, we have profiled recent recipients of these prestigious awards.

Tasneem Pierce *by Mark Kauth*



Tasneem Pierce, a senior majoring in Genomics and Molecular Genetics, was named a 2010 Goldwater Scholar. Scholars were selected from a pool of over one thousand science, engineering, and mathematics students who were nominated based on academic merit by faculty from various colleges and

universities across the country.

Pierce, who is from St. Louis, Missouri, has worked in three labs at MSU, primarily studying evolutionary biology. Currently, under the direction of Drs. Richard Lenski and Charles Ofria, she is studying the effects of mutation rate on evolution using biological and digital organisms. "All of these experiences helped me realize that I wanted to do research full time," says Pierce.

The Goldwater scholarship covers the cost of tuition, fees, books, and room and board. According to Pierce, the scholarship has really helped her expand her research horizons by allowing her to work in a variety of labs and spend more time sitting in on graduate level classes or attending science talks on campus, as well as allowing her to meet many other scientists and learn about their research.

As far as Pierce's future is concerned, she has her heart set on graduate school in pursuit of a PhD in Biology. "I would like to become a professor and help other students the way that my current professors have helped me," explains Pierce. When asked what sort of advice she has for current MSU students, she says to "talk to professors and learn about what opportunities are available, whether it is working in a lab or doing a summer internship. I would not have been in this position today if it weren't for the help of a variety of professors."

Eric Branoff *by Kailey Shelton*



Senior Eric Branoff, recipient of the 2010 Boren Scholarship, credits his Madison College 201 course during his freshman year for his interest in United States foreign relations with the Middle East. The International Relations and Arabic major is currently studying the Arabic language in Amman, Jordan, at

the Qasid Institute. Studying abroad is nothing new for Eric, as he has also studied with Michigan State University in Sana'a, Yemen, and Alexandria, Egypt, during the summers of 2008 and 2009, respectively. It was after his summer study abroad in Yemen that Eric decided to pursue long-term goals in International Relations and Arabic, and he hopes to eventually acquire a career with the federal government. Eric sees the Middle East as having a critical role in U.S. relations, and knows that the demand for Arabic speakers will only increase in the coming years. Furthermore, Eric believes that "the Middle East is a very misunderstood part of the world, and having had the opportunity to spend a significant amount of time abroad I have been able to see the importance and problems of this region firsthand."

After graduation, Eric hopes to obtain an Advanced-Low level proficiency in Arabic, and wants to use the language immediately in his career. He is interested in careers in the State Department, especially with the United States Foreign Service. Eric intends not only to increase his skills in Arabic, but also to learn another critical language such as Persian, Urdu, or Turkish. Long-term, Eric hopes to join the ranks of the Senior Foreign Service of the State Department.

Students interested in applying for these and other awards should contact the NIFS Coordinator, nifs@msu.edu

Melissa Crawford *by Kailey Shelton*



James Madison International Relations junior Melissa Crawford's interest in International Relations began when she participated in Flint Central High School's award-winning Model United Nations team. At her first conference, she represented the country of Turkey, where she is study-

ing abroad this year. The International Relations program in the James Madison College was a popular choice for many of her peers in high school and she felt that she "could not go wrong with choosing International Relations as a major because there is a need for people that understand the global system in order to change its shortcomings and inequalities."

As a Boren Scholar, Melissa is studying the Turkish language in Istanbul and is also working as an intern at the *Hurriyet Daily News and Economic Review*, an English-language newspaper in Istanbul. She finds the country of Turkey fascinating because it is at the center of many different cultures, originating from Europe, to the Middle East, to Asia. In addition, the Turkish economy is growing and developing quickly, and she wants to make an impact now.

Melissa wants to continue working in International Relations, focusing on humanitarian issues and disaster relief. As part of the government service requirement for the Boren Scholarship she intends to work in Turkey upon graduating in 2012. Eventually, she would like to direct humanitarian assistance missions following crises and natural disasters.

Monica VanKlompberg *by Kate Sheka*

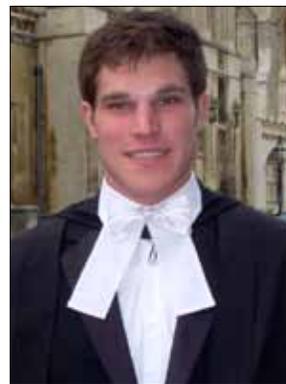


A Zeeland, Michigan, native, Monica VanKlompberg graduated from MSU in 2008. She moved on to the University of California, Davis, where she is currently a third-year PhD student in Animal Biology. VanKlompberg is the recipient of a prestigious National Science Foundation Graduate Research Fellowship (NSF GRF), which recognizes and supports graduate students who excel in the areas of science, technology, engineering, and mathematics.

One aspect that NSF fellowship administrators take into consideration is the extent to which students are involved in extracurricular activities and research. VanKlompberg was a member and officer of the College of Agriculture and Natural Resources (CANR) Student Senate, a member of the 2007 Academic Quadrathlon team, and a member of the MSU Block and Bridle Club. She also studied abroad in Australia and New Zealand as a part of the Food, Environment and Social Systems program. In addition, VanKlompberg worked in a research lab in the Department of Animal Science, which allowed her to pursue her own research projects, and resulted in an undergraduate research grant from the College of Agriculture and Natural Resources. VanKlompberg cited this time as invaluable to her education, saying, "My undergraduate research experience is the reason I am pursuing a PhD."

After graduate school, VanKlompberg plans to continue in the world of academia as a professor in the field of Lactation Biology. Receiving an NSF fellowship has allowed her to focus more fully on this goal by freeing up her schedule for research. "Being only six months into my fellowship term, I don't think I've even realized all of the benefits [of the award] yet," said VanKlompberg. Offering advice to future applicants, VanKlompberg urged, "Don't give up! Many people don't win their first time, but by taking reviewers' comments to heart and making changes you have a better chance the next time around."

Robert Friederichs *by Mark Kauth*



Robert Friederichs, a 2009 graduate of MSU and current graduate student in Materials Science and Metallurgy at Cambridge University, was recently awarded a National Science Foundation Graduate Fellowship. The fellowship provides a three-year annual stipend for covering the cost of tuition and

fees, and a one-time international travel allowance.

Friederichs, a resident of West Branch, Michigan, was President of the MSU chapter of the Biomedical Engineering Society and a member of Tau Beta Pi, the national Engineering honor fraternity. When Friederichs wasn't occupied with school and societies, he played intramural hockey and soccer and had the opportunity to take a semester long jazz piano course.

Friederichs also took part in undergraduate research, working with Professor Melissa Baumann, researching the biocompatibility of diamond-like carbon wear coatings for orthopedic implants such as artificial hips and knees. According to Friederichs, “Undergraduate research was the most valuable extra-curricular activity I had at MSU. Undergraduate research experience directly led me to where I am today,” says Friederichs. “Research forced me to apply the concepts I had learned in my Biological and Materials Science coursework, and as a result this certainly helped me perform better in the classes.” Friederichs’ objective is to work in an industrial research setting. “I want to bring medical technology from the bench to the bedside,” explains Friederichs.

His advice for students? “Get in a lab as soon as possible. The experience is essential for any major fellowship for graduate school.”

Teresa Franklin *by Mark Kauth*



Teresa Franklin, a 2006 MSU graduate of Mechanical Engineering, was recently named a 2010 National Science Foundation Graduate Research Fellowship (NSF GRF). The fellowship provides a three-year annual stipend for covering the cost of tuition and fees, and a one-time international travel

allowance.

Franklin, a Michigan native from Saline, is currently a third year graduate student in Mechanical Engineering at the University of Michigan. During her time at MSU, she was on the Equestrian team and was involved in the Society for Women Engineers, as well as two engineering honor societies: Tau Beta Pi and Pi Tau Sigma.

When she wasn’t busy with all of her extra-curricular activities, she worked with Dr. Patrick Kwon on functional graded materials in ceramics, which have applications in space shuttle tiles or heat exchangers. “I began working in the lab for a summer internship and continued to work on this project as time permitted until I graduated from MSU,” explains Franklin. “I viewed it as my first real engineering job, and it was also my first exposure to research, which shaped many of the decisions I have made since then.” Franklin plans to work in the engineering industry in a research and development role.

Her advice for students interested in graduate school? “It is important to think about it early and use the resources you have available to you to find out about opportunities,” she says. Franklin goes on to explain, “With any fellowship, great letters of recommendations are a must. Try to get to know some of your professors and become involved in research or projects.”

Nada Zhody *By Nada Zhody*



Nada Zohdy is the recipient of a 2010 Boren Scholarship, which provides government funding for international study of languages critical to national security. She is from Rochester Hills, Michigan and will graduate this summer with degrees in International Relations and Arabic, a minor in Economics and a

specialization in Muslim Studies.

Zhody has worked as a Professorial Assistant in the Neuroscience Lab of Dr. Cheryl Sisk, an independent researcher with Dr. Mohammed Ayoob, and a Research Assistant with Dr. Salah Hassan on a project related to Islam and the media. These experiences provided opportunities for publication, interacting with experts in the field, and honing her understanding of what issues she would like to research in graduate school.

The Boren Scholarship has allowed her to develop high proficiency in Arabic through language immersion abroad (first in Egypt, then in Morocco), through intensive coursework, an internship with an Egyptian NGO and direct enrollment at an Egyptian university. In the long-term, she hopes to work as a scholar, policymaker and activist on the issues of development in the Middle East and West-Muslim World relations.

She strongly encourages current students to actively partake in opportunities outside the classroom, including research, volunteering and student organizations, since doing so can lead to profound personal and intellectual growth. She also encourages students not to shy away from the challenge of applying for national and international fellowships. Regardless of the outcome, the process of applying for these awards is tremendously valuable.

Victoria McCoy by Kati McArdle



Victoria McCoy, originally from Pittsburgh, Pennsylvania, graduated from Michigan State University in 2010 with degrees in Mathematics and Geological Sciences. She is currently a doctoral student in the Department of Geology and Geophysics at Yale University. Victoria is a recipient of the National

Science Foundation Graduate Research Fellowship (NSF GRF), which recognizes and supports outstanding graduate students in scientific disciplines who are pursuing research-based masters and doctoral degrees.

Victoria's undergraduate experience consisted of a variety of research and extracurricular pursuits, including the Math Club, Geology Club, and Anime Club. She also participated in the Putnam Exam and the Darwin Day celebration. Within the MSU Geology Department, Victoria took part in three major research projects, all of which were published in periodicals such as *Journal of Arachnology* and *Ichnos*. "With Danita Brandt, I studied scorpion taphonomy, starting as a Professorial Assistant in my freshman year. Also with Danita Brandt, I took part in a research project to name a new ichnospecies (a trace fossil, the first of this particular species to be found in Michigan) of *Arthropycus*, a fossil arthropod trackway, which we named *Arthropycus parallelus*. Finally, with Robert Anstey, I studied the paleobiogeography of *Silurian bryozoans*. These experiences enhanced my academic career by giving me the opportunity to participate in true scientific research as an undergraduate. This process was an effective way for me to decide on a career and in the end I chose a career in research. Also, it was really fun to do real research rather than just take classes."

Victoria is appreciative of the opportunities the award has provided, saying, "The NSF GRF award, by providing money for graduate study, allowed me to attend any graduate school and pursue my research without worrying much about funding. Also, it is a great credential and was probably instrumental in my acceptance into top graduate programs. Lastly, the fellowship application is great practice for writing grants, and forced me to think carefully about, and plan and express clearly, my research and career plans." She has sound advice for those seeking research experience or fellowship. "My general ad-

vice is to take the opportunity as an undergraduate to try many different things, and find out what you really love doing. Then focus on that, not just taking classes, but being involved in the department and getting experience in research. Fellowships in the sciences really want to see a passion and commitment to a field, and a relatively well-formed plan to pursue a graduate degree or career. It is useful to have lots of activities that demonstrate these qualities. If you know ahead of time what fellowships you might want to apply for, it is useful to look at the applications, and make sure you have activities and experiences to fill all the spaces on the form." In the future, Victoria plans to possibly pursue a post-doctoral degree, and later work as a professor at a research-focused university, allowing her to both teach and conduct research.

Shannon Morey by Kailey Shelton



Imlay City, Michigan, native Shannon Morey loves science. As a freshman at Michigan State University, she wasn't sure if she wanted to study chemistry, physics, or biology. However, she discovered that she wanted to become a chemist while enrolled in the Honors General Chemistry course with

Dr. Paul Hunter. She was also a member of the Science Theatre for four years, serving as the Chemistry Director during her sophomore year and as the Director for her junior and senior years. She credits the Science Theatre as an amazing experience. She also worked as a Professorial Assistant during her freshman, junior, and senior years. Shannon is currently studying as a National Science Foundation Research Fellow at Massachusetts Institute of Technology.

Growing up, Shannon was very conscious about environmental issues affecting the Earth. In high school she decided that she wanted to work in a career that would allow her to help the environment. In particular, she is researching the development of new materials in order to revolutionize energy production and storage in the United States. She knows that with the current energy crisis, energy research is one of the best ways to make an impact on society.

At Massachusetts Institute of Technology, Shannon is focusing on the development of new materials in a in academia and spread the interest of energy research.

Nathan Sanders *by Kati McArdle*



Nathan Sanders, a 2010 MSU graduate from Sault Ste. Marie, Michigan, and recipient of a National Science Foundation Graduate Research Program Fellowship (NSF GRF), is currently a graduate student in Harvard University's Astronomy program. The NSF GRF recognizes and supports out-

standing graduate students in scientific disciplines who are pursuing research-based Masters and Doctoral degrees.

Nathan was actively involved with the Science Theatre at Michigan State, a student-run organization that sends undergraduate volunteers to schools and events to perform interactive science demonstrations. One of Nathan's favorite experiments was one in which objects were levitated with a blow dryer to demonstrate the Bernoulli Effect. Nathan volunteered with the group for four years, and was promoted to the Assistant Director position.

Nathan also worked with an impressive array of professors on research in the Physics and Astronomy and Geological Science departments. His research included size distribution of cometary refractory particles, development of the Spartan Infrared Camera, and the periodicity of variable stars. These experiences were invaluable in the honing of his professional research skills. "I was grateful to have the opportunity to get involved with a wide variety of projects in different sub-fields of astronomy to broaden my experience and help me to select a specialization for my future career."

Nathan echoes the sentiments of many of his fellow NIFS winners. "The NSF GRF award is a great resume booster in that it demonstrates your ability to draft a successful research proposal and to sell your work as a scientist. The financial award also lends you great flexibility when you're selecting an adviser in graduate school—your potential adviser does not need to worry about finding money to pay for your tuition or stipend. You should apply to as many fellowships as you can; you have nothing to lose! Nevertheless, I would argue that the most important for science majors is the NSF GRF. It provides most students with the best odds of any of the major fellowships." Besides research experience, Nathan explained how the GRF reviewers also consider the broader impact and out-

reach of the work. "If you haven't demonstrated that you can apply your scholarly work to improve your community by interacting with the public in some way, the committee won't care how good your research resume is. So, go volunteer with Science Theatre!" Nathan plans to work towards a faculty position in Astronomy, and conduct research on the evolution of galaxies after completing his PhD. In addition to maintaining the blog, "Astrobites," that he recently cofounded, Nathan intends to continue teaching at the university level now and in the future.

Linsey Seitz *by Kate Sheka*



A Naperville, Illinois native, Linsey Seitz graduated from MSU in May 2010 before continuing on to graduate school at Stanford University. Now a doctoral student in Chemical Engineering, Seitz is a recipient of a National Science Foundation Graduate Research Fellowship (NSF GRF), which recognizes and supports students who excel in the fields of science, technology, engineering, and mathematics.

Seitz conducted research and was eventually awarded research funding through the Research Training Program for undergraduate students in Biological and Mathematical Sciences. Through these experiences, Seitz found new ways to enhance her classroom experience. "Research provides an entirely different avenue for learning new material than is otherwise provided in courses," said Seitz. In addition to her academic involvement, Seitz was widely involved in extracurricular activities such as the Society of Women Engineers (SWE), of which she was President during her senior year, Tau Beta Pi (a national engineering honor society), and the American Institute of Chemical Engineers. She also traveled to Ireland and France through study abroad programs.

Following graduate school, Seitz hopes to continue in the world of academia or entrepreneurship. Seitz believes that receiving an NSF GRF has helped her on the way to these goals by allowing for exploration of a wide variety of fields outside of her department, as funding allows for easier collaboration between different labs. Offering advice to future NSF GRF candidates, Seitz cites perseverance as key: "I have gotten to where I am now on the basis of believing that I can accomplish anything if I work for it."

Andrew Temme *by Kate Sheka*



After graduating from MSU in May 2010, Andrew Temme knew he would not have to wait long to return to campus. He enrolled in graduate school at MSU as a recipient of a National Science Foundation Graduate Research Fellowship (NSF GRF), which supports outstanding graduate students studying

in the fields of science, technology, engineering, and mathematics. Temme, a Casper, Wyoming, native, is currently pursuing a graduate degree in Electrical Engineering.

During his time as an undergraduate at MSU, Temme pursued a wide range of activities such as Tower Guard, Eta Kappa Nu Electrical Engineering honor society, and amateur radio club. He also participated in study abroad and alternative spring break trips in which he traveled to Texas, Haiti, and New Zealand. In addition, Temme worked in two research labs: the Smart Microsystems Lab (SML) and the Electromagnetics (EM) Research Group. The SML lab allowed him to research artificial muscles and robotic fish while EM allowed him to work with antennas and material parameter measurements. Temme described a complementary relationship between his work and his studies, saying, “The back and forth allowed me to learn material more thoroughly and helped me to stay engaged in class.”

Following graduate school, Temme hopes to continue conducting research with a government lab or a private research and development company. “[The NSF GRF] has advanced my academic and professional development by allowing me to focus on research and classes with few outside distractions or constraints that other funding may have,” said Temme. Passing the torch on to future NSF fellowship recipients, Temme stressed the importance of passion for one’s work. “Without the proper motivation, research is very difficult,” said Temme.

Fatima Foflonker *by Kati McArdle*



Fatima Foflonker, a senior from Grand Blanc, Michigan, is majoring in both Microbiology and Arabic at MSU. She is one of four 2010 Boren Scholars from Michigan State. Recipients of this prestigious award receive funding to study a less commonly taught language in areas abroad that are im-

portant to U.S. interests. With her award, Fatima is funding her year long Arabic study program in Alexandria, Egypt.

While an undergraduate, Fatima worked with Dr. Edward Walker in an insect microbiology laboratory, studying the effects of larval mosquito competition on microbial communities. After working with Dr. Walker on an honors option for a Microbial Ecology course, Fatima secured a position as a lab assistant. Of the experience, Fatima says she was “really glad to be exposed to both the field work and bench work aspects of this project. Any research experience is an asset in the science field.” Fatima was also involved with the MSU Muslim Students’ Association.

Fatima encourages fellow students to apply for awards like the Boren, a scholarship that has allowed for immersion in a focused study of Arabic and for improvement of her grasp of the language at a faster pace than studying in the U.S. would have permitted. “Scholarship committees are always looking for diversity so don’t be afraid to apply. Most of my study abroad program and recipients of the Boren Scholarship are International Relations or Political Science majors who intend to use Arabic directly in their careers. I only recently picked up the Arabic major because the courses I am taking abroad meet the requirements, but I decided to apply mainly because I wanted to master a second language. I would advise other students to highlight their unique backgrounds.” In the future, Fatima is planning to study Microbiology at the graduate level, and also to fulfill the government service requirement stipulated by the Boren Scholarship.

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“Urban Gardening”

Makena Schultz | Environmental Studies and Agriscience



Artist's Statement

I composed the concept for “Urban Gardening” while exploring the streets of Ann Arbor, Michigan. I come from a rural community where farming is prevalent and I am surrounded by vast open spaces. However, in a city like Ann Arbor, it can be difficult to see room for growth beyond the concrete jungle. “Urban Gardening” is supposed to provoke thought about growth; growth within ourselves, growth together as a community, the shaping of ideas and the development of relationships. Where are you today and where could you be tomorrow? I hope that this photograph moves you beyond the confinements of your environment, whether it is walls and buildings, or thoughts and values. I hope you are inspired to take a step back and open yourself to the opportunity of growth. You never know, it could be hiding in the most unlikely of places.

Enduring Policies, Changing Contexts: The Debate on Farm Subsidy Legislation

Genevieve Andress | Interdisciplinary Studies in Social Science-Environmental Policy

Abstract

Farm subsidies have been an enduring aspect of agricultural policy in the United States since their introduction in 1938. Supporters of subsidies often paint subsidy programs as being for the small farmer, even though large farms receive most of the payments. This study uses content analysis to look at the prevalence of appeals to small farms and idealized visions of agriculture in testimony at Congressional hearings on the 1996 and 2002 Farm Bills. These bills had different policy outcomes, and a comparison reveals that the practice of framing support for farm subsidies in terms of helping small farmers was used in both years, although to a greater degree in 2002, when payments were increased.

Introduction

Since the Agriculture Adjustment Act (AAA) of 1938, the federal government has been paying subsidies to the agricultural sector. In 2006, the United States federal government made \$13.4 billion in farm subsidy payments to 1.4 million recipients, 10% of whom received 75% of the payments (Environmental Working Group). A severe depression in agricultural markets in the 1930s led to the emergency measures set forth in the AAA. These measures still structure current subsidy programs (Heinz 1977), despite changes in farming methods and the disappearance of the original conditions that justified farm subsidies (Gardner 1992). The 1996 Farm Bill set up a mechanism to phase out subsidy payments by 2002. However, in 2002, a new Farm Bill passed that abandoned the 1996 goals and reinvigorated the subsidy program as a major facet of U.S. agricultural policy. This was a return to historical trends in agricultural policy that have prevailed since the 1930s, with interest groups garnering continued success through lobbying and support from agribusiness.

My research focuses on the role of language use and interest group politics in the passage of agricultural subsidy legislation. Much of the literature on agricultural subsidies mentions at least in passing the significance of the perceived virtues of farm living and the family farm (Hurtig et al. 2003). A number of researchers directly address the traditional values, often associated with Thomas Jefferson's vision of a U.S. democracy securely founded on a large base of yeoman farmers. Grace Skogstad examines the way these ideals and Jeffersonian justifications form frameworks for legislation creation. Skogstad argues that agricultural exceptionalism (the idea that the agricultural sector has more need of government intervention than other sectors) has had an important influence on U.S. agricultural policy. This exceptionalism rests on two beliefs: farmers have special needs and interests, and agriculture contributes to national welfare and goals (Skogstad 1998). Skogstad examines the 1996 Farm Bill and its apparent shift away from this traditional framework, and how a new framework was used to frame policy. The 1996 bill centered on separating government support from what and how much farmers produced. While subsidy payments continued, the bill called for the eventual phasing out of subsidy payments, indicating a shift in the ideational framework. Policy developments since 1996, however, indicate that the paradigm shift has not endured. This study builds on Skogstad's framework by bringing her arguments to the present and analyzing them in light of the 2002 Farm Bill.

Arguments for and against subsidies and the ways in which issues are discussed can be identified in testimony at Congressional hearings. Agenda-setting literature, such as the work of Baumgartner and Jones (1993), though focused on issues such as nuclear power production, can be applied to agricultural policy. Institutional arrangements that favor economic elites (i.e. agribusiness) often seem entrenched in American politics and indeed enjoy long periods of stability.

Baumgartner and Jones (1993) argue, however, that there is no equilibrium and this stability is punctuated with periods of rapid change. They also argue that the way interest groups are organized can affect agenda-setting, and that one-sided mobilization of bias has historically set the agenda in many policy areas in this nation. Baumgartner and Jones' work can be applied to agricultural policy, although dominant farm interests still seem to control the conversation in Congressional hearings. My research reveals the problematic nature of Congressional hearings for issue redefinition by showing that even in times of agricultural retrenchment¹, like 1996, the debate is still colored by mentions of small-farm America. These themes especially resurge in times of backtracking on reforms, such as in 2002.

Agriculture is not the only policy area in which language is used to evoke certain feeling and meanings beyond actual policy implications. For instance, those advocating a higher minimum wage often paint a picture of the struggling single mother striving to feed her family. In reality, many of those working for minimum wage are teenagers from middle class or affluent families (Wooden, 2010). Teenagers from well-off families, however, much like large corporate farms or agribusiness, do not serve the purpose of garnering popular and political support for policies in a way that small farmers or struggling single mothers do. Another example of this framing is reference to small farmers or small business owners as the victims of the estate tax (often referred to as the "Death Tax"), even though most applications of this tax involve extremely wealthy estates (Andrews 2005; Gale 2001). There are many examples of this type of framing, in which popular images are used to advocate policies that may not serve their actual, popular purpose. Framing is key for both public and legislative perception of policy issues, and in the case of agricultural subsidies, the struggling family farmer is a popular and persistent tool of those attempting to shape perceptions of U.S. agricultural policy.

This study compares the conversation surrounding the 1996 and 2002 Farm Bills using content analysis of Congressional hearings (Gardner 2001; Swenson 2001; Tallman 2001). Despite the fact that subsidies help large corporate farms, are appeals to small farms and traditional American rural values used to garner support for subsidy legislation? Farm Bills have broad-reaching policy impacts, and any government

expenditure on agriculture is in essence a subsidy. However, my research more narrowly focuses on direct payments or loans to farmers, such as exist in commodity programs, referred to here as "subsidies" for the sake of simplicity. I do not intend to forward any more causal explanations for agricultural policies, but rather to contextualize various arguments in the recent debate, and analyze the extent to which they are used in debates as justifications for policy in 1996 and 2002. The findings presented here indicate that in 2002, appeals to traditional small-scale agriculture increased as a renewed push for subsidy payments was mounted by agricultural interests. In 1996, when free-market ideals seemed to have a stronger policy impact, economic language dominated the conversation more so than in 2002. Overall, economic language and discussion formed most of the conversation in both years studied. However, the presence of the family/small farms need government assistance story in both years highlights its persistence in agricultural policy. This research also addresses interest group politics by examining which groups use which arguments. The focus, though, is on the language used and the prevalence of references to supporting agriculture that adheres to Jeffersonian ideals, language at odds with the realities of subsidy payment programs.

History

In order to understand the temporal context of the 1996 and 2002 Farm Bills, a historical discussion of U.S. agriculture and agricultural policy since 1938 is needed. Subsidies have since taken a variety of forms and gone through shifts and reforms², but the basic principle of government assistance to agriculture remains central to farm policy in the U.S. Farming on the other hand, has undergone drastic changes since 1938. The conditions of the Dust Bowl highlighted the beginning of a shift away from traditional farming methods, as well as the dangers of miscalculating nature (Worster 1979). The trends that began in the 1930s have continued until today, fundamentally changing agricultural production in this country, and the Jeffersonian "family farm" archetype so prevalent in the American consciousness differs from the reality of today's agricultural sector.

Differences between agriculture and other sectors of the economy are not just a result of beliefs and entrenched ideas; there are several key factors that contribute to agriculture's unique political and economic

position. The amount of land required to produce agricultural commodities limits the extent to which farmers can organize and consolidate, unlike other industries which have lower space requirements. Though the trend in the U.S. is towards larger farms, there is still a plethora of farmers and firms producing even a single commodity. This prevents real control over pricing and contributes to fluctuation in agricultural markets (Olson 1985). Although this has allowed success in obtaining subsidy payments due to market uncertainty, the development of comprehensive agricultural policies is still out of reach due to the number and diversity of actors and interests. Since World War II, the range and breadth of agricultural interests have increased, and policy goals have shifted to providing some gain for as many participants as possible (Bonnen et al. 1996). Thus, the net is cast too wide for real progress and successful collective action that truly addresses the needs of all farmers. This has allowed for the continuation and expansion of subsidy programs, which are perceived as providing some gain for many farmers, making them continually politically feasible.

William P. Browne (2001) argues that there is a distinct difference between rural issues and farm issues, and assumptions about rural living and the agrarian myth are detrimental to truly addressing policy concerns for Americans who do not live in or near urban areas. Browne's definition and discussion of the agrarian myth and its persistence in the national consciousness, as well as its policy implications inform my research. A basic misunderstanding of rural and farm issues has led to blind support of farm policy and to the ignorance of many broader-based rural issues. Browne also highlights that rural interests face significant challenges in trying to organize at the national level, while farm interests have more success in this venue, since they have narrower interests. Rural issues are often discussed in Congressional hearings as a reason for support of farms through subsidy payments. Browne would argue that this is a misleading argument, since narrow farm interests do not truly capture rural needs. Historical context and Browne's research both demonstrate the relevance of research on the conversation and justification for the 1996 and 2002 Farm Bills.

Methodology

The content analysis conducted in this study aims to

capture the treatment of Jeffersonian issues (those appealing to traditional agriculture and small farms) and economic issues in testimony before committees and subcommittees of the Senate and House of Representatives where the relevant bills were being discussed. Analysis is restricted to the Congress in which the bill was enacted (the 104th Congress for the 1996 Farm Bill and the 107th Congress for the 2002 Farm Bill). Within each Congress, testimony was selected for analysis based on the relevance of the stated hearing topic to the general discussion of the existence and future of subsidy programs. Since the Farm Bills have broad policy goals, many hearings covered topics such as agricultural research, nutrition programs, and resource conservation. My research more narrowly focuses on direct payments or loans to farmers, such as exist in commodity programs. Additionally, many hearings involved technical discussions of certain provisions and mechanisms in the bills, so I excluded these from my sample. Thus, my sample consists of an equal number of testimonies from each year in which the main focus was a discussion of the future direction of commodity programs and direct government assistance to farmers.

In order to capture the language used in testimony, I counted the number of times certain words occurred, including how they were used in conjunction with other words. For instance, to capture Jeffersonian arguments, I looked for instances of the word "small" in context with "farmer," "farm," "operation," or "producer." Similar analysis was carried out with the word "family," "America," "community," and "rural." To balance this language, I looked for instances of "market," "commodity," "trade," or "agribusiness." Though not all variables were used in my statistical analysis, looking for these words and phrases allowed for an overview of the arguments used by each person testifying, as well as a general sense of the proportion of their testimony dedicated to each type of language.

In order to provide a quantitative assessment of the relationship between different issues and arguments for income protection for farmers, I created several indices to capture these arguments in their different forms. The first index, the Jeffersonian Index, aims to capture the degree to which a witness used appeals to traditional depictions of farming to bolster their argument. Thus, this index combines several of the Jeffersonian code words, such as "family," "small," "rural," and "community." The Subsidy Index incorporates income protection/support and the word

“subsidy” to gauge the presence of arguments for income support (read: government subsidies). Including the word subsidy in this index may seem less-than-appropriate, since “subsidy” is often used to refer to the policies of foreign governments, and is rarely used to describe U.S. government policy. However, almost ubiquitously, this negative talk of international subsidies was in conjunction with calls for American government intervention, as evidenced by this quote from 2001:

Our foreign competitors have continued to heavily subsidize and aggressively promote their products in an effort to capture an increasing share of the world market at the expense of U.S. producers... We encourage the Committee to add the proper counter-cyclical safety net needed to protect the lives and livelihoods of America’s agricultural producers (Tallman 2001).

Thus, although Mr. Tallman did not refer to the “counter-cyclical safety net” as a subsidy, his discussion of foreign subsidies was in conjunction with a call for this safety net. The word “subsidy” usually had negative connotations, and was rarely used to talk about government support in the U.S. Thus, I include both “income support/protection” and “subsidy” in my index, to capture the dimensions of the conversation on government payments. I also include analysis without “subsidy” in the index to account for the complexity of this phrase. The third index is an Economic Index which includes “commodity” and “market” to capture economic arguments for programs. However, this index is less useful, since the conversation is so obviously dominated by economic discussion in both years studied, due to the economic nature of the programs. These indices thus serve as an aggregation of different arguments and allow for statistical analysis.

Results

Table 1 displays correlations between the various indices across the entire data set, as well as between years. These correlations indicate that references to idealized small scale agriculture are indeed used in conjunction with a call for income assistance to farmers, as evidenced by the correlation between the Jeffersonian Index and the Subsidy Index. The Economic Index has an even stronger correlation with the Subsidy Index. This is to be expected considering the nature of the policy, if the “farm problem” is indeed

an “economic problem” (Gardner 1992). The highest correlation is seen when “income” alone is correlated with Jeffersonian arguments, which controls for the problematic nature of the word “subsidy” and provides a counter to the argument that economics most strongly play a role in determining subsidy policy.

This argument is strengthened when the data are compared across years. Once again, the strongest correlation exists between the Economic Index and the Subsidy Index, in 1996. However, there is a high correlation when subsidy is taken out of the index, pointing to the more economic nature of the debate in 1996. In 2002, the strongest correlations are between the Jeffersonian arguments and income protection. These correlations are also higher than those between the corresponding variables in 1996. This indicates a surge in Jeffersonian appeals when more payments are sought, and shows that these arguments are used to justify subsidy payments and income support.

Additionally, to identify whether established farm interests invoke Jeffersonian ideals to justify continued

Table 1: Correlations across entire data set, and between years. Higher correlations indicate testimony containing a discussion of subsidies and references to small farm America. The highest correlation, between the Economic Index and Subsidy Index, highlights the economic nature of farm programs. For a two-tailed test of significance: *p<.05, **p<.01

Variables	1996 (n=25)	2002 (n=25)	Total (n=50)
Jeffersonian Index and Subsidy Index	0.50*	0.54**	0.60**
Jeffersonian Index and “Income”	0.55**	0.61**	0.64**
Jeffersonian Index and Economic Index	0.29	0.34	0.47**
Economic Index and Subsidy Index	0.65**	0.54**	0.61**
Economic Index and “Income”	0.60**	0.41*	0.50**

subsidies, the groups were split into farm interests (i.e., producer organizations, broad-based farm alliances) and non-farm interests (i.e., academic, environmental) (See Table 2). The number of farm interests in the sample is significantly higher than non-farm interests, mainly because the sample was selected based on relevance of the hearing topic to commodity programs. However, within the skewed sample, it is evident that farm interests are more likely (than non-farm interests) to use both economic and Jeffersonian arguments to talk about subsidy and income protection. Also, the strongest correlations are between the Jeffersonian Index and “Income” and between the Economic Index and Subsidy Index. This indicates the presence of both types of justifications for subsidy payments in the testimony of those representing farm interest groups.

The different treatment of issues by different groups is demonstrated by comparing the testimonies of Bruce L. Gardner from the University of Maryland, and Leland Swenson of the National Farmers Union. In his February 14, 2001 testimony, Gardner stated, “Policy should not treat commercial agriculture as a sick sector that has to be permanently propped up,

and should not treat commercial farmers as welfare recipients” (Gardner 2001). Gardner uses the negative connotation of “welfare recipient” here, indicating that subsidy recipients are just looking for government handouts. Swenson, on the other hand, stated in his March 14, 2001 testimony, “These programs must ensure a reasonable level of cash flow and producer income in the short term and achieve the goal of providing 100% of the full cost of production in the long run to maintain a sustainable, independent family farm production agriculture structure” (Swenson 2001). The difference between groups in discussing these issues is clearly seen when examining these two quotes: for farm interests, programs are supporting family farms, and for non-farm interests, payments are going to undeserving commercial farms.

In 1996, groups were more likely to converge in their use of arguments than in 2002; thus, data was analyzed by group type and by year (see Table 2). Once again, non-farm groups have a smaller sample size, but factoring them out allows for a more accurate view of farm interests across years. When the correlations for farm interests are compared within years, it is evident that in 1996, there is approximately equal

Table 2: Correlations Across Groups, Between Years. Correlation between Jeffersonian Index and “Income” remains high, meaning this language occurred together in both groups’ testimonies. Economic language correlates with subsidy language only for farm groups; they used “Jeffersonian” and economic language to discuss subsidies. For two-tailed test of significance: *p<.05, **p<.01

Variables	Non-farm Groups, 1996 (n=8)	Non-farm Groups, 2002 (n=4)	Non-farm Groups, Total (n=12)	Farm Groups, 1996 (n=17)	Farm Groups, 2002 (n=21)	Farm Groups, Total (n=38)
Jeffersonian Index and Subsidy Index	0.80*	0.91	0.49	0.69**	0.54**	0.63**
Jeffersonian Index and “Income”	0.84**	0.92	0.55	0.78**	0.59**	0.67**
Jeffersonian Index and Economic Index	0.32	0.31	-0.06	0.32	0.51*	0.54**
Economic Index and Subsidy Index	0.64	0.50	0.57	0.71**	0.53*	0.67**
Economic Index and “Income”	0.66	0.47	0.54	0.63**	0.40	0.57**

use of economic and Jeffersonian frames in conjunction with the Subsidy Index. However, within the 2002 data, Jeffersonian arguments have a stronger correlation with mention of subsidies and income protection than do economic arguments. Additionally, the Economic Index has a stronger correlation with subsidy arguments in 1996 than it does in 2002. However, the data do not quite fall as anticipated, since the Jeffersonian arguments appear to be more strongly correlated with subsidy arguments in 1996, when reform was successful. This could be accounted for by those interests that were fighting reform, like Ross Hansen of the National Association of Wheat Growers, who stated in his June 15, 1995 testimony, “We believe that a strong case has been made that the budget should not be balanced on the back of America’s farmers” (Hansen 1995) Hansen was behind limiting direct payments, but his insistence that the budget should not be “balanced on the back of American farmers” (Hansen 1995) indicates his support for continued government outlays to help farmers. This kind of rhetoric could account for the greater correlation in 1996 between Jeffersonian and subsidy arguments, despite an outcome of reform. Thus, even though this further analysis does not fall neatly in line with the previous analysis, it still indicates the use of Jeffersonian arguments by farm groups.

To further test these correlations, the indices were taken as proportions of the total word count to control for difference in testimony length. When controlling for testimony length, there is still a statistically significant relationship between references to Jeffersonian ideals and discussion of subsidies. This supports the hypothesis that traditional agricultural values are involved in discussion of subsidies, despite being a smaller segment of the total testimony. The strongest correlation is between the Jeffersonian Index and the Subsidy Index for farm groups in 1996, which runs counter to the previous findings. However, average testimony length was shorter in 1996, indicating that talk of traditional, small scale agriculture took up a greater portion of farm groups’ testimonies in 1996, most likely due to opposition of reform.

To further compare uses of Jeffersonian and economic arguments between farm and non-farm groups and between debate on the 1996 and 2002 Farm Bills, paired-samples *t*-tests were conducted (See Table 3). Tests were performed for both the indices themselves and the indices as proportions of total word count.

Table 3: Difference of Means between Farm and Non-Farm Groups, selected variables, including indices as proportion of testimony. Farm groups’ greater mean scores on the Economic Index demonstrate more use of economic language. Non-farm groups used all types of language tested as a significantly greater proportion of their testimony.

	Non-farm Groups	Farm Groups	T- test results, difference of means
Economic Index	20	53.10	p**<0.01
Economic Index, 2002	15.25	80.80	p*<0.05
Subsidy Index, Proportion	0.49	0.23	p**<0.01
Subsidy Index, Proportion, 2002	0.25	0.18	p**<0.01
“Income”, Proportion	0.21	0.13	p**<0.01
“Income”, Proportion, 2002	0.22	0.14	p**<0.01
Jeffersonian Index, Proportion, 2002	0.29	0.06	p**<0.01

The results indicate that non-farm groups used the language tested as a greater proportion of their testimony, especially in 2002. Non-farm groups tended to have shorter testimonies, and often farm groups talked more about technical aspects of programs longer, meaning their Jeffersonian appeals were made at the beginning or end of their testimony. This is also evidenced by farm groups’ significantly higher means on the Economic Index, as they spent much of their testimony discussing the technical, economic provisions of the bills. Though these results do not necessarily point to farm groups making significantly more references to Jeffersonian-type agriculture, they do highlight the divergence of the manner in which groups used arguments, particularly in testimony regarding the 2002 Farm Bill.

Additionally, difference of means tests were conducted to compare between the 1996 Farm Bill and the 2002 Farm Bill. Once again, much higher scores are seen in 2002 on all the indices, especially for farm interest groups. The differences can be accounted for in part because the two bills are different pieces of legislation. However, the fact that the scores of farm interest groups differed so much between years highlights their changing tactics. Yet, the difference in means for the Jeffersonian Index was not statistically significant between the years for farm groups, suggesting the persistence of this language despite the context of different legislation.

Discussion

Subsidy payments have an impact not only on the federal budget, but also on the agricultural and food production landscape of the United States. The continuation of these policies since their inception in the 1930s provides a context for discussions of interest group entrenchment as well as economic policy and framing theory. Clearly, both interest group politics and economic conditions play a role in the formation of farm policy in the U.S., and this study does not forward any new causal explanations. However, the results of this study lend credence to the importance of framing to agricultural policy. Farming has become more like an industry since the 1930s, based on principles of efficiency and economies of scale, though differences between agriculture and other industries still exist due to the space intensity of agriculture (Olson 1985). Federal support to farmers goes virtually unchallenged, suggesting something beyond traditional theories of interest group dynamics and economic conditions used to analyze agricultural policy. Both my qualitative and quantitative analysis found Jeffersonian arguments and appeals prevalent in both 1996 and 2002, as well as coupled with calls for income assistance and subsidies. These arguments were more prevalent in 2002 than in 1996, when reforms were abandoned and subsidy payments were renewed. The conversation about subsidies and farm policy is important to understanding the role of entrenched interests and policy.

Though both the mechanisms of payment and the agricultural economy have changed drastically since the 1930s, the basic principle of supporting farmer income through government payments remains the same. However, increasing evidence suggests that

subsidies have negative consequences in a range of areas, including their impact on small farmers (Hurtig 2003), the environment, and international market effects (Peterson 2000). In the current political landscape, there is potential for a new coalition of various interests for subsidy reform. However, reformers face significant challenges in altering subsidy policy. Being aware of the tools utilized by entrenched interest groups, such as venue control of Congressional hearings and rhetorical appeals to American agricultural values, is important for those seeking to form a new coalition for agricultural reform. Real reform is possible with a broader-based, increasingly mobilized movement against subsidies. But collective action problems and established interests pose serious barriers to reform. By examining language and the context of the debate, those in opposition to subsidies can be aware of tactics used by the farm lobby, and be prepared to change the conversation about subsidies. ♡

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Endnotes

1. Retrenchment: reduction of government expenditures on subsidies
2. For a detailed timeline of agricultural policy, visit <http://www.ers.usda.gov/publications/eib3/eib3.htm> and view table titled “Milestones in U.S. Agricultural Policy”.

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About the Contributors

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Genevieve Andress



Genevieve Andress is the author of “Enduring Policies, Changing Contexts: The Debate on Farm Subsidy Legislation.” Genevieve graduated from MSU’s College of Social Science and the Honors College in 2010 with degrees in Environmental Policy and Political Science, and was a recipient of the MSU Board

of Trustees Award. She is from Tecumseh, Michigan, and currently works in Boston for the Public Interest Network.

Genevieve says that, “My interest in agricultural policy began freshman year in an environmental history course, and expanded throughout my college career. When it came time to write my senior thesis, I chose to look at farm subsidies as a synthesis of my continued interest in agriculture and policy. I wanted to examine not only aspects of the policy, but also to capture in part the impact of broader ideas about agriculture that exist in the American consciousness.”



Tyler Vander Maas

Tyler Vander Maas is the composer of “Quietude Check.” He is an Honors College Senior in the College of Music and is originally from Grand Rapids, Michigan. Tyler says, “I came to MSU as a Jazz Studies major, so I was mainly focusing on playing Trombone and improvising for my first two years at school. When given the opportunity to start writing for groups that I was performing in, I took the opportunity and found that I really enjoyed it. Ever since then I have focused more and more on writing and have been studying both jazz and classical composition.”

Angela Fox



Angela Fox is the author of “After the Bed is Burned: Policy Analysis of Domestic Violence in Ingham County.” Angela graduated from the College of Social Science and the Honors College in 2010 with a degree in Political Science, Prelaw and a specialization in Gender Studies. She is from Cedar

Springs, Michigan and currently a student at University of Illinois College of Law.

Angela says, “I wrote this piece as a thesis for the Honors College Political Science program. The idea came from my work at the local Personal Protection Order office where I volunteered to help women in the area file paper work to get out of violent and abusive situations and protect themselves from their perpetrators. While there, I met women of all ages and backgrounds who had survived horrendous ordeals. It truly changed me as a person and one day I hope to share with other women the courage and strength that those women showed me.”

Leila Chatti



Leila Chatti, of East Lansing, Michigan, is the author of “poem written for you past my bedtime.” She is an Honors College student and will be graduating in Spring 2011 from the Residential College in the Arts and Humanities. The inspiration for her piece came from the fluid, dream-like quality of nighttime

thoughts, as well as the confusion of young, unrequited love. Leila recently completed a collection of poems around the topic of “home” for her honor’s thesis under the tutelage of Anita Skeen.

Allison Szatkiewicz



Allison Szatkiewicz is the creator of “Welcome to an Even Quieter World.” She is an Honors College student and Junior from Traverse City, Michigan. Allison is currently double majoring in Arabic and English Secondary Education, with a minor in Teaching English to Speakers of Other Languages. She

loves to read, write, and paint, and is very excited to have one of her submissions in the ReCUR journal.

Allison said, “The painting, ‘Welcome to an Even Quieter World,’ came from a number of discussions I had over the course of my freshman year of college about the meaning, significance, and potential power of language. When we speak we have the chance to change things, to shape the people and world around us; but we also run the risk of letting our words get out of control and losing focus - and it’s hard to send a message when everything is in chaos. There is a poem hidden in the words of the painting, but a viewer has to work to extract it - just as we must constantly work to maintain and find the meaning in our own expression.”

Makena Schultz



Makena Schultz will be graduating in Summer 2011 with a B.S. in Environmental Studies and Agriscience, a concentration in Community Engagement and Education, and a specialization in Connected Learning. She is a member of the Bailey Scholars Program and the Honors College. Original-

ly from Onsted, Michigan, Makena came to MSU in 2008. Makena states that “Photography has always been a passion of mine, a way to escape the day-to-day stresses. My friends and family have always been very supportive of my ideas and concepts. The photo ‘Urban Gardening’ was taken to inspire cultivation. Just remember that no matter what your environment you always have room to grow yourself, your ideas, your relationships.”

Erika Vivyan



Erika Vivyan, the author of “Protective Factors and Behavioral Concerns in Head Start Children, is a second-year student in the Honors College from Farmington Hills, Michigan. Her primary major is Arts and Humanities, her secondary major is Psychology, and her minor is in Educational Studies. During the 2010-

2011 school year, Erika was a Professorial Assistant to Dr. John Carlson in the School Psychology Program. In regards to her research, Erika said, “This particular project was sparked by my own interest in school psychology and Dr. Carlson’s connection to the Head Start program. I helped to input data and then I wanted to learn how to analyze it and make it into something more meaningful for parents, teachers, and school psychologists to use.”

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