

TUESDAY APRIL 5, 2016; 8:30 am - 9:45 am
“Earth Observations to Facilitate Access to Safe Water in Developing Countries”

Moderator: Sonia Aziz, Associate Professor of Economics, Moravian College

Participants: K.M.S. Aziz, Secretary General, Bangladesh Academy of Science, Fellow, American Association of Advancement of Science
Antarpreet Jutla, Assistant Professor, West Virginia University
Munirul Alam, Senior Scientist of International Center for Diarrheal Disease Research, Bangladesh (ICDDR,B)

K.M.S. Aziz

“Field Observations in Saving Lives: a Retrospective Look”

Abstract: A retrospective look at the deadly disease, Cholera, and its cure, is an eye opener to understand how science benefits mankind in saving lives. Decades ago, Bengal was known as the home of Cholera. Writers have left behind the stories of the decimation of entire populations of Bengali villages. Classical cholera cases can be fatal within hours of passing of the diarrheal fluid. There was no cure. In those days there were no antibiotics and no method of treatment was known, not only for Cholera, but other deadly forms of diarrhea such as Shigellosis. East Bengal of British India is the largest delta in the world and is criss-crossed with rivers, rivulets canals and ponds, all perfect places for the survival and/or hibernation of the Cholera organism, *Vibrio cholerae*. The explosive cholera epidemics were located near flowing rivers. Infected persons defecating on the river banks and on the banks of ponds was the explosive cause of outbreaks. Some areas were more prone to these outbreaks. Looking for a hyper endemic area for starting a centre for cholera research a rural area called Matlab, near Chandpur of the Comilla district was identified where the rural field station of the “Cholera Research Laboratory” was set up in a small barge in the early sixties of the twentieth century. Treatment was in place by intravenous therapy of a cholera saline known as 5:4:1 started saving lives. A cholera cot was devised in Dhaka with a central hole below the defecation place of the patient was collected in a bucket. The amount of fluid was measured and the lost fluid was replaced by the intravenous route, of necessity in hospital or clinic situation. This intravenous solution used to be brought from the US in one litre Abbott bottles containing the 5:4:1 solution. One patient needed 144 litres of fluids to keep him alive. It was simply replacing the lost fluid that kept the patients alive.... Research in CRL Dhaka lead to the development of the oral rehydration solution which lead to the absorption of fluids in the gut. The solution worked only when appropriate amount of Glucose was present in the solution containing Sodium chloride (salt), Potassium and Sodium bicarbonate. This was a revolutionary discovery and took the treatment to the doorsteps rural and urban households. Much needed investment in training and extension work in hospitals, clinics countrywide made its way to the doorsteps of almost every household in the country. In Bangladesh a simple home-made solution was developed, crafted by scientists and made by people at home with simple household ingredients. The death rate was reduced to less than 2% where it could be more than 50%. The British Medical Journal ‘The Lancet’ rated the Oral Rehydration Solution (ORS) as the greatest medical discovery of the twentieth century. Today the use of ORS saves the lives of more than a million under five children in the world each year.

Antarpreet Jutla

“A multi-sensor remote sensing approach to predict cholera”

Abstract: Cholera, an acute infectious water-borne diarrheal disease, continues to be a significant health threat. *Vibrio cholerae*, the causative agent of the disease, can survive in two distinctively different environments: the micro-environment (processes within the bacteria) of the human body and the macro-environment (hydrological, ecological, and climatic processes affecting the bacteria) of aquatic habitats. Because naturally occurring *V. cholerae* can trigger cholera outbreaks and a powerful evidence of new biotypes/serotypes is emerging, it is unlikely that the disease will be eradicated. Significant uncertainty

exists on the role and modalities of macro-environmental processes in creating conditions favorable for an outbreak, primarily because cholera is not characterized based on the regional hydroclimatic forcings. Hence, we still cannot predict precisely the probability, timing, and/or location of an outbreak, all of which are essential if an effective intervention strategy is to be designed. The goal of the proposal is to develop a satellite derived cholera prediction system, linking macro- and micro-environmental processes, for better decision-making strategies to prevent or minimize the impact of an outbreak. Three objectives are to: (A1) identify and synthesize role of macro-environmental processes for epidemic, mixed-mode endemic and endemic cholera; (A2) develop satellite data driven hydroclimatological risk model from conditions favorable for the three types of cholera; and (A3) develop population based cholera outbreak index. Proposed research is directly related to the objectives of the program since it will enhance the decision making of several health organizations; provide tool to justify development of appropriate water and sanitation infrastructure in the susceptible regions and aid in understanding impacts of climate change on occurrence of outbreaks, and therefore development of suitable long-term policies. Starting from ARL 3 milestone, this project is expected to achieve ARL 7 through modeling using earth observations and improving decision-making activities at the International Centre for Diarrhoeal Disease Research, Bangladesh.

Munirul Alam

“Recurrent Diarrhea, Gut Microbiota, and Poor Child Health: Bangladesh Perspective”

Abstract: The diverse microbial commensals include thousands of different species of bacteria belonging to different genera, although a few genera together constitute the major cultivable flora of the gut. The gut microbiota serve for their human host in numerous ways; for examples, by digesting foods, preventing from invading pathogens, and synthesizing various nutrients and vitamins. Although poor child health, recurrent diarrhea-related morbidity and mortality continue to remain longstanding problems for Bangladesh, like in many other developing countries, little is known about the gut microbiota and their role in public health. The gut microbiota in cohorts of healthy and malnourished Bangladeshi children aged 2-5 years, including those suffering from acute watery diarrhea, during recovery, at different time intervals, up to 28 days, were studied using metagenomic tools temporal temperature gradient gel electrophoresis and high-throughput DNA sequencing technologies. While poor microbiota diversity and higher incidence of pathogenic species including proteobacteria in the cohort of malnourished children explain the widespread malnutrition in Bangladesh, data obtained from our systematic metagenomic study provide overwhelming evidence that diarrhea results in loss of gut microbiota, and therapeutic intervention recommended for the hospitalized diarrhea patients, to avert deaths and to reduce hospitalization, selectively allows drug resistant and pathogenic proteobacteria to restore and settle in their gut.

TUESDAY APRIL 5, 2016; 10:15 am - 11:30 am
“Economic Valuation of Water Quality in the Context of Poverty and Inequality”

Moderator: Lowell Perkins, Economics/Philosophy, Junior, Moravian College

Participants: Joshua Toth, Environmental Science, Sophomore, Moravian College
Lowell Perkins, Economics/Philosophy, Junior, Moravian College,
Zachary Molchany, Philosophy, Senior, Moravian College
Shannen Mager, Accounting, Junior, Moravian College
Shane Reider, Environmental Science, Sophomore, Moravian College

Zachary Molchany

“Deepwater Horizon Oil Spill: Contingent Valuation of Preventative Measures”

Abstract: How much are people willing to pay in order avoid a potential future disaster- in this case, an oil spill? How much of this willingness to pay is affected by poverty, even when the disaster in question would affect everyone, especially the most vulnerable- those without a way to mitigate the damage of the disaster due to poverty? This presentation will use contingent valuation to explore people’s willingness to pay for avoiding another disaster like the Deepwater Horizon Oil Spill, also known as the BP Oil Spill. The Deepwater Horizon Oil Spill affected many of the Gulf Coast states, causing problems ranging from economic loss and environmental damage to possible mental health damage from contaminated water sources. It seems intuitive that people would be willing to pay some sort of monetary amount in order to avoid such another future oil spill. It also seems intuitive that people with less income will have a lower willingness to pay than people with a higher income level. The question this presentation aims to answer is whether these intuitions are backed by evidence. Specifically, is willingness to pay really going to be affected by income level, or will the willingness to pay be the same across the socioeconomic lines? In this contingent valuation study, people will be informed about the Deepwater Horizon Oil Spill and its environmental and economic effects, using both statistical/scientific data and visual aids of the oil spill. People will then be asked to imagine themselves as living in one of the southern states affected by the oil spill. From this hypothetical perspective, they will be asked how much they, as an individual, are willing to pay into a government program aimed at preventing another scenario like the Deepwater Horizon Oil Spill. The data will then be collected and analyzed to see how much people, on average, are willing to pay and see how answers differ along different socioeconomic lines. From this willingness to pay, it can be discerned whether people’s willingness to pay based primarily based upon their income or based in some other facet.

Shane Reider

“Flint Michigan Health Effects Brought by Water Crisis”

Abstract: In April 2014, Flint, Michigan switched their water supply from Lake Huron to Flint River in order to buy some time to join a new countywide water treatment system. This new countywide water treatment system would draw water from Lake Huron, but the system was not fully built. The water from Flint River ended up being 19 times more corrosive than that from Lake Huron. This resulted in corrosion of main water lines, which contaminated drinking water with lead. Now, the focus is on how to cure the victims, which as of right now there is no way to treat them. Legionnaires disease has killed 10 people and affected another 77 as of January 15, 2016 in Flint, Michigan since the crises occurred. Between 6,000-12,000 children have been exposed to drinking water that contains high levels of lead. Childhood lead exposure causes reduction in intellectual functioning and IQ, academic performance, an increase in risk of attention deficit disorder, aggression and hyperactivity. Studies have shown that children with increased levels of lead in their blood are more likely as adults to commit crimes, be imprisoned, unemployed, or dependent on government services. It is hypothesized that poverty and inequality is playing a major factor in not allowing residents of Flint to avoid the water crisis.

Shannen Mager

“Flint Michigan: Lead contaminated water and inequality”

Abstract: The focus of this project is specifically on Flint Michigan's lead contamination. This project will look further into the precautions that were taken or should have been taken to avoid this crisis. This project will discuss the process in which water goes through to be tested and ensure it is safe for the environment, safety and consumption. The methods used, leading up to and during this crisis, will be discussed and analyzed in comparison to alternate methods. This project will show how this impacted the environment as a whole and what the chances of this happening in other areas are. The economic side of this crisis will be evaluated as shown by the results of employment, sickness, and the value of the contamination. Aversion costs will be looked into and the value of what it 'costs' individuals to become exposed to this contaminated water and what it costs for this situation to remain under control as a solution is worked towards. This project will also look further into the proceedings and what precautions and procedures are being put into place after this crisis has already began. Key factors that could be an issue for the less privileged, tying this into the idea of inequality will be incorporated throughout this project.

Joshua Toth

“The Relationship of Hydraulic Fracturing and Inequality in Pennsylvania”

Abstract: This project will investigate the methods and procedures of hydraulic fracturing in the central and western parts of Pennsylvania and how it relates to inequality in these regions. Almost half of Pennsylvania sits on a deposit of rock called the Marcellus Shale. The Pennsylvania middle to lower classes tend to live in these areas, making them low income economic regions. These people generally would accept smaller amounts of compensation, unlike more economically stable areas of Pennsylvania. There have been multiple accounts of how hydraulic fracturing has caused environmental damages to the surrounding areas in these regions. A specific question that will be addressed in this work is whether or not hydraulic fracturing companies owe compensation to communities that been negatively impacted by their practices. This question will be answered by compiling data from these areas that have been affected by from hydraulic fracturing. The main research method will use Contingent Valuation, often called CV. CV is used to determine estimated values for ecosystems and environmental services. The collection of data for this project will be through a survey that asks people their willingness to pay for a certain environmental services. The reason it is a “contingent” valuation is because what respondents are willing to pay, depends on a specific situation or scenario dealing with an environmental service. This data gives an idea of what value people put on environmental goods or services such as a water source or a forest. Once all of the data is collected, it will give a consensus on what value people put on their natural resources. In comparing this data to the compensation received by the communities from the fracturing companies to see if they are receiving what they would be willing to pay or what these people “deserve.”

TUESDAY APRIL 5, 2016; 10:15 am - 11:30 am
“Valuation of environmental amenities, inequality, poverty, and race.”

Moderator: Shane Casserly

Participants: Zach Klein, Mathematics, Senior, Moravian College
Jacquelyn Cook, Environmental Economics and Policy, Sophomore, Moravian College
Shane Casserly, Economics and Accounting, Sophomore, Moravian College
Matthew Gandy, Environmental Science, Senior, Moravian College

Jacquelyn Cook

“Zinc Factory Pollution in Palmerton and its Effects on Housing Prices”

Abstract: This project will explore the effects of zinc factory pollution on the town of Palmerton, Pennsylvania via housing prices. Zinc was the main industry for the small town of Palmerton, Pennsylvania beginning in the early 1900's. The company employed more than half of the people in Palmerton, and the company even built a special housing community for their employees. This factory generated jobs and revenue for the town over the following decades. Part of the company is still running today, but the part of the company located in Palmerton is abandoned. The main reason why the zinc company shut down in Palmerton in the 1980's was because of the pollution that resulted from smelting, a process involving heating and melting to extract metal from its ore, that took place within the company. The smelting process released metals, such as lead, cadmium, arsenic, and zinc into the air and water of Palmerton. These metals stripped over 1200 acres of vegetation off of Blue Mountain, and because of the prevention of plant growth, erosion of the contaminated soil impacted the Lehigh River and Aquashicola Creek. In 1982, the area surrounding the New Jersey Zinc Company, which included the barren areas of the Blue Mountain and the town of Palmerton, was declared a Superfund site. This project will analyze the environmental impact of this pollution by looking at housing prices in Palmerton, Pennsylvania. By analyzing data of real estate housing prices, looking at the municipality information of Palmerton, and comparing housing prices in contaminated areas to housing prices in areas that are not as contaminated, this project will attempt to find a relationship between the pollution from the zinc factory and the prices of houses in the Palmerton area. This project will utilize the Hedonic method, which estimates the economic value of an environmental service that affects market prices. By acknowledging that the market price of a good is related to its characteristics, this project will place a value on the environmental hazard, specifically the pollution that occurred as a result of the zinc factory smelting, that affect Palmerton residential properties. This project will explore whether or not houses that are or have been affected by the pollution have overall lower housing prices, making them available mostly to the poorer population of the town. If not able to afford houses of higher prices, these people would be more likely to be subjected to the effects of the pollution emitted by the zinc factory.

Shane Casserly

“Cost Benefit Analysis of Asbestos Exposed Clean-Up Associated with Ground Zero”

Abstract: When the towers fell on September 1st, 2001, New York City was left in disarray with much debris around ground zero and the dust plumes that flowed through the surrounding streets. Amongst all the debris and dust was particles of asbestos which came from the fireproofing on the steel beams within the towers. As well as the asbestos, there were numerous Search and Rescue teams, clean-up crews, and the residents of NYC in the immediate area that were at risk of exposure. The chrysotile asbestos raised concern for the parties involved, air monitoring was done to measure the asbestos fiber-type and size. Two models are used to determine exposure and potency, the US-EPA's 1986 aggregate model holds all asbestos types to be equal, while the newer 2000 Hodgson & Darnton Model has different potency levels based on the particular strain of asbestos. The paper will look at a Cost Benefit Analysis to see if the

social benefit from the EPA's Aggregate Model was worth the cost versus the H&D model where chrysotile asbestos is held at a much lower risk.

Matthew Gandy

"Cost-Benefit Analysis of Mudslides in Brazil"

Abstract: Landslides can be very common in the country of Brazil and it affects the environment in multiple different ways. In January 2010, heavy rainfall caused damage throughout the country. The main areas affected were Rio De Janeiro, Santa Caterina, and San Pablo. Brazil has many mountains and steep sloped areas, which are the main reason the landslides occur. On January 12, 2010, almost a month's worth of rain came down resulting in rivers of mud flowing down the sloped mountains. There were 860 people killed on this day, and over 8000 people left homeless. This is an environmental issue that was caused by humans, and it will continue to happen until prevention methods are put into place. Due to the vast amount of sloped areas, Brazilians eventually started building homes and many buildings on slopes that are around 45 degrees. To build all of these homes it required them to cut down all of the trees in the surrounding areas. When heavy rain fall approaches, there are no longer trees or vegetation to stop the rain from flowing down the mountain. Originally, Brazilians did not have homes built on the sloped areas, but due to the large population increase they were forced to begin building on the land. The soil and trees were completely diminished leaving no more soil to absorb the water and prevent mud sliding. Following the major disaster, Brazil has made a new law that forbids building on sloped areas, including taking down trees in these areas. That is the first method utilized in order to prevent the flooding to take place again. Another prevention method that was put in place following the incident is multiple drainage systems. There were many hillside repair projects put in place by the Brazilian government, which cost around \$4 billion U.S dollars. Following the incident, Brazil was left without homes, potable water, transportation, and also electricity. Mudslides have put Brazil in extreme poverty as every aspect of their economy was damaged. The total cost to repair the highways is around \$140 million U.S dollars. The goal is to compare the different areas and families that were affected by this environmental hazard.

Zach Klein

"Sinkholes and Karst Topography Affecting Towns"

Abstract: Sinkholes are a problem for a majority of people living in Pennsylvania. Pennsylvania has an underground "fault line" that is a source for water piping. By looking at a virtual map of sinkholes in Pennsylvania, it is possible to observe specific hot spots for surface depressions and sinkholes. The beginning stages of sinkholes involve karst features. This is usually where underground drainage systems are located and the dissolution of soluble rocks such as limestone, dolomite, and gypsum create sinkholes. Looking at a specific region in southern Dauphin County which includes Hershey and Palmyra, there are multiple areas where sinkholes and depressions are starting to form. In these areas, housing prices could be lower due to the sinkholes and karst features. Most people living in these areas may choose to pay a premium as an averting measure. When looking at the premiums, there are different prices for different areas. Some are more expensive depending on the area, particularly if you are considered to be above the "fault line". If there is a sinkhole problem that occurs and someone does not have the correct insurance, they could lose part of their house depending where the depressions start. Many types of insurance include specific detailing and require a professional to determine what type of environmental disaster is obstructing their home. If the insurance does not cover that certain type of environmental problem, then one could potentially lose much money and possibly one's home. As an example, Cherry Street in Palmyra, PA currently has an ongoing sinkhole problem and is estimated to be over a million dollars to fix. Looking at houses in this area it is easy to see that many are up for sale and for cheap prices. This sinkhole affects daily travel for many and is very inconvenient for the residents nearby. This study attempts to identify the pricing of housing and insurance premiums for certain individuals living in these karst featured areas.

TUESDAY, APRIL 5, 2015; 1:00-2:15 pm
“Climate change, poverty and inequality and its impact.”

Moderator: Diane Husic, Dean, School of the Natural and Health Sciences
Participants: Diane Husic, Dean, School of the Natural and Health Sciences
Sarabeth Brockley, UN Global Strategy Advisor, Citizen's Climate Lobby
Stephen Stoddard, Environmental Economics and Policy, Senior, Moravian College

Global climate change is already threatening the biodiversity of the natural environment, as well as disrupting political, economic, and social structures worldwide. In the last century, the planet has warmed by approximately 0.75°C and each of the last three decades has been successively warmer than any preceding decade since 1850. There is a long list of projected impacts from climate change, some of which are already being observed, including diminished agricultural yields and food insecurity, shortage of clean drinking water in many parts of the world, forced migrations of people from coastal regions and small island nations, and health impacts. Areas with weak infrastructure – mostly in developing countries – will be the least able to cope with climate change. There is clear evidence that there are disparate impacts of climate change on the poor and on women and children, particularly from areas of the world that have contributed the least to the anthropogenic causes of climate change. As if these projections aren't dire enough, several analyses indicate that climate change and these growing inequities will serve to increase global conflict and national security. This study analyses whether the marginalized individuals of the global communities, specifically in developing nations, are being negatively affected by disruptions from climate change, perpetuating the cycle of poverty and inhibiting sustainable development.

Dr. Diane Husic

“Disparate Impacts of Climate Change, Marginalization and Inequality”

Abstract: To frame the conversation, I will provide a brief overview of climate change and the various forms of inequality associated with this serious global problem -- be in the disparate impacts of climate change on the marginalization of key voices at the international negotiations.

Stephen Stoddard

“Scarcity of Equality in a Changing Climate”

Abstract: How can we begin to address poverty and inequality without first mitigating and adapting to climate change? Those marginalized individuals of the global communities, specifically in developing nations, are negatively affected by disruptions from climate change, perpetuating the cycle of poverty and inhibiting their sustainable development.

Sarabeth Brockley

“Human Rights Aspects In Climate Policy”

Abstract: With my work spread between both the diplomatic and NGO stages, I will speak to the human rights aspects in climate policy agendas and examine if voices of those most impacted from climate change are being heard and translated into the global policy process.

TUESDAY APRIL 5, 2016; 2:30-3:45 pm
“Foodways and the Humanities: Food Production and Consumption in the Lehigh Valley”

Moderator: Sandra Aguilar Rodriquez, Assistant Professor, Department of History, Moravian

Participants: Kelly Allen, Associate Professor of English at Northampton Community College
Breena Holland, Associate Professor in the Department of Political Science and the Environmental Initiative at Lehigh University
Maria McGrath, Associate Professor of Humanities and History at Bucks County Community College
Sandra Aguilar-Rodriguez, Assistant Professor, Department of History, Moravian College

Kelly Allen

“Foodways and the Humanities: Food Production and Consumption in the Lehigh Valley”

Abstract: There is nothing more central to the collective human experience than our relationship with food. Knowing what to eat and why we eat what we do has become one of the most pressing issues people across all demographics face in this country. While much of the public debate about food and food access has focused on scientific information like nutritional content, portion sizes, and GMOs, what is also needed is a conversation that is deeply humanistic. The humanities are uniquely positioned to situate the contemporary society’s relationship to food in the broader context of a human experience. One can read a culture through its food, can read history through food, can untangle the reason for human and social behavior by looking at food and how societies talk about food. This is because the humanities understands and explores human life as the subject of meaning rather than of empirical observation and description. The humanistic understanding of food makes it possible to connect changes in food production and consumption to the realization of human meaning and value. This program’s intellectual focus centers on a critical discourse about food. The discussion lends itself to addressing issues that contribute to the understanding of the relationships between humans and the natural world; deepen public understanding of the meaning of democratic citizenship in the twenty-first century in relationship to our founding principles and values, political history, and current circumstances; assists the country in addressing the challenges and opportunities created by the changing demographics in many American communities; and addresses the various forms of cultural and political polarization that have become so prevalent in contemporary American life and thereby contributes to the building of new forms of community and understanding. Humanistic disciplines, we argue, can take on a leadership role in questioning the human relationship with food.

Breena Holland

“Feeding the Town and the Gown: Localizing Lehigh’s Food Economy”

Abstract: What role can academic institutions play in localizing the food economy and addressing problems of food insecurity in their surrounding communities? Why are such worthy goals so difficult to achieve in practice? This presentation starts from the premise that academic institutions can and should foster food agency among both on- and off-campus citizens. By this I mean that these institutions should enhance people’s capabilities to eat and purchase food that is healthy for people and the environment, and grown in a way that contributes to the local economy and local employment opportunities. Faculty, students, and staff at Lehigh University have taken up these goals over a number of years in projects having varying levels of success. While students have consistently been interested in local-food topics and activities, a variety of institutional barriers on campus reveal the power and reach of an ever-present industrial food system that perpetuates the global transport of food, and agricultural practices that lead to food insecurity and environmental degradation. Social barriers between the on- and off-campus communities challenge efforts to address these latter problems in the local context, highlighting the

complicated ways in which social and economic inequality thwart the development of collective food agency. The presentation will explain how these institutional and social barriers have taken shape at Lehigh University, and how they are being overcome.

Maria McGrath

“American Food Reform: The Challenges of Food Activism”

Abstract: As a cultural and social historian, whose research centers on food history and American countercultures, I was included in the grant “scholars team” to offer critical perspective on food reform. Since the early 1800s, elite reformers have used food and health activism to address their concern with the pace and character of modernization and industrialization—in particular, to express their angst over immigration, spiritual decay, national vitality, masculinity, gender roles, the working class, and racial purity. There are consequences of using food reform as a proxy for other social and political ambitions. One is that food and eaters become entangled in moral discourses, with edibles divided into the good and the bad, and individual citizens, depending on their dietary obedience or disobedience, sorted into the good and the bad. In charge of family sustenance, women’s kitchen and cooking skills have been particularly subject to moral scrutiny. This was true in the advocacy work of early nineteenth century hygienic reformer, Sylvester Graham. Vexed by modernizing America’s ethical flaccidity, Graham, in his 1837 *Treatise on Bread and Breadmaking*, found fault with modern mothers who bought industrially-baked breads. For him, “Graham” bread, kneaded, shaped, and baked in the home, would reconnect women to their children and the home and save America from its new habits of “over-indulgence.” More recently, food revolution leader, Michael Pollan, took second wave feminist, Betty Friedan and her *Feminist Mystique*, to task for teaching “millions of women to regard housework, cooking included, as drudgery, indeed as a form of oppression.” According to Pollan, before Friedan began her feminist crusade, American women felt, “a moral obligation to cook, something they believed to be a paternal responsibility on par with child care.” My presentation will give a short review of different moments in American food reform, pointing out the anti-feminist, racist, classist, and xenophobic sentiments that often undergird food and dietary activism. For me, these historical examples stand as a cautionary tale for contemporary food activists.

Sandra Aguilar-Rodriguez

“My Grandparent’s Kitchen: Food, Identity and History”

Abstract: My presentation will address the intersections between my research on Mexican food and foodways and my participation on Food and Community: The Collective Human Experience. My research explores food discourses in 1940s and 1950s Mexico by looking at individual practices, marketing strategies and state policies. In doing so I seek to understand how and why women took daily food decisions and how the state and the industry influenced them. I bring this experience to Food and Community, along with my knowledge of the Latino community in the Lehigh Valley based on my collaboration in three different projects (health, immigration and the Hispanic Center). As part of Food and Community I will be to organize a series of workshops to explore cooking traditions and eating practices among Latinos in the Lehigh Valley. My Grandparents’ Kitchen will take place in the Hispanic Center of the Lehigh Valley to reflect upon food and cultural identity. During a series of five workshops community members will gather together to explore their “Grandparent’s Kitchen” where they will cook and eat together, while sharing and preserving their unique food identity. They will explore in what ways do the morals and manners associated with food figure into the dynamics of their culture? How is race, class, gender and sexuality policed and regulated through food? The resulting collection of recipes and life stories will be published in a community cookbook which will be provided to regional food banks, libraries, local nonprofits, and housed electronically on the project’s website and social media outlets and those of our partners.

TUESDAY, APRIL 5, 2016; 2:30-3:45 pm
“Arsenic in Drinking Water”

Moderator: Sonia Aziz, Associate Professor of Economics, Moravian College

Participants: Sonia Aziz, Associate Professor of Economics, Moravian College
Todd Watkins, Professor of Economics, College of Business and Economics, Lehigh University
Mike German, Ph.D. candidate environmental engineering, Fullbright Nehru Scholarship

Sonia Aziz

“Valuation of Arsenic in Drinking Water”

Abstract: Widespread arsenic contamination of groundwater in Bangladesh places the health of millions of Bangladeshis in jeopardy. Water sources without high arsenic levels are scarce, affecting peoples’ time available for work and other activities when they have to seek safe water to drink. While children are particularly susceptible to chronic arsenic exposure limited information and heavy constraints on resources may preclude people in developing countries from taking protective actions. Since parents are primary decision makers for children, a model of stochastic decision-making analytically linking parent health and child health is used to frame the valuation of avoiding arsenic exposure using an averting behavior model. The results show that safe drinking water programs do work and that people do take protective actions. The results can help guide public health mitigation policies, and examine whether factors such as child health and time required for remediation have an effect on mitigation measures.

Todd Watkins, Mike German

“From Lab and SocEnt Startup to Impact on 200,000 lives: A sustainable microenterprise model for village-scale arsenic removal from drinking water”

Abstract: Hundreds of millions of people worldwide are at risk of debilitation or death from natural arsenic and fluoride poisoning in their drinking water. Unfortunately, economically sustainable remediation has remained elusive. Village-scale arsenic and fluoride treatment technologies, and an accompanying microenterprise business model, have been developed at Lehigh University and evolved with support from VentureWell. Local communities and local entrepreneurs are now successfully—and self-sustainably—operating and maintaining village-scale arsenic and fluoride systems, benefiting more than 200,000 individuals in India, Nepal, Cambodia, and Bangladesh. Students, faculty, research labs, international partners, and a social business startup have all played important roles. Key economic and groundwater conditions for self-sustainable microenterprise operations have been identified across multiple contexts. Well run local microenterprise operations at scale can generate income significantly above the poverty line, while simultaneously reducing arsenic contamination well below world health standards.

TUESDAY, APRIL 5; 4:15-5:30 pm
“Poverty, Morality and Wealth”

Moderator: Heikki Lempa, Professor, History

Participants: Cynthia Kosso, Provost and Dean of the Faculty, Moravian College
Akbar Keshodkar, Assistant Professor of Anthropology, History and Sociology,
Moravian College
Jason Radine, Associate Professor, Religion

Akbar Keshodkar

“Hope, Despair and Mobility in Neoliberal Zanzibar”

Abstract: Government officials touted neo-liberalism as the antidote for Zanzibaris to overcome poverty in the era of privatization. However, more than 30 years after the collapse of the socialist system, greater numbers of Zanzibaris live in abject poverty. With processes associated with neo-liberalism benefiting only a minority of the population, many Zanzibaris are forced into a growing state of involuntary immobility, living in great despair. This failure of neoliberalism has many seeking new avenues to reengage with economic practices that brought prosperity in the past, trade, in the hope of securing a brighter future. The paper examines how failing economic conditions, political uncertainty, and growing economic hardships under neoliberal policies have revived efforts among Zanzibaris to participate in transnational Indian Ocean trade for envisioning a new future, where hope, at the level of the individual, and prospects for reviving the former glory of the islands at the level of the society, are increasingly associated with places away from Zanzibar and Africa and once again with societies around the Indian Ocean.

Cynthia Kosso

“Poverty and Prosperity in the Middle Ages and Renaissance”

Abstract: In this interdisciplinary and cross-cultural volume edited by Dr. Cynthia Kosso and Dr. Anne Scott, medieval and Early Modern historians and literary scholars unearth, define, and re-define the nature of poverty and prosperity. Through the exploration of texts, religious and spiritual behavior, statistics, class and gender issues, philosophical concepts, and figurative language, the authors investigate poverty and wealth in Middle Ages and Early Modern era. As the introduction to the volume states, “It stands to reason that the multitude of ways in which we represent and have discussed wealth or its absence; the myriad conditions that make us either rich or poor, prosperous or impoverished; and the ways in which we have maintained the better condition or have ameliorated the worse have captured our imaginations and intellect, as they continue to do today.” These essays provide a nuanced examination of the conceptualization and material representation of two terms that help define and shape our very existence today.

Jason Radine

“Wealth, Resentment, and Reward in the Hebrew Bible”

Abstract: The Hebrew Bible (Old Testament) presents a complex variety of views on wealth and poverty. Wealth is sometimes portrayed as a sign of divine favor (Genesis, Proverbs), is regulated in other places (Leviticus, Deuteronomy) and is elsewhere portrayed as a dangerous source of corruption (prophetic literature). This talk will discuss this variety of sometimes contradictory views, but will add the element of resentment as an attitude toward wealth especially in prophetic literature.

TUESDAY, APRIL 5, 2016; 4:15 - 5:30 Payne Gallery
“The Art of Subversion: Tackling Gender Inequality in the Arts”

Moderator: Angela Fraleigh, Artist and Professor, Moravian College

Participants: Jasmine Wahi, Curator and Founder of Project For Empty Space, Co-Owner of Gateway Project Spaces Newark
Wendy Vogel, Arts Writer and Curator
Jacqueline Mabey, Independent curator and co-founder of Art + Feminism.
Angeline Gualdoni, Artist and Co-Founder of Regina Rex
Angela Fraleigh, Artist and Professor

Jasmine Wahi

Jasmine Wahi is a Co-Director of Gateway Project Spaces and the Co-Founder and Director of Project For Empty Space. In addition to these organizations, she also curates exhibitions globally that predominantly deal with issues of cultural identity, female empowerment, and race. Her work has been featured in the Wall Street Journal, The New York Times, Hyperallergic, and The Huffington Post. Ms. Wahi received her undergraduate degree in Art History from New York University, and her MA in Art History from NYU's Institute of Fine Arts.

Jacqueline Mabey

Mabey's work is shaped both by ten years of post-secondary education in art history and cultural studies at Wilfrid Laurier University, McGill University, and The University of British Columbia, and her multifarious professional experience in commercial galleries and curatorial, public programs, archives, and editorial departments. Her practice is rooted in praxis: she endeavors to create exhibitions, situations, and words that draw out the complexities and complicities of digital materiality.

Recent, forthcoming, and ongoing projects include: Art+Feminism, a campaign to improve coverage of women and the arts on Wikipedia; Utopia is No Place, Utopia Is Process, a platform for critical feminist pedagogy at Usdan Gallery, Bennington College; Carnival of Sorts, an exhibition of work by Jennifer Chan, Adrienne Crossman and Lorna Mills at G Gallery, Toronto; The Only Song About Here Is About Leaving; Or, The Sea Is Lawless, a multi-modal digital publication on the trope of nature in Canadian art; and music is my mother, a lecture on fan culture as a model for feminism. She was included in Foreign Policy magazine's list of 100 Leading Global Thinkers of 2014, called a “Badass Woman” by Buzzfeed, and expressed her feelings on cake and Jeff Koons in Artnews.

Wendy Vogel

Wendy Vogel is a writer and curator based in Brooklyn, New York. She received her BA from New York University, an MA from the Center for Curatorial Studies at Bard College, and was a Critical Fellow in the Core Residency Program at the Museum of Fine Arts Houston. Her research interests include legacies of feminist and identity-based practice, as well as the performative and ethical questions around contemporary art production and criticism.

She has worked as an editor for Art in America, Modern Painters, Flash Art International and ...might be good. In addition to contributing to these publications, her writing has appeared in outlets such as Artforum.com, Art Lies, ArtReview, Brooklyn Rail, frieze, and Rhizome.

In collaboration with the artist Peter Halley, Vogel edited a history of the downtown alternative-arts publication index. The volume, titled index A to Z: art, design, fashion, film and music in the indie era, was published by Rizzoli in April 2014.

Vogel has curated or co-curated projects in venues such as the Hessel Museum of Art at Bard College; Künstlerhaus Schloss Balmoral, Bad Ems, Germany; The Kitchen, New York; and Abrons Art Center, New York.

Angeline Gualdoni

Angelina Gualdoni's works on canvas take the patterns, interiors and abstraction as their main focus, locating the rhythm of the everyday sublime in the language of color field painting. Often staining both sides of the canvas, her paintings operate as fluid scrims between still life, color field and pattern and decoration. Gualdoni's paintings have been the subject of solo and group shows nationally and internationally at the Queens Museum, NY, St. Louis Art Museum, MO, the Museum of Contemporary Art, Chicago, IL, The Aldrich Museum, Connecticut, the Museum de Paviljoens, Netherlands, and the Neuberger Museum, Purchase, NY. Her work resides in the Saatchi Collection, as well as the MCA, Chicago, and the Nerman Museum, Kansas City. She has been the beneficiary several grants and fellowships, including Artadia, Pollock-Krasner, NYFA (2008, 2015), and has attended residencies at MacDowell Colony, Skowhegan School of Painting and Sculpture, International Studio and Curatorial Program, and Chateau La Napoule. Gualdoni received her BFA from the Maryland Institute College of Art in Baltimore, her MFA from the University of Illinois in Chicago. She resides and works Brooklyn and is represented by Asya Geisberg Gallery in New York. Gualdoni is one of 11 co-curators at an artist-run exhibition Regina Rex, located in the Lower East Side of Manhattan.

Angela Fraleigh

Angela Fraleigh graduated with an MFA from Yale University, then spent two years in Houston as a Core Artist-in-Residence through the Museum of Fine Arts Houston, TX. Her solo exhibitions include The Vanderbilt Mansion in Hyde Park NY, PPOW Gallery in New York and James Harris Gallery in Seattle. She has been the recipient of several awards and residencies including the Yale University Alice Kimball English Research grant, The Elizabeth Foundation in New York, NY and the Bemis Center for Contemporary Arts in Omaha, NE. She is represented by Inman Gallery in Houston, TX and is currently based in New York, NY and Lehigh Valley, PA, where she is Chair of the Art Department at Moravian College. Fraleigh looks forward to several upcoming exhibitions including a solo project at the Everson Museum of Art in Syracuse, NY in Fall 2016.

WEDNESDAY, APRIL 6, 2016: 10:15-11:30 am

“Healthcare Inequities”

Moderator: Sabrina Terrizzi, Assistant Professor, Moravian College

Participants: Kathryn Stein, Economics and Business, Moravian College ‘16
PJ Mindo, Economics, Moravian College ‘16

Kathryn Stein

“Adolescent Mental Health in America”

Abstract: By examining the environmental, societal, financial, and healthcare disparities among American adolescents, ages 13-18, I offer explanations as to why certain individuals in this age range are prone to mental health disorders. I further aim to provide evidence as to why the aforementioned inequalities can affect the lack of education, awareness, prevention, and treatment of mental disorders among adolescents in America. I will argue that identifying and raising awareness about these disparities among adolescents in different American communities is essential for the treatment of this issue as well as the prevention of mental illness in American adults in these same communities.

Perry T Mindo

“Obamacare, and the Fight Against Income Inequality in America”

Abstract: The widening of the income gap is of much concern and can pose a threat to both the American and global economies. The richest 10% of Americans hold more than 77% of the nation’s total wealth, and the richest .01% of Americans hold over 11% of the nation’s total wealth. Interestingly, these incredibly wealthy individuals are investing their money heavily into politics, and the US government has been scrutinized for the role it has played in the widening of this gap. In this paper we attempt to further analyze a piece of legislation passed during the Obama administration and determine its role in the fight against inequality. The Patient Protection and Affordable Care Act was implemented in March of 2010. Since then many have questioned the magnitude and extent of its effects. In this paper we use various OLS specifications to estimate the effect that the Affordable Care Act of 2010 has had on inequality across states. We use state-level panel data comprised of all 50 states from 2007 – 2013. This constitutes three years before and three years after the implementation of the Affordable Care Act. We currently consider two measures of inequality: the Gini coefficient and the share of income held by the top five percent of income earners. We included a complete set of control variables that have been linked to inequality in previous literature and are also related to the Affordable Care Act, including: race, ethnicity, religion, physical and mental health status, education, crime rates, and political affiliation. Furthermore, we include state fixed effects. Our initial results indicate that the Affordable Care Act decreased the Gini coefficient by 0.002, and decreased the share of income held by the top five percent of income earners the share of income by 0.006. Though seemingly small in magnitude, these effects correspond to decreases of 0.4% and 2.8%, respectively. Both estimated effects are significant at the 1% level. In subsequent analyses, we will use a regression discontinuity design to determine the robustness of our preliminary findings. We will also consider additional measures of inequality in future specifications. If our initial results are robust to these additional specifications, further policy implications can be identified to reduce the level of inequality, which may lead to additional growth opportunities and improved health for the country and its citizens.

WEDNESDAY, APRIL 6, 2016: 4:15-5:30 pm

“A Process for Measuring the Performing Arts Impact on Social Change.”

Moderator: Santo D. Marabella, Professor of Management, Moravian College

Participants: Santo D. Marabella, Professor of Management, Moravian College
Lori Toedter, Professor of Psychology, Moravian College
Brian Welsko, Moravian College, Class of 2014

Santo D. Marabella

“Measuring the Impact of the Performing Arts on Social Change (A Work in Progress)”

Abstract: InFocus has defined poverty as “a lack or deprivation of resources and capabilities as well as choices, security, power and rights” and inequality as “a measure of the relative distribution of the various aspects of poverty in and across populations, societies and nations.” Given this theoretical framework, bullying could be described in terms of both poverty and inequality. A target of bullying is deprived of security, power and rights (poverty) and certain segments of the population – women, disabled, elderly and LGBT folk – are more likely to be deprived of capabilities and have their rights violated (inequality). The problem is pervasive. If it isn’t stopped in the schoolyard, it appears in the break room. The Workplace Bullying Institute reports that about 35% of all U.S. employees are or have been bullied at work. To substantively reduce and even eliminate bullying we will need to invest more attention and resources in understanding the bully, and empathize with the bully. Though not a very attractive proposition – we empathize with victims of bullying, not the bully, yet what we have been doing isn’t enough. We need a new approach. This work attempts to contextualize one such approach: one in which a focal point is building empathy for the bully. We look at whether the performing arts can build empathy for a bully, and examines the crucial role of compassion in diminishing inequality.

Lori Toedter, Brian Welsko

“Assessing level of empathy for bullies”

Abstract (in progress): The purpose of the research is to assess the level of audience empathy and/or compassion for bullies, and explore if an intervention would impact that level of empathy. Because the study is currently in progress, and crucial parts of the research still in the future, sharing the details of the research design would compromise the integrity of the study and impair our ability to collect data as well as the quality of the data we would collect. This panel will discuss the performing arts as a force for social change without revealing full details of the study methodology. The study has been fully approved by the HSIRB, and all results and conclusions will be shared with the In Focus Committee and College community.

WEDNESDAY, APRIL 6, 2016; 4:15 – 5:30 pm

“Mindfulness at Moravian: Visions of Peace in Conference with Zen Buddhist Monk, Claude AnShin Thomas”

Moderator: Michael Mellett, Psychology/Political Science, Senior, Moravian College

Participants: Emily DeSimone, Senior, Moravian College
Precious Christi Noel, Nursing, Sophomore, Moravian College
Dylan Grubb, Sociology, Senior, Moravian College
Michael Mellett, Psychology/Political Science, Senior, Moravian College

Students will briefly report on their work in different classes from a variety of departments and programs including Environmental Studies, Psychology, Political Science, Sociology, Religion and the Peace and Justice Studies Program at Moravian College. Through these various paths students have developed their own "visions of peace" in response to the realities of poverty and inequality within the contexts of Capitalism, Buddhism, war and peacebuilding. In converging these disparate but nonetheless inevitably intertwined disciplines, these students have arrived at a place of concern for the future of peace, justice and wellness in our society. After brief individual presentations of their own work, the panel will invite participants to engage in a dialogue regarding the connections between their visions, and that of our upcoming 9th Peace and Justice Scholar in Residence, Claude AnShin Thomas.

Emily DeSimone

“Visions of peace in context of poverty and inequality”

Precious Christi Noel

“Health Wellness, Disparities, and Inequity”

Dylan Grubb

“Bethlehem, Industrial capitalism and Community”

Michael Mellett

“What is peace? Redefining consciousness, learning: building a just economy - the quest for human wellness.”