

LOOKING AHEAD

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About the Cornell Roosevelt Institute

The Roosevelt Institute at Cornell University is a student-run policy institute that generates, advocates, and lobbies for progressive policy ideas and initiatives in local, university, state, and national government. Members write for our campus policy journals, complete advocacy and education projects in the local community, host research discussions with professors, write policy and political blogs, and organize campus political debates and policy seminars.

The Roosevelt Institute at Cornell University is divided into seven policy centers:

Center for Economic Policy and Development
Center for Foreign Policy and International Studies
Center for Energy and Environmental Policy
Center for Education Policy and Development
Center for Healthcare Policy
Center for Domestic Policy
Center for Science and Technology

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I. Center for Domestic Policy

“The only sure bulwark of continuing liberty is a government strong enough to protect the interests of the people, and a people strong enough and well enough informed to maintain its sovereign control over the government.”

-Franklin D. Roosevelt

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Meet the Center for Domestic Policy

Letter from the Director

Dear Readers,

I am pleased to present the tenth issue of Looking Ahead: The Cornell University Roosevelt Institute for The Center for Domestic Policy. This was my second and final semester as the Domestic Policy Center Director, a position I found tremendously rewarding and incredibly inspiring as I worked with and learned from my analysts. While this was a stressful semester, the analysts approached it with an eager attitude and produced some truly fascinating policy proposals which I hope they will one day be able to see come to fruition. We made tremendous progress as writers and as researchers this semester, and developed a group dynamic that made this last round of blog posts and policy proposals so much fun to read. I wish each of them the absolute best, and I cannot wait to see how far they go.

It was my pleasure working with such a talented group of undergraduates, whose insight into policy is so well reflected in the following proposals. I hope that you, the reader, find each of these works as intellectually stimulating as I did.

Sincerely,

Blake Michael

Government and the College Scholar Program ('16)

Director, Center for Domestic Policy



Eliminating the Electoral College

By Jared Siegel, Majors: Government and History '17, Email: js2638@cornell.edu

The current method for electing U.S. Presidents using the Electoral College system violates the Constitution's Equal Protection Clause and fundamentally alters general election campaign strategy. Congress should vote to dissolve the Electoral College and implement a system of direct elections.

History:

The Twelfth Amendment, ratified in 1804, implemented the modern U.S. Presidential general election process. On Election Day, American voters, even when they vote for a candidate, are actually casting votes for state electors who have pledged to support a certain Presidential candidate. If a state receives a plurality of electoral votes for a particular candidate, all of the state's electoral votes go to that candidate. The number of electors apportioned to each state is equal to the number of Representatives and Senators apportioned to each state. A candidate must receive 270 electoral votes to become President.

The U.S. is founded upon the notion that every citizen should be treated equally in the eyes of the law. This conviction is explicitly outlined in the Constitution's Equal Protection Clause and lives through the Declaration of Independence, Gettysburg Address, Fifteenth, Seventeenth, and Nineteenth Amendments. According to the majority opinion of the 1964 Reynolds v. Sims Supreme Court case on Congressional redistricting, the implications of these documents carry over to the electoral process. It states, "The conception of political equality... can mean only one thing – one person, one vote."

The Electoral College system is completely at odds with the "one person, one vote" notion. There often exists a substantial disparity between the number of popular votes a candidate receives nationwide and the number electoral votes he or she receives. This is predominantly a result of three factors. First, the "winner take all" approach guarantees that a candidate who wins a state, regardless of the margin of victory, gets all of state's electoral votes. According to political scientist George Edwards, "In effect, the system gives the votes of the people who voted against the winner to the winner." Second, because each state receives one electoral vote per Senator, smaller states have a greater number of electorates per capita than larger states, and each vote carries greater weight in determining the outcome of the election. Third, the number of electoral votes a state possesses is tied to population and not the number of people who actually vote. Citizens voting in states with low voter turnout, therefore, influence election results to a greater extent than voters of high turnout states.

The Policy Idea:

Congress should vote to amend the Constitution to repeal the delegate system as outlined in the Twelfth Amendment. An amendment calling for Presidential elections by national direct majority vote should take its place. In the event that no candidate receives a majority of total votes, the Amendment should outline the steps for an electoral runoff between the two candidates receiving the most votes.

Analysis:

Instituting a direct electoral system would reconcile the discrepancy between the victorious candidate and candidate receiving the most popular votes. It would enable the U.S. to realize the "one person, one vote" objective and make each vote count equally. Eliminating the Electoral College and "winner take all" system would prevent votes cast to one candidate from effectively going to the other and would give citizens of different size states with different voter turnout rates equal influence in electing the President.

Key Facts:

- In 2000, nearly 3 million people voted for Al Gore in Florida. President George Bush won the state by only 537 votes, received all of the states electoral votes, and, in effect, earned all Al Gore's 3 million votes.
- In 2004, one California electoral vote corresponded to roughly four times as many citizens as one Wyoming electoral vote, as the Electoral College system favors small states.
- In 2000, Hawaiian voters exercised 2.6 times as much influence in the Presidential election as Minnesotan voters due to lower voter turnout.

Perhaps most importantly, this reform would fundamentally change the character of American elections. Currently, the American elections are predominantly determined by the outcome of the popular vote in approximately ten swing states. Candidates spend the vast majority of their time campaigning and the majority of their funds advertising in these states. Most other states are either predominantly left or right leaning. Because the Electoral College resembles a “winner take all” system, courting votes in these states is essentially a waste a resources if no realistic opportunity to win a majority of votes in the state exists. Citizens of swing states have far greater say in electing the President and influencing Presidential policies than citizens of non-swing states. In effect, Presidents are accountable to voters of swing states and not voters across the entire country.

Proponents of the Electoral College system argue that the Electoral College protects the interests of small-population states, which might otherwise

be ignored. However, this argument assumes that states have unified, coherent interests, which is, of course, not necessarily the case. Citizens of Manchester, New Hampshire have different political, economic, religious, and cultural interests than those of Lebanon, New Hampshire. While New Hampshire is projected to be a contested state, all of its electoral votes will go to one candidate. The interests of this small-population state will not be protected; rather, the views of roughly half of this small state’s voters will be ignored. Ultimately, it is preferable that candidates try to win the hearts and minds of the entire country.

Next Steps:

Proponents of this proposal should take immediate action to implement it. The two frontrunners for the major party nominations, Hillary Clinton and Donald Trump, have expressed explicit, on the record, condemnations of the Electoral College. A movement to disband the Electoral College needs to originate during the candidates’ campaigns to increase popular support and earn a potential mandate for the initiative. The main hurdle to overcome will be whipping the three-fourths supermajority required to amend the Constitution. However, Pew Research polls reveal that the plurality of Americans now identify as Independents and the difference in the number of voting Americans who identify as Democrats versus Republicans is decreasing. At the beginning of the next President’s term, it likely will be difficult to determine which party (if either) will feel the brunt of the change during the subsequent election. As a result, there should be no clear partisan incentive for Congressmen of either party to oppose the initiative.

Talking Points:

- The Constitution’s Equal Protection Clause, enumerated in the Fourteenth Amendment, guarantees “equal protection of the laws” to every U.S. citizen.
- Yet, the current Electoral College system denies Americans equal influence in electing the President.
- Congress should amend the Constitution to dissolve the Electoral College and institute a general election by direct vote system.
- This will enable each vote to carry equal weight in general elections and guarantee election winners are also recipients of the majority of the popular vote.



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REIMAGINE THE RULES

Jailing the Innocent: Ending Migrant Family Detention

By: Henry Graney, Major: ILR '19, Email: hg382@cornell.edu

To those fleeing the violence of their home countries in Central America and attempting to find refuge in our country, the U.S. owes it those seeking a better life safe, expedited, and fair asylum application review without the abusive practice of family detention.

History:

A surge in violence in Central America, specifically Mexico and the countries of the Northern Triangle of Central America (NTCA: El Salvador, Honduras, Guatemala), has escalated the amount of individuals entering the U.S. southern border. To deal with the influx of those fleeing such violence, the Obama Administration has expanded family detention, the practice of detaining families, including women and children, who are applying for asylum status in the United States.¹

These detention centers are often run by for-profit prison corporations such as the GEO group and Corrections Corporation of America (CCA) and constitute a major investment of American tax revenue. According to a spokesperson for Immigrations and Customs Enforcement (ICE), the agency has paid CCA and GEO a total of about \$362 million to open and operate two detention centers.²

According to a report by the U.S. Conference of Catholic Bishops and the Center for Migration Studies, immigration courts receive \$300 million from Congress each year, one-sixtieth of what ICE and Customs and Border Protection receive. Perhaps because of that, nearly 442,000 cases were pending for immigration judges revision, with an average case waiting period set at 599 days and with some cases exceeding two year delays.³

In these detention centers, reports of child abuse, sexual assault, and deplorable living conditions have been issued against multiple centers and their facilitators, such as the CAA.⁴ Abuse and dehumanization suffered by those seeking a better life in the United States have prompted multiple suicides, several deaths, and a series of hunger strikes and protests.

The Policy Idea:

The federal government should end the practice of family detention and divert funds from for-profit prison corporations toward community-oriented ATD models, and access to legal counsel as well as safe and affordable housing. The federal government should end this practice by recognizing the ruling of Flores vs. Johnson, which states that this practice of detainment is illegal. They should also recognize the detrimental effects that detainment has on families both mentally and physically. To correct this injustice, the federal budget should divert more funds toward processing asylum applications and immigrants in a safe and expedited process.

Analysis:

The way that we are dealing with the current south border refugee crisis is inhuman, inefficient, and expensive. By ending family detention, diverting funds, and increasing access to legal counsel, suspected immigration offenders and those applying for asylum in the United States would be treated more humanely, and would be given faster and more equitable results considering their situations.

Family detention has been a stain on the perception of America's response to immigrants and those seeking asylum. The human rights violations at detention centers run by for-profit prison corporations must no longer be tolerated if we are to consider ourselves a fair and just society. According to the US Citizen and Immigration

Key Facts:

- The corruption of this situation and the profits made of it are deplorable: CCA and GEO spent about millions from 2008 to 2014 lobbying the federal government to pay for detention centers and to prevent immigration reform that would hurt their businesses. In 2009, the companies lobbied Congress to instate a bed quota, which required the government to maintain at least 34,000 detention beds in immigrant detention centers. After the quota was put in place, CCA and GEO's profits had doubled by 2013.⁶
- The countries of the NTCA are ranked among the highest in female-targeted homicide: El Salvador-1st, Guatemala-3rd, Honduras-7th. These countries also have some of the highest homicide rates in the world; Honduras-90.4/100,000 (highest in the world), El Salvador-82.2/100,000, Guatemala-39.9/100,000 (global average: 6.2/100,000)⁷
- The US immigration detention system has grown immensely in the last two decades: the number of persons detained annually increased from roughly 85,000 persons in 1995 to 440,557 in 2013⁸
- The centers work under a "No Bond or High Bond Policy" where bonds can be set at exorbitantly high amounts, upwards of \$7,000, or not at all.⁹

Services, of those applying for asylum, 88% were able to prove credible fear in natural nation.¹⁰ The ability for so many to prove credible fear of persecution, sexual violence, marital abuse, or gang threats, proves the seriousness of the situation and the real peril these families are in.

ATD's, especially community-oriented models, are incredibly successful at ensuring individuals appear at their immigration hearings. In June 2013, Lutheran Immigration and Refugee Services (LIRS) screened vulnerable immigrants for entrance into their Community Support Initiative. At the Initiative's end, there was a 95.6% appearance rate at court proceedings.¹¹

Access to legal counsel is perhaps the most important way to expedite the process of asylum application and immigration. Simply providing counsel as to the legal proceedings, rules, and the rights granted to those appealing makes the courts more efficient. Also those who feel like they have been given due process are much more likely to be accepting of the final determination and comply with removal orders.¹²

Talking Points:

- Immigrant detainees are not criminals, and are locked up to ensure they are present in immigration court.
- "Detention is a human rights violation and no person — especially families with children — deserves to be put in a cage for seeking a better life in the United States."
–Texas United Families' letter to President Obama⁵
- Seeking asylum is a lawfully protected act. Forced return – without the opportunity to have a refugee claim fully adjudicated on the merits – runs counter to the laws meant to protect refugees.
- The increase of immigrants fleeing the gang violence and persecution of countries like Mexico and the NTCA constitutes one of the largest refugee crises that America has faced; the way that we treat those fleeing this violence, especially the ever-increasingly vulnerable women and children refugees is a reflection on our country and our shared values

Next Steps:

Opposition to the practice of family detention is growing as increasing amounts of politicians realize the immorality and inefficiency of such a system. In July of 2015, 178 Democratic members of Congress signed a letter demanding the Department of Homeland Security end its family detention policy, arguing that it was "detrimental to mothers and children and is not reflective of our Nation's values."¹³

There is much precedent for closing these centers, easing access to legal counsel, and diverting funding to ATD. The Department of Homeland Security must cease this practice and must stop bankrolling the corporations that perpetuate the human rights abuse and unchecked profit. In essence, stop migrant family detention, and look to other well-established means to deal with the current refugee crisis on our Southern border.

Endnotes:

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- 9) "Feds Start 'no Bond' Policy on Immigrants at Karnes." San Antonio Express-News. San Antonio Express News, 2014. Web. 02 May 2016.
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Equality Under the Law: Applying Retroactivity to the Fair Sentencing Act

By Kwame Newton, Major: Government and American Studies '17, Email: ksn22@cornell.edu

The Crack-to-Powder Cocaine sentencing disparity is an aspect of the current sentencing structure that disproportionately affects African Americans; by having Congress reduce the sentencing ratio retroactively for mandatory minimum offenses as per the Fair Sentencing Act of 2010, tens of thousands of inmates convicted before the bill's passage can receive a consistent application of the law.

History:

The Fair Sentencing Act (FSA) of 2010 was a bipartisan piece of legislation that was enacted in order to change federal guidelines regarding the sentencing for crack cocaine related offenses. This bill, which reduced the disparity between crack cocaine and powder cocaine offenses from 100:1 to 18:1, was primarily aimed at resolving the sentencing disparities that affect African Americans imprisoned for crack cocaine offenses (a demographic that represented a staggering 83% of convicted crack cocaine traffickers).¹

The reduction of the ratio is also in large part due to an understanding of the fact that crack and powder cocaine are nearly chemically identical,² contrary to popular belief in the 1980s. Many believe that the reason for such a significant statistical difference lies in the passage of bills such as the Anti-Drug Abuse Act of 1986, a bill that introduced mandatory minimum sentences at the original 100:1 crack-to-powder cocaine sentencing ratio.

While the aforementioned 100:1 ratio was initially based on the fears of crack cocaine use devastating inner-city neighborhoods, many of which were predominantly African American, the Anti-Drug Abuse Act, in practice, led to the same racially disproportionate outcomes that many of its sponsors desperately hoped to avoid. The FSA's introduction of the new 18:1 ratio has helped alleviate this sentencing disparity to a degree going forward, but the new standard does not currently apply to those who were given mandatory minimum sentences in the years before the FSA became law and are still serving overly-long sentences in prison.

The Policy Idea:

Several bipartisan proposals, such as the Sentencing Reform Act or the Smarter Sentencing Act, included sections which sought full application of the FSA to resolve the discrepancy between pre-2010 and post-2010 mandatory minimums, and this policy would largely serve this purpose. The overall solution to this issue would be fairly simple to implement if the opportunity to pass this policy arises, as federal judges would merely be given the opportunity to revise sentences for the non-violent offenders who could not have their out-dated sentences reduced due to technicalities after the FSA's original passage in 2010.

Analysis:

Crack cocaine reform as seen in the Sentencing Reform Act or the Smarter Sentencing Act will mainly affect the African American male populations of prisons that are incarcerated under pre-2010 mandatory minimums. According to the advocacy group Families Against Mandatory Minimums (FAMM), roughly 8,800 prisoners will be eligible to benefit from sentence reductions in line with the FSA.³ FAMM further states that the Justice Department (DoJ) also stands to save a considerable \$24 billion over the next 20 years if this reform is enacted, funds that would have been used to house a larger pool of prisoners and hire around 7,000 guards that would manage them.⁴

The FSA, in its current form, will continue to provide fairer sentences for over 3,000 offenders per year and has allowed judges to grant over 7,700 reduced sentences retroactively, but those who were convicted under the pre-2010 crack cocaine mandatory minimums, again, are still barred from receiving revised sentences in line with modern standards. In order to maintain consistency within our justice system and in our new understand-

Key Facts:

- Of the more than 7,700 that were granted sentence reductions through the FSA since 2014, 85.7% were black.⁶
- The average sentence reduction after the application of the FSA was 30 months less than the original sentence.⁷
- 1,771 offenders have been denied sentence reductions due to the difficulties imposed by the FSA's mandatory minimums restrictions.⁸

ing of crack cocaine, the new FSA mandatory minimums should retroactively apply to prisoners whose sentences have been defined by outdated law.

Next Steps:

Both the House and Senate versions of the Sentencing Reform Act of 2015 and the Smarter Sentencing Act have provisions that would extend FSA mandatory minimums retroactively, provided the offender hasn't previously been granted a sentence reduction or imposition in line with FSA guidelines.⁵ These bills have bipartisan support, and versions of each were introduced to both the senate and the house last year, but none of the four current versions have been passed as of yet. In the case of a renewed public interest in justice reform, as is being seen through the widespread discourse over mass incarceration and police brutality, a policy such as this would have very favorable odds in terms of passage.

Talking Points:

- The original Crack-to-Powder cocaine sentencing disparity was 100:1
- 83% of convicted crack cocaine traffickers are African American
- Reform could save the Department of Justice \$24 billion over the next 20 years
- 8,800 prisoners will be eligible to benefit from sentence reductions

Endnotes:

- 1) United States Sentencing Commission, Crack Cocaine Trafficking Offenses, 2013, http://www.ussc.gov/sites/default/files/pdf/research-and-publications/quick-facts/Quick_Facts_Crack_Cocaine.pdf. Accessed 4/19/2016.
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- 6) U.S. Sentencing Commission, Final Crack Retroactivity Data Report Fair Sentencing Act, 2014, http://www.ussc.gov/sites/default/files/pdf/research-and-publications/retroactivity-analyses/fair-sentencing-act/Final_USSC_Crack_Retro_Data_Report_FSA.pdf. Accessed 4/19/2016.
- 7) Ibid.
- 8) Ibid.



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REIMAGINE THE RULES

Reversing Ex-Felon Voter Disenfranchisement: Rehabilitation and Confronting Racism

By Lydia Holley, Major: Government and Mathematics , Email:ljh239@cornell.edu

Enfranchisement of ex-felon voters by the US Senate on a national level will allow for their re-integration into society as full citizens, and will push back against racist roots of the policy, giving a voice back to communities of color in the process.

History:

A citizen's right to vote provides a cornerstone of democracy for the United States. If we are to claim that ex-felons living in the United States are full citizens, then by removing their right to vote, we are altering the value and legitimacy of our representative democracy.

English colonists brought the concept of "civil death" – a set of criminal penalties originating in Athens, Ancient Rome, and Medieval Europe – to North America, leading to the institutionalization of felon voter disenfranchisement.^{1,2} Currently, federalism has a large impact on the severity involved in felon voting rights, with some states maintaining a "lifetime ban on voting for felons," while others have no restrictions on felon voting rights whatsoever.^{3,4} This unusual severity is not the only cause for concern: as a result of varying laws across and within states, we encounter "the exclusion of legal voters and the inclusion of illegal voters".⁵

If we intend to place ex-felons back into society, we should be concerned about rehabilitation. Re-

voking the right to vote from ex-felons sends the message that "ex-offenders are beyond redemption".⁶ Further, state bans on ex-felon voting are rooted in racist policies, and disproportionately impact communities of color, potentially altering senate and presidential elections.^{3,7} It has also been estimated that 2.6 million Americans have permanently lost their voting rights.⁹

Key Facts:

- In Florida and Kentucky, more than 1 in 5 black adults is disenfranchised.⁵
- Since the 1960s, the number of Americans convicted of crimes has increased over 600%.⁹
- The Sentencing Project estimated that 2.6 million Americans have permanently lost their voting rights.⁹

The Policy Idea:

Enfranchisement of ex-felon voters by the US Senate on a national level will allow for their re-integration into society as full citizens, and will push back against racist roots of the policy, giving a voice back to communities of color in the process.

Analysis:

Passing a national policy placing a ceiling on the harshness of felon voter disenfranchisement laws – restoring voting rights immediately after release from prison, probation, or parole – will ensure that ex-felons attempting to re-integrate into society can do so without struggling with identity and the extent to which they can return fully as citizens. Additionally, a national policy ensuring that information about how to re-register to vote goes to ex-felons within a month of their leaving prison will lead to fewer excluded legal voters, who are disproportionately communities of color.

Once such a policy is passed, the influence of federalism on determining felon voting rights will lessen. Currently, some states have permanent disenfranchisement for all people with felony convictions, some have this policy for only some criminal convictions, and others get into technicalities surrounding whether voting rights are restored immediately after release or after a delay.⁸ This causes confusion among voters as well as workers implementing the policy.⁵ This policy would eliminate this confusion by actively giving information to both groups.

Of course, some confusion would remain due to the flexibility the policy gives to states that wish to implement more lenient policies, such as restoring voting rights immediately after release versus post-probation or parole; however, distribution of information to ex-felons once they reach the point at which their right to vote is restored will help to mitigate the number of disenfranchised legal voters. This forced distribution of information will also ensure the education of workers implementing the policy, which should help to lessen the number of illegally voting felons.

Regarding impacts on communities of color – especially black communities – this policy should allow for a restoration of the voice of such communities. In regards to the number of black citizens banned from voting: “in three states – Florida, Kentucky, and Virginia – more than one in five black adults is disenfranchised”.⁵ This is old data now, considering Virginia’s newly passed law; however, for Florida and Kentucky, black adults are disproportionately losing their voices permanently.

Next Steps:

In 2002, the United States Senate voted down an amendment granting felons the right to vote in federal elections. However, this should not dissuade a second attempt, especially considering the gradually changing atmosphere with respect to such laws – Virginia, one of four of the most punitive states, just recently passed a law granting ex-felons the right to vote, and as for the rest of the states, the majority have policies under or at the given punitive ceiling. Additionally, representation of black Americans involved in government has increased over the course of Barack Obama’s presidency, which may point to a more accepting atmosphere when taking this particular policy into consideration, given its racist roots and disproportionate impact on black communities.

Finally, distribution of information to current ex-felons should occur immediately after the passing of this policy, as well as a training of workers who are involved in the distribution of information to ex-felons. This way, we will have informed workers, without which we would have ex-felons uninformed of their right to vote.

Talking Points:

- Variation of felon voting rights across and within state boundaries, without a clear method of information distribution regarding these rights, causes disenfranchisement of legal voters as well as illegal voting.⁵
- Permanent felon disenfranchisement hinders identity transformation and rehabilitation, and restricts re-integration back into society. That is, the permanent robbing of ex-felon’s voting rights portrays the idea that a second chance is not truly deserved.⁶
- Severe restrictions on felon voting rights have been shown to potentially lead to different outcomes in terms of Senate races.⁹

Endnotes:

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REIMAGINE THE RULES

Meet the Domestic Policy Center



Jared Siegel

Jared is a junior in the College of Arts and Science. He is a Government and History double major with a minor in Business. Last summer he interned in Senator Charles E. Schumer's legislative office in Washington D.C.



Henry Graney

Henry is currently a freshman in the ILR School pursuing an ILR degree. The focus of most of his arguments center around campaign finance reform, criminal justice reform, and gun control. This is his first year at the Roosevelt Institute as an analyst in the Center for Domestic Policy.



Kwame Newton

Kwame is a junior in Arts and Sciences, double majoring in Government and American Studies with a minor in Law and Society. He is a member of the Cornell Democrats, Philanthropy Chair of Phi Alpha Delta, and President of the Cornell International Affairs Review. From Winter Haven, Florida, his interests include archery, travelling, and painting.



Lydia Holley

Lydia is currently a Sophomore in the College of Arts & Sciences working toward majors in Government and Mathematics, as well as a minor in Africana Studies. She is a member of the Domestic Policy Center, with particular interests in racial & ethnic inequality as well as poverty. She is also a member of the club Justice Rising, which works toward furthering economic development in war-torn regions of the world, as well as the Robertson Infant Cognition Lab. In her free time, she enjoys jogging, music, and riding her horse, Rica.

Not pictured: Alex Chakrin

II. Center for Economic Policy

Director: Jack Polizzi '18

Analysts

Mason Miller '17

Jill Sternthal '18

Tony Zhou '19

David Howe '18

Artemis Tapliga '18

Letter from the Policy Director

“Enhancing Trade through the Trans-Pacific Partnership Agreement”

Tony Zhou '18

Both the United States Senate and House of Representatives should pass the Trans Pacific Partnership Agreement in order to decrease protectionism and encourage trade.

“The Cost of Bad Business: Preventing Non-Disparagement Clauses from Distorting the Market”

Jill Sternthal '18

Unbeknownst to some customers, many contracts include in the fine print a non-disparagement clause, which prevents consumers from publishing negative reviews of the product or service after purchase. Hindering full information about quality in the marketplace violates an important assumption of economic theory and creates marketplace inefficiencies. To ensure symmetric information and prevent market failure, Congress should pass the currently debated Consumer Review Freedom Act that bans these non-disparagement clauses.

“Granting Local Wage Authority in New York State”

Mason Miller '17

To support wages, reduce poverty, and provide a boost to local economies, states around the country that haven't already should grant their localities the ability to set their own minimum wages.

“Making Way for Mental Health Education and Removing the Nation's Lost Earnings”

David Howe '18

Children's mental health acts as an early determinant for their future. The nation has made little effort in addressing mental health as a whole and as a result, the economy is suffering dramatically. Schools must develop mental health programs that will enhance productivity and boost the economy.

“Improving Romania's Economic Accessibility through Transportation Sector Reform”

Artemis Tapliga '18

Romania's economy cannot expect to thrive without transportation infrastructure to connect urban areas to rural areas to the rest of Europe. This policy aims to privatize enterprises and utilize European Union funds to upgrade the national railway and motorway networks.

Meet the Center for Economic Policy

Letter from the Director

Dear Readers,

I am excited to present to you the tenth issue of *Looking Ahead: The Cornell Roosevelt Institute Policy Journal* by the Center for Economic Policy and Development. This journal contains the proposals of five analysts, each of whom spent many hours doing in-depth research and careful inventing solutions to the problems plaguing the economies of our localities and states, and the nation and world as a whole today.

Some students explored national issues, such as the ratification of the Trans-Pacific Partnership, or removing non-disparagement clauses from contracts nationwide, while others explored initiatives of a more disperse and decentralized nature, such as promoting local wage authority or reforming how schools address mental health issues. One analyst even explored an economic issue in her home country of Romania. Each analyst provided a concrete and detailed plan of implementation, as well as a list of potential public resources to implement his or her policy vision.

The amalgam of policy proposals provides an interesting insight into the most critical issues in the US and in some cases global economy, and innovative solutions to those problems.

Sincerely,

Jack Polizzi
Policy Analysis and Management (HumEc '18)
Director, Center for Economic Policy



Enhancing Trade through the Trans-Pacific Partnership Agreement

By: Tony Zhou, Major: Economics and Philosophy '19, Email: ttz3@cornell.edu

Both the United States Senate and House of Representatives should pass the Trans Pacific Partnership Agreement in order to decrease protectionism and encourage trade.

Background:

The Trans-Pacific Partnership (TPP) Agreement is the product of a longstanding negotiation between 12 major economic powers throughout the Pacific Rim (Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam).¹ Not only does the TPP encompass the immense magnitude of 40 percent of the world's GDP and 26 percent of the world's trade, but also brings specific benefits to United States trade relations, as it accounts for 1.5 trillion dollars worth of trade in goods in 2012 and 242 billion dollars worth of services in 2011 with some of the U.S.' biggest and fastest-growing commercial partners.² While it serves the purpose of reinforcing previous agreements for improved trade relations among its participants, it also holds the additional stipulations of eliminating tariffs on a host of goods and services, of either tearing down or harmonizing non-tariff barriers and regulations, and of ultimately promoting an effort toward international free trade. Lastly, in comparison with broad and all-encompassing trade institutions such as the World Trade Organization (WTO) or the United Nations Economic and Social Council (ECOSOC), the Trans-Pacific Partnership seeks to enhance the regionalism of the Pacific Rim as a check against Chinese economic hegemony and currency manipulation.

Although the TPP has been signed in an international accord, it has yet to be ratified by either the Senate or House of Representatives in the United States Congress. While some amount of opposition can be attributed to a variety of political meandering in the face of President Barack Obama's current status as a "lame-duck" office holder, there still exists a significant amount of debate over the economic premises behind the agreement. Resolving the economic debate will ultimately serve as the first step for the passage of the TPP.

Key Facts:

- 1. The Trans-Pacific Partnership (TPP) is a trade agreement including 12 Pacific Rim countries.
- 2. Members of the TPP encompass 40 percent of the world's GDP and 26 percent of the world's trade.
- 3. Although all 12 countries have signed the TPP, it has yet to be ratified by United States Congress

Policy Idea:

This policy proposal takes the stance that both houses of the United States Congress (the Senate and the House of Representatives) immediately ratify the Trans-Pacific Partnership Agreement. Furthermore, the United States Federal Government should subsequently ensure proper implementation of all clauses of the TPP in the corresponding sections of its international trade policy. Lastly, it should lead and engage in the overall initiative toward free trade with participant members of the agreement.

Analysis:

The economic debate over the TPP ultimately boils down to two substantive issues: First, one must consider its effects on the overall status quo of the international economy. Second, one must also consider its effects on the United States domestic economy, particularly in the transition away from a previous policy of protectionism. This policy analysis finds the TPP to be beneficial in both regards.

First, regarding the status quo of the international economy, regional trade agreements hold a long and arduous history. While many critics may argue that regional trade tends to undermine the authority of large trade institutions such as the previously mentioned WTO or ECOSOC, it is also important to keep current conditions in mind. First, Gavekal Research has found that the overall world economy has been hit with a trade recession, reporting decreased volumes of trade since 2010.³ Furthermore, the International Monetary Fund has identified Asia to specifically have been a contributing factor to such recession, in which it reported below-av-

erage trade growth in the past four years, from 2011-2015.⁴ The impact of the aforementioned trade recession is immense given the natural linkages between the successes of individual economies and the amount of trade engagement. Fortunately, as The Diplomat finds, the TPP could boost world income by as much as 295 billion dollars a year by making global trade more conducive as well as improving the overall flow of resources in the Pacific Rim.⁵

Second, regarding the effects on the U.S. domestic economy, the shift away from a policy of protectionism would be the most important consideration. Protectionism is the idea of a country artificially imposing restrictions and regulations to favor its domestic industries, and manifests itself in the United States in terms of agricultural subsidies, manufactured goods, and certain services. The greatest concern about the TPP, subsequently, would be that it mandates an alleviation of such restrictions and would consequently hurt the protected industries. However, an in-depth analysis shows otherwise -- as Stanford University Economics Professor Michael J. Boskin finds, protectionism is actually harmful for both international trade and individual economies on the grounds that first, barriers protecting certain industries create inefficiencies which sap away potential profits and second, it creates a tension between trade partners, which may ultimately escalate to a complete breakdown in trade relations between the United States and crucial trade partners.⁶ Ultimately, on the grand scheme, a shift away from protectionism should be conceptualized as a beneficial effect of the TPP agreement.

Next Steps:

- 1.) Both houses of United States Congress, the House of Representatives and the Senate, should immediately ratify the Trans-Pacific Partnership.
- 2.) Bureaucratic changes in U.S. trade policy should be subsequently implemented in order to comply with the conditions of the TPP.
- 3.) The United States should head further initiative in making the Pacific Rim conducive to free trade. These initiatives include, but are not limited to: expanding the scope of the TPP to include additional countries, removing tariffs or barriers on a wider span of industries, and completely deregulating certain items of trade on the international scale.

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The Cost of Bad Business: Preventing Non-Disparagement Clauses from Distorting the Market

By Jill Sternthal, Major: Policy Analysis and Management '18, Email: jms849@cornell.edu

Unbeknownst to some customers, many contracts include in the fine print a non-disparagement clause, which prevents consumers from publishing negative reviews of the product or service after purchase. Hindering full information about quality in the marketplace violates an important assumption of economic theory and creates marketplace inefficiencies. To ensure symmetric information and prevent market failure, Congress should pass the currently debated Consumer Review Freedom Act that bans these non-disparagement clauses.

Background:

Non-disparagement clauses often hide in the fine print of contracts and have the potential to invoke the threat of legal action and in some cases hefty fines against individuals who have something negative to say about a company and its services or products.⁶ In today's digital age of constantly sharing information and publishing content online, more and more consumers are experiencing the legal backlash of these laws, raising concerns about consumer protection in contract law.

When consumers breach contracts with non-disparagement clauses by publishing negative reviews, firms will typically give them 48 to 72 hours notice to remove the content or else face exorbitant fees. If individuals take the issue to court in order to dispute these fines, they are often at a disadvantage, as many lawyers struggle or are unwilling to challenge contract law. Additionally, while the fine may be high for publishing a bad review, is not high enough for lawyers to invest sufficient time to win the case, leaving consumers unprotected at the hands of unfair terms of agreement.⁶

Perhaps the most famous case to date of a non-disparagement clause in action is *Palmer v. Kleargear.com*, a federal lawsuit between a retailer and customer that took place in 2013. After writing negative comments of Kleargear on an online review site three years prior, Jennifer Palmer was fined \$3,500 by the company for breaching the gag clause. Unpopular among lawyers, the suit was pursued and eventually won with the help of the pro bono group Public Citizen, highlighting the importance of increased measures for consumer protection from unfair and unreasonable businesses practices.^{3,6} Since then, Palmer and Senate Commerce Committee Chairman John Thune have actively promoted legislation such as the Consumer Review Freedom Act to ban these egregious non-disparagement clauses.³ The Senate introduced the bill on September 16, 2015 and passed the law by unanimous consent in December of that year. It now awaits action by the House of Representatives before it can become law.⁴

Policy Idea:

In order to protect consumers and assurances of quality, the House of Representatives should pass H.R. 2110, the Consumer Review Freedom Act of 2015. Specifically this law would void contract clauses that prevent customers from providing written or oral reviews and inhibit any legal or financial repercussions for such published criticism.

Analysis:

Disallowing gag clauses in contracts would arguably allow the market to operate more efficiently, as both consumers and producers would have more knowledge about market transactions. One assumption of economic theory states that in order for markets to run efficiently, there must be full, symmetric information between the parties involved. Consumers who are aware of companies with poor products or services are then less likely

Key Facts:

- Non-disparagement, or gag, clauses have the power to silence negative customer reviews, regardless of how truthful they are.³
- They can exist in the fine print of virtually any contract, from hotels and rental houses to weight-loss products to dentists.⁶
- According to a study by Accenture, 65% of customers trust reviews written on a review site.²

to demand them. This punishes misleading, low-quality firms and incentivizes them to invest more time and resources in improving their products to keep them up to consumers' expectations. An end result is higher-quality products available in the market. The information available in negative reviews not only benefits customers, but suppliers as well, since the information about satisfaction (or lack thereof) with their products allows them to respond to these concerns and increase their brand reputation among customers, who otherwise would not return. Thus an argument against non-disparagement clauses is that they allow brands of worse quality to hide their inferiority to consumers and maintain a false, artificially high reputation.¹ Firms that know that their products are not up to par and are looking to take advantage of consumers' lack of knowledge benefit greatly from gag clauses, whereas companies that are trying to satisfy their customers will desire consumers' input in order to improve their products.

The Consumer Freedom Review Act would effectively ban these damaging gag clauses on a national level, creating an updated, universal approach to contract

law and its interpretations in court. Without a national consensus, the states and their courts are left to rule on breaches of non-disparagement clauses on a case-by-case basis. For instance in 2009, the Arizona district court upheld the validity of contracts with non-disparagement clauses after an individual created a website criticizing a nutritional supplement firm, FreeLife.⁷ However

in 2014, California Governor Jerry Brown signed into law AB 2365, or the "Yelp" bill, which prohibits companies from including non-disparagement clauses in all consumer contracts starting January 1, 2015.¹ Firms that violate this law will be fined \$2,500 for the first reported instance and \$5,000 for every following occurrence.⁵ Thus far California has been the only state to implement such a policy protecting consumers. The Consumer Review Freedom Act would extend the protections recently invoked in California to citizens across the U.S. and effectively allow markets to operate more efficiently through increased use of information.

Talking Points:

- In 2014, California passed a state law banning non-disparagement clauses in consumer contracts.¹
- The Consumer Review Freedom Act of 2015 would protect consumers from legal and financial repercussions by disallowing non-disparagement clauses on a national level.³
- The bill has been passed by the Senate and has been referred to committee in the House of Representatives, where it enjoys bipartisan support but has yet to be voted on.⁴

Next Steps:

On August 29, 2015, H.R. 2110 The Consumer Review Freedom Act was referred to the Subcommittee on Commerce, Manufacturing, and Trade in the House Committee on Energy and Commerce, where it has yet to be voted on. It has eight co-sponsors consisting of seven Democrats and one Republican.⁴ To discuss and enact this policy, the House of Representatives must bring the bill to a vote in committee, where the co-sponsors must rally their respective parties to pass the legislation. The bill has already passed the Senate, thus once it has passed the House of Representatives, it will be sent to the President to be signed into law.

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Granting Local Wage Authority in New York State

By Mason Miller, Major: Industrial and Labor Relations '17, Email: mrm335@cornell.edu

To support wages, reduce poverty, and provide a boost to local economies, states around the country that haven't already should grant their localities the ability to set their own minimum wages.

Background:

Many localities across the United States have passed minimum wage laws, but only some of these have been implemented. This is because states have different policies on exactly who has wage authority, or the ability to set a minimum wage. Take Birmingham, Alabama for example, where the effective minimum wage is the federal minimum wage of \$7.25/hour. Just over a month ago, the city of Birmingham passed a law raising its wage floor to \$10.10/hour, citing a desire to alleviate poverty and stimulate consumer demand in their economy. But before the increase could kick in, the Alabama state legislature fast-tracked a bill that struck it down and blocked any future locality-specific minimum wages.

Another example is our very own Ithaca, New York. There is momentum among the cities within Tompkins County for a county-specific minimum wage. Recently the towns of Ithaca, Dryden, and Caroline have put pressure on the County legislature to raise the minimum wage. While a recent state law will raise the Tompkins County minimum wage to \$12.50/hour gradually over the next four years, the movement in Tompkins County calls for a living wage, which has been determined to be \$14.34/hour. But like in Alabama, localities in New York State are not allowed to set their own minimum wages. This is a sharp contrast from cities like Seattle, San Jose, and Portland – all of which were able to set their own minimum wages.

Policy Idea:

Cities and counties with high poverty rates and low private sector wages should put pressure on their state governments to grant them local wage authority. Once this is achieved, they should set higher wage floors to lift their low earners out of poverty and stimulate the local economy. Only organic, bottom-up approaches such as the Tompkins County living wage campaign have the leverage necessary to achieve local wage authority.

Analysis:

Birmingham and Ithaca are only two of hundreds of cities across the U.S. that suffer from high poverty rates due in large part to high amounts of low-wage employment in the service industry. In Tompkins County, about 17,590 workers have jobs that pay below the living wage on average – that's 38% of the region's workforce. Meanwhile, the poverty rate for Tompkins County was estimated at 18.7% in 2014. Compare that to the national average of 15.5%. Boosting the minimum wage would alleviate poverty for thousands of low wage workers who struggle to keep up with high costs.

Low wages coupled with especially high costs of living put a squeeze on the Tompkins County working class. Two private universities, Cornell and Ithaca College, drive up rent prices in Ithaca and the rest of the county. The average price of rent in Tompkins County has gone up 6% a year, and makes up about 40% of the total cost of living. Meanwhile, wages have been stagnant for years. And remember that the \$14.34/hour figure is for a single adult working full time. Tompkins County has more than its fair share of single parents, many of whom have to come up with childcare payments as well.

Talking Points:

- Costs of living vary greatly within a single state, so localities should be able to set their own minimum wages.
- Employers in the service industry have little reason to raise wages on their own, and the real minimum wage has declined since the 1970s. Some workers rely on minimum wage increases for raises.
- Continued and concentrated poverty puts a drag on the local economy, including taxpayers, governments, and businesses.
- Lower-income consumers spend nearly all of the money they get from increased wages, and the vast majority of this spending boosts the local economy.

Next Steps:

A groundswell of support from workers and taxpayers is needed to leverage the locality into passing a minimum wage law. Convincing state governments to grant local wage authority will be difficult in many cases, as most are strongly committed to keeping restrictions off of businesses. That's why support should be bottom-up, to put as much pressure as possible on state governments. Arguments should be based on poverty alleviation, the working class, and the economy. The focus should be on getting state governments to grant explicit wage authority instead of convincing them to not interfere with singular local minimum wage increases. This way, other localities can take advantage of the precedent and set their own minimum wages if need be.

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REIMAGINE THE RULES

Making Way for Mental Health Education and Removing the Nation's Lost Earnings

By David Howe, Major: Policy Analysis and Management '18, Email: deh267@cornell.edu

Children's mental health acts as an early determinant for their future. The nation has made little effort in addressing mental health as a whole and as a result, the economy is suffering dramatically. Schools must develop mental health programs that will enhance productivity and boost the economy.

Background:

At first, addressing mental health seems like an additional cost to society that is simply not feasible. However, the poor quality of mental health care in the United States results in \$193.2 billion in lost earnings. Roughly 75% of this loss is the result of mentally suffering individuals' reduced earnings and nearly 25% is the result of the decreasing chance that a mentally ill individual may have any earnings whatsoever. One reason this may come as a surprise is because many of the factors are indirect costs. Researchers analyzed the 1994-1995 National Household Survey of Drug Abuse and discovered 19% of those participating in welfare programs suffer from mental illness. Close to 25% of prisoners suffering from poor mental health had been previously incarcerated three or more times. The United States has the highest incarceration rate of any country and the failure to address mental health among prisoners only adds to the cost of overcrowded prisons.

Key Facts:

- U.S. has \$193.2 billion in lost earnings due to poor mental health
- 19% of welfare recipients suffer from mental illness
- Mindfulness in the workplace increases productivity by 62 minutes

Policy Idea:

My plan is inspired by Brandon Marshall's efforts to train parents and teachers to educate youth on mental health. However, I believe that a mental health curriculum must be directly established into public education. I propose that the nation implements a mindfulness curriculum directly into elementary and middle school coursework. Specifically, methods from Dialectical Behavior Therapy will be taught. Marsha Linehan, a psychologist at the University of Washington, created DBT. Although DBT was originally developed to treat those with borderline personality disorder, all people from all backgrounds can benefit from it.

Mindfulness, distress tolerance, interpersonal effectiveness, and emotion regulation are the four units of DBT that will be taught. Often DBT is taught by trained professionals, though, school teachers certainly can adopt it and there is no doubt that children will benefit.

Analysis:

Mindfulness practices such as Dialectical Behavior Therapy can help anyone better manage their emotional well-being and establish a sense of compassion for others. It is crucial for elementary and middle schools to adopt mindfulness curricula, as those years are especially effective in childhood development. Mark T. Bertolini, CEO of

Aetna, offers meditation classes to his employees. Greater than 25% of the company has taken advantage of these classes and as a result, employees have experienced a 28% reduction in levels of stress and the quality of their sleep has risen by 20%. Bertolini has noticed an additional 62 minutes of productivity per worker. Certainly, this success can be replicated in a school setting. DREAM Charter School in Harlem has already adopted mindfulness into its curriculum. The principal of DREAM, Eve Colavito, believes that the mindfulness education has

Talking Points:

- Poor mental health crushes the nation's economy
- Mindfulness curricula in schools will create a better environment and increase productivity
- Implement mindfulness practices such as Dialectical Behavior Therapy into the health curriculum taught at public schools

improved the focus of each student. Additionally, introducing children to mindfulness practices at a young age will have a significant impact because that is the point in their lives when they are developing the most. Practicing mindfulness allows for an increase in individual productivity, respect for others, and healthy communities.

Next Steps:

First and foremost, mindfulness practice with an emphasis on Dialectical Behavior Therapy must become a requirement in the curriculum within public school systems. Policy makers will be attracted to its short run societal benefits as well as its long run economic benefits. Once implemented into a curriculum, teachers (preferably health educators) must undergo a training in Dialectical Behavior Therapy from “DBT Skills Training Manual: Second Edition” by Marsha M. Linehan of The Linehan Institute, as well as any other mindfulness methods they may wish to teach. No additional classes will need to be created as mindfulness methods and DBT may be taught in health classes or wherever the schools deem appropriate.

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Improving Romania's Economic Accessibility through Transportation Sector Reform

By Artemis Tapliga, Major: Government and Economics '18, Email: att28@cornell.edu

Romania's economy cannot expect to thrive without transportation infrastructure to connect urban areas to rural areas to the rest of Europe. This policy aims to privatize enterprises and utilize European Union funds to upgrade the national railway and motorway networks.

Background:

Romania is one of the most populous countries in Eastern Europe, with a population of around 20 million inhabitants. It holds a geostrategic position not only for itself, but also for the European Union due to the country's close proximity to Russia, Turkey, Ukraine, and the Black Sea. In addition, it is also rich in resources that are not being fully utilized due to poor labor mobility, communication, and accessibility. However, all of these assets represent untapped potential for developing Romania's economy in the face of its glaring lack of proper transportation infrastructure.

A central reason behind the poor transportation infrastructure is the persisting existence of State-Owned Enterprises (SOEs). With high levels of debt, low profitability, and lack of motivation, these SOEs are not only inefficient, but they also have negatively impacted the railway and road sectors due to improper management. As a result, the most important networks of transportation in the country are unable to properly connect Romania itself, in addition to connecting it with the rest of Europe.

Key Facts:

- Out of Romania's 84,185 km of roadway, only 49,873 km is paved.
- Between 1990 and 2012, the length of rail lines dropped from 11,348 km to 10,777 km.
- Only 4,032 km or 37% of rail lines are electrified versus the EU's 54% average.

Policy Idea:

In order to help alleviate the obstacle of poor transportation, I propose the privatization of state-owned transportation enterprises and a subsequent effective allocation of European Cohesion and Social Funds. These funds are granted by the European Union to countries that propose effective projects in need of funding. The first goal of this investment is to improve and maintain national roads in order to increase the percentage of paved roads. The second goal is to complete and maintain roadway and railway international networks. The third goal is to create an administrative team of experts to help monitor this process. These goals will help strengthen Romania's transportation preexisting infrastructure that is currently or nearly unusable. This will help improve flow of

Analysis:

The first step is to target the privatization of transportation companies. This must start with large SOEs, including the railway giant Căile Ferate Române (CFR). The goal of privatizing transportation SOEs is to force inefficient enterprises to no longer be dependent off of government subsidies in times of trouble. By becoming privatized, the SOEs currently facing high debts and low profitability will be motivated to restructure themselves in order to become more efficient and profitable as unemployment and bankruptcy become real threats without government back up.

In order to support the newly privatized enterprises, European Regional Development Funds, used to support small and medium-sized private enterprises through infrastructure costs, will provide the transportation enterprises that have the largest shares of the market (i.e. CFR) a one-time starting fund only for approved projects for transportation improvement that will be broken down in the subsequent paragraphs. The goal is to encourage enterprises to immediately engage in creating definitive and well structured plans in order to receive the funds necessary to help grow the industry and sustain the enterprises themselves.

Romania has been awarded €23 billion in European Cohesion Funds, of which €9.5 were allocated

to transportation, environment and energy projects. These funds, in addition to the nationally co-financed €2.3 billion and the European Bank for Reconstruction and Development's contribution for railway funding, will provide the base for these transportation projects. With only 59.2% of the country's roads paved, part of these funds will be invested in properly asphaltting preexisting roads, focusing highways and roads that connect large cities, such as Bucharest, Brasov, Cluj-Napoca, Sibiu, Focsani, Pitesti, etc., with surrounding localities. This will help provide better market access between localities and urban areas, in addition to improving labor mobility.

Talking Points:

- 1. Current developmental aid has two deficiencies: focus on state sector as well as bureaucratic inefficiency and corruption
- 2. Microfinancing remedies both of these deficiencies and also generates revenue

The second, and larger, portion of the funds will be primarily used to maintain and improve the Trans-European Transport Network (TEN-T) that connects Romania with the rest of Europe. This will not only be invested in road maintenance, but also railways. This investment will not only promote distribution and consumption of goods from large cities to outside countries, but it will also improve the current situation of areas with low accessibility to national and foreign markets. In addition, the increase in circulation of international goods will help increase competitiveness and innovation in the country, thus reinvigorating the economy.

Next Steps:

In order for the transportation system to improve and allow for Romania's economy to flourish, it is crucial for the current Minister of Transportation to enact aggressive privatization policies within the next 2-4 years before the next round of European funds will be awarded to EU countries. Despite previous attempts made by Romania in the late 1990s to privatize the system after the collapse of the socialism, efforts to create substantial change have been constantly postponed. Without this first step, European Funds will serve no purpose in the face of a country with low administrative capacity that prevents absorption of funds to its government-owned enterprises.

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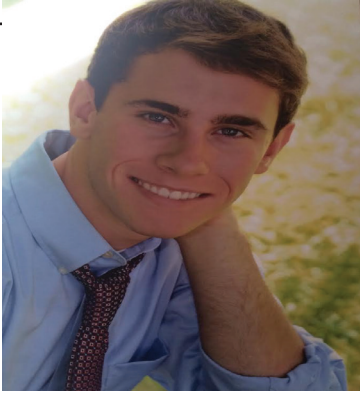
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Meet the Center for Economic Policy and Development

Jack Polizzi, Director



Jack is a Sophomore majoring in Policy Analysis and Management in the School of Human Ecology. In addition to Roosevelt, he is an analyst in the Cornell Federal Reserve Challenge Club conducting monetary policy analysis and a brother in Phi Alpha Delta Pre-Law Fraternity, along with being a former member of the Cornell Lightweight Rowing team. He is an avid reader of a wide variety of news media, including the *New Yorker*, *The Economist*, *The Atlantic*, *The New York Times*, *Foreign Policy*, and many others. This summer he will also be serving as an intern in the United States Senate. He is from Simsbury, Connecticut.

Mason Miller



My name is Mason Miller, and I'm a Junior pursuing a major in ILR with a minor in Economics. Besides writing for the Roosevelt Institute, I research and present on macroeconomics and monetary policy as part of Cornell's Federal Reserve Challenge Club, conduct research on higher education policy for Professor Ronald Ehrenberg, serve as a Commissioner on the SAFC, and act as President of Men's Club Water Polo. In my free time you can find me researching more about economic policy, reading literature, hiking, exploring U.S. National Parks, or relaxing on the Southern California beaches I call home. Someday I hope to make this world a better place through economics, education, love, and compassion.

Tony Zhou



Tony Zhou is a freshman in the College of Arts & Sciences at Cornell University, majoring in Economics and Philosophy and minoring in International Relations. He is a member of the Cornell Policy Debate Team and a Staff Writer for *The Diplomatist*. His policy interests include international economic development and U.S. foreign policy in Africa. He is from Naperville, Illinois.

Jill Sternthal



Jill is a sophomore in the College of Human Ecology, majoring in Policy Analysis and Management. She is particularly interested in studying the economics behind public policy. Outside of the Roosevelt Institute, she is an active member of the Cornell Ultimate club team.

Artemis Tapliga



Artemis is a Sophomore in the College of Arts and Sciences double majoring in Government and Economics with a Minor in International Relations. Her interests lie in European monetary and fiscal policies, with a focus on Eastern European development.

III. Center for Education Policy

*“The school is the last expenditure upon which America should be willing to economize.”
-Franklin D. Roosevelt*

Director

Phoebe Keller ‘18

Analysts

Gideon Teitel ‘17

Toni-Anne Richards ‘18

Brandon Mok ‘19

Emil Kunkin ‘19

Letter from the Policy Director

“Expanding Charter School Programs”

Gideon Teitel

My proposal would expand charter school programs, which would provide more choices for families, such as specialized curriculums and generate competition, leading to innovation in education.

“Socioeconomic Integration Through School Choice Should be NYC Public School Policy”

Toni-Anne Richards

Factoring socioeconomic information into school choice can help to desegregate schools with predominantly low-income students in economically mixed New York City neighborhoods.

“Addressing the Academic Achievement Gap”

Brandon Mok

Measures must be taken to address statistics which showcase the disparity in academic achievement between white students and minority students.

“Delocalize Public School Funding”

Emil Kunkin

The government must end localized funding to public schools through property taxes to ensure equal education opportunities for all students.

Meet the Center for Education Policy

Letter from the Director

Dear Readers,

I am excited to present to you the tenth issue of *Looking Ahead: The Cornell Roosevelt Institute Policy Journal* by the Center for Education Policy and Development. This journal contains the work of four policy analysts; each of whom spent many hours doing in-depth research and careful deliberation to find solutions to the problems plaguing our education system today.

As students at Cornell University, we've experienced firsthand much of the benefits that our education system has to offer. With this, however, we become more aware of the gaping and ever-increasing inequality that still exists. From school vouchers to teacher unions to charter schools, one could spend countless hours debating proposed solutions. We all come from incredibly diverse backgrounds to attend one of the best academic institutions in the world, and with our varying perspectives we are in a unique position to discuss and search for solutions that ensure the greatest possible achievement in education.

Each proposal in this journal engages with some of the toughest issues surrounding education reform. Together, they show all that we have the potential to accomplish if we fight hard enough. We're lucky to be where we are today because of education; it's up to us to provide this opportunity to everyone.

Sincerely,

Phoebe Keller

Arts and Sciences '18

Director, Center for Education Policy and Development



Expanding Charter School Programs

By Gideon Teitel '17, Email: gt249@cornell.edu

My proposal would expand charter school programs, which would provide more choices for families, such as specialized curriculums and generate competition, leading to innovation in education.

Background:

Minnesota created the first charter school in 1991 and today there are over 6,700 charter schools teaching 2.9 million students. New Orleans is nearly the only city in the U.S. whose majority of students are enrolled in charter schools. This is largely due to a major educational restructuring after Hurricane Katrina as charter schools could act more quickly during the crisis compared to normal schools that were bounded by bureaucracy. One particularly successful charter school system is the Knowledge is Power Program (KIPP) whose lottery selected enrollment is 96% African American or Hispanic and 87% eligible for federally subsidized meals. Remarkably, as of spring 2015, 45% KIPP students have graduated from a 4-year college after completing eighth grade at a KIPP middle school at least a decade ago. This is 11% above the national average and 36% above the low-income community's average. KIPP doubles down on education time for its students by mandating Saturday classes, offering three additional weeks of classes in July, and holding 7:30 am to 5:00 pm school hours. It all adds up to 60% more learning time than normal public schools. Mathematica Policy Research, the Brookings Institution, among others found that KIPP significantly increased students' academic performance, especially math and reading.

Key Facts:

- The dual language programs at George Washington Elementary helped 2nd grade dual language students outperform their peers on the Developmental Reading Assessment by 8%.
- Latinos in two-language programs performed better on the state's English Language Arts test than students in English immersion programs, going from 0.15 standard deviations below their peers in second grade to 0.2 derivations above them by eighth grade.
- Dual language programs in NYC schools have increased to the current total of 180.

Policy Idea:

The government should provide even more lucrative tax-deductible exemptions to those who donate to charter schools that follow the rigorous KIPP model. KIPP was made possible by the \$15 million grant from Donald Fisher, the co-founder of Gap Inc.

Analysis:

The Charter schools not only receive state and federal funding, but can also uniquely harness the power of the private sector. This ___ is because the buildings where they hold classes are owned by landlords, which makes real-estate investors more eager to develop new charter schools. A meta-analysis found that charter schools' tailored teacher training methods and firm accountability policies led to outperforming public school elementary counterparts in reading and math. Jonathan Bertsch New Orleans KIPP director identified that "The main difference is that most of the charters have the freedom to change, to get better, to hire the people they need to make the school better." They also discovered that charter schools in urban areas did better than rural ones. New Orleans charter schools outperformed traditional schools on the Louisiana Educational Assessment Program (LEAP). Another study found that the charter "no excuse" model achieved improvements .25 and .16 standard deviations in math and literacy respectively. "No excuse" refers to the high academic standards, targets for underachievers, and austere disciplinary policies. Many teachers unions oppose charters because they effectively increase competition and pressure teachers to perform with limited job security. However, this pressure drives teachers to be more persistent in helping students learn. Charter schools are formed as its namesake suggests, through a written grant from the government. This contract, which typically lasts three to five years,

for additional teachers. In 2014, Stanford University study showed that, in the long-term, Latinos in two-language programs performed better on the state's English Language Arts test than students in English immersion programs, going from 0.15 standard deviations below their peers in second grade to 0.2 derivations above them by eighth grade.

Next Steps:

More state and federal funds should go towards established charters that serve at-risk youth and are ready to make the commitment to offer more class time. Foundations should be offered higher deductible rates for their donations to charters. There are many empty school buildings that could be put to good use as spaces for charters, but this been prevented by government bureaucracy. Local and state governments must be lobbied, in Washington D.C. for example, to allow charters to occupy these abandoned buildings.

Talking Points:

- “The main difference is that most of the charters have the freedom to change, to get better, to hire the people they need to make the school better,”
- There are many empty school buildings that could be put to good use as spaces for charters, but this been prevented by government bureaucracy.

Key Facts:

- KIPP's high school graduation rates are 11% above the national average and 36% above the low-income community's average.
- The charter “no excuse” model achieved improvements .25 and .16 standard deviations in math and literacy respectively.

Endnotes:

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REIMAGINE THE RULES

Socioeconomic Integration Through School Choice Should Be NYC Public School Policy

By Toni-Anne Richards '18, Email: tr284@cornell.edu

Factoring socioeconomic information into school choice can help to desegregate schools with predominantly low-income students in economically mixed New York City neighborhoods.

History:

Despite the efforts of *Brown v Board of Education*, schools are more racially and socioeconomically segregated now than they were in the 1970s, and New York State leads the nation in segregated schools. Much of school segregation is actually a reflection of neighborhood segregation patterns that occurred for socioeconomic reasons over decades of demographic shifts. These economically segregated neighborhoods result in inferior education for students. Studies have shown that the income achievement gap has a more noticeable effect on student success in the classroom. Families in New York City usually send children to neighborhood schools and are willing to pay large amounts to live in areas with high-performing public schools. If not, some apply to charter schools or schools outside of their zones through a lottery system. In rapidly gentrifying areas of the city, low-income students leave their neighborhoods due to lack of affordable housing while higher income families in that school zone use school choice to get their child into the best schools in other zones. A 2015 study showed that schools in these 'integrated' neighborhoods still have more than 90% black and Latino enrollment despite being in economically and racially mixed neighborhoods. In District 5 in Harlem, 84% of the pupils at Public School 125 are black and Latino, yet the proportion of black and Latino people living in that zone is 37%. These mixed socioeconomic areas provide a possible area of improvement in the efforts to develop educational opportunities for low-income middle school students in gentrifying areas of the city.

Key Facts:

- Gainful Employment regulations require that the estimated annual loan payment of a typical graduate does not either exceed 20 percent of his discretionary income or 8 percent of his total earnings.
- In 2013, New York State's two-year for-profits graduated a larger percentage of their full-time associate's degree students than any other higher-education sector, including private nonprofit colleges.
- 32% of all community college graduates and 57% of private institutions earn less than high school dropouts, according to a recent Pell report.

Policy Idea:

Using socioeconomic integration is a less inexpensive and politically contentious ways to improve academic achievement for low-income students. To ensure that there are no segregated schools in integrated neighborhoods, controlled school choice and incentivizing middle-class families to send their children to school zone schools can be used to overcome the socioeconomic barriers that face low-income students.

Analysis:

Socioeconomic integration policies are increasingly being used in charter and public schools through the nation as a preferred method of promoting diversity and fair admissions. According to a Century Foundation Study, the number of districts using socioeconomic factors in their assignment policies has increased from 2 to 91 since 1996. A 2010 study found that low-income students at integrated schools had better testing scores than those from poorer socioeconomically homogenous schools, particularly in math and science while the scores of upper-income students did not decrease. A 2010 North Carolina Law Review report found that 42 of the 59 studies cited socioeconomic status as having effect on the improved mathematics outcomes of students in socially integrated schools, proving that as the concentrations of low-income students increase, positive math outcomes decrease. New York City Community School districts 1, 6, 13, 15 and 17, three of which are in the heavily gentrified parts of the city, use magnet choice school admissions with socioeconomic integration policies.

Next Steps:

Implementation of these policies will require agreement from school district community councils in economically mixed neighborhoods throughout the city to buy into a public planning process around the modified admissions system. School district 1 was able to implement this controlled-choice system due to a \$1.25 million state grant by former state education chief John King to schools where at least 70% of students are considered poor. The proposed system would still allow families to list their school choice preference but would also factor socioeconomic information about families into the matching process. School choice in addition to district-wide enrollment systems could be used to draw talented students from outside of segregated schools in integrated districts to help diversify the socioeconomic makeup of the class. This, in addition to the increased funding the school zone would receive due to the higher city tax levy that comes with higher income residential areas, would put attending students in a better academic position.

Talking Points:

- Socioeconomic integration is an effective way to improve academic achievement for low-income children.
- Higher-income parents have the political clout and resources to demand better resources in local schools
- School choice with socioeconomic factors academically benefits lower-income students without harming higher-income students from the same neighborhood.

Key Facts:

- Public schools in socioeconomically mixed neighborhoods like District 2 in Harlem are still predominantly attended by lower-income students who don't live in the school zone.
- The number of national school districts using socioeconomic factors in their admissions policies have increased from 2 to 91 since 1996.

Endnotes:

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Addressing the Academic Achievement Gap

By Brandon Mok '19, Email: bm543@cornell.edu

Measures must be taken to address statistics which showcase the disparity in academic achievement between white students and minority students.

History:

Given the constant dialogue regarding the situation of race and academic success, one would think that major improvements were being made in the area of education for minorities. However, that is clearly not the case when one looks at the statistics of academic achievement between white students and minority students - especially those of African-American heritage. Through a consistent set of studies, it has been shown that a considerable achievement gap between black students and white students exists, and is currently expanding. For example, according to the National Assessment for Educational Progress (NAEP), reported by the Council of the Great City Schools (CGCS) in their education report A Call for Change they found that only 12% of black fourth-grade males were proficient in reading, compared to 38% of white males. With regards to mathematical ability, 44% of white males are considered proficient, whereas only 12% of black males were seen as such (1). At the secondary school level, one needs only look at those infamous SAT scores used to determine access to a college education. The average SAT score for a black test-taker is 431 in reading, 429 in math and 418 in writing. Compared to this, white test-takers averaged 529 in reading, 534 in math and 513 in writing (2). To what can we attribute these persistent inequalities in academic achievement? Insofar as these statistics can attest to the existence of such a gap, we must consider what measures we can introduce to ensure that in the future, this gap is reduced in size and everyone, regardless of race, can succeed to their fullest potential.

Analysis:

There are a multitude of factors that have contributed to this negative phenomenon. First of all, and perhaps, most insidious of all, is the stereotyping that occurs in classrooms presided over by a white teacher. Because there is issue by which white and Asian students are perceived as more likely to be gifted and talented and then nominated by teachers for gifted and talented programs on that basis. There is clearly a disparity of enrolment in gifted and talented programs, as evidenced by the fact that in New York City elementary schools, such programs are approximately 70% white and Asian, while the public school system is 70% black and Hispanic (3). Secondly, the fact that financial support public schools receive comes from property tax means that schools in which the median income is highest and which, as a consequence, receive the most funding are going to be the ones that are most well-equipped to prepare their students for a more successful academic career. Racial residential segregation persists in the United States, with minorities such as African-Americans and Hispanics in lower-income areas, while Asian-Americans and white Americans are concentrated in higher-income areas. This creates a self-perpetuating cycle by which the poor cannot elevate themselves out by means of education because the schools they have access to are simply not good enough, while those who live in already high-income areas benefit from the high-quality schools they go to and thus succeed academically.

Next Steps:

To address the issue of biased or faulty selection possibly based on race, the pre-screening that happens today should be removed and all schoolchildren should be allowed to take a test that determines placement in gifted and talented programs. Such measures could allow for greater racial diversity in those programs and thus ensure that historically underrepresented minorities will now have greater representation in them and allow them to develop more. Secondly, the system of property tax funding schools in the local area should be dismantled so the self-perpetuating cycle of wealth begetting more academically competent students along racial lines no longer persists. This would have the effect of ensuring that even though there still might be racial residential segregation, that fact won't prevent talented students from gaining better academic opportunities.

Endnotes:

1 “) <http://www.theharrisfoundation.org/sitecontent/776/bridging-the-achievement-gap-between-black-an.aspx>

(2) <https://www.insidehighered.com/news/2015/09/03/sat-scores-drop-and-racial-gaps-remain-large>

(3) http://www.slate.com/blogs/schooled/2015/09/30/gifted_and_talented_programs_under_scrutiny_white_and_asian_students_have.html



Delocalize Public School Funding

By Emil Kunkin '19, Email: ezk5@cornell.edu

The government must end localized funding to public schools through property taxes to ensure equal education opportunities for all students.

Background:

Public schools are one rare common denominator in American society. Regardless of where a child is from or their socioeconomic status or of their cultural background, they are entitled to a state funded education through high school. While all American children have this right, the quality of public education varies significantly between school districts. Parents are able to buy their children a better schooling simply by buying a house in a wealthier neighborhood. The quality of a child's schooling can have an enormous influence

on their future, yet there is major inequality in the way that public schools are funded. Public schools get their funding from several sources; local, state and federal, but the way local money is allocated is one of the largest sources of inequalities in public schooling¹. Property taxes pay for a large percent of school districts' budgets, and schools in wealthier districts are thus able to raise funds from a larger tax base. While funding does not dictate success or failure, there is a correlation between how well funded a school district is and the educational outcomes for its students². It certainly seems unjust and contrary to the reasoning behind public education that students in high income neighborhoods have access to better funded schools than those in lower income districts. Therefore, it makes sense for states to end the localization of public school funding from property taxes.

Key Facts:

- The differences between the quality of public education for the rich and the poor is a major contributor to income inequality⁸.
- The United States is the only large country with an extensive public education system that is funded based on local wealth⁹.
- Local property taxes are the largest factor behind unequal school funding.

Analysis:

It is clear that school districts all receive different levels of funding. Of the 100 largest school districts, funding level runs the gamut between 20500 dollars per student in Boston, Massachusetts, and just 6100 dollars per student in Davis county, Utah³. While less extreme, these differences are found within states too; Fairfax county, a wealthy county in northern Virginia spends almost 4000 dollars more per pupil than Henrico county, located in the center of the state⁴. Fairfax county is able to spend this much more than Henrico county mostly because of local funding. Henrico County derives roughly half of its school budget from local sources, mostly property tax. Fairfax schools, however, get almost three quarters of their funds from local sources⁵. This is a clear example of how a wealthier area is able to spend more on its public schools than poorer countries.

There are several policy options available to remedy this issue. While there have been successful lawsuits at the state level, the supreme court ruled in *San Antonio Independent School District v. Rodriguez* (1973) that unequal funding is not unconstitutional⁶. So, any solutions would likely be at the state level. Some states have mandated that all districts spend similar amounts per student, but these rules are filled with loopholes, and when they are effective, they mostly have the effect of depressing spending on schools statewide⁷. One possible solution is to essentially delocalize school funding. Since the local component is the major driver in funding inequality, eliminating that component would significantly reduce it. Since local governments contribute about half of most school's funding, it is impossible to eliminate their impact, but it might be possible to standardize it.

The strongest potential solution is for state governments to mandate that local revenue earmarked for public schools be fed into a central fund, and disbursed equally per student to districts across the state. This would eliminate the funding discrepancies between districts within states, but not between them. There are several issues with this policy. Primarily, conservatives and people living in wealthier districts will be opposed to what amounts to wealth redistribution, making this policy very difficult to enact politically. Second, wealthier districts could simply respond by cutting property taxes. So, the best solution might be to move school funding entirely out of local hands. Rather than each district setting property taxes to fund schools, collect this tax at a

for additional teachers. In 2014, Stanford University study showed that, in the long-term, Latinos in two-language programs performed better on the state's English Language Arts test than students in English immersion programs, going from 0.15 standard derivations below their peers in second grade to 0.2 derivations above them by eighth grade.

Next Steps:

Although local funding of public schools is the common practice in the United States, it is not common elsewhere in the world. Using other countries as a model, it is imperative to explore ways to fund schools uniformly at a statewide level. While it would run counter to *San Antonio V. Rodriguez* to do the same at the federal level, the Department of Education should be involved in at least an advisory role, if not actively funding or incentivizing the standardization of school funding. The most difficult part of delocalization will be to gain political support for it. It must be successfully implemented in several states, most feasibly small, left leaning ones, to get wider acceptance. Delocalizing school funding will not be easy, but it is possible, and it will allow American children more equal opportunities.

Endnotes:

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4 *ibid*

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Meet Our Education Policy Center



Phil Kunkin

Phil Kunkin is a freshman from Silver Spring, Maryland, majoring in the College of Arts and Sciences from Westchester, New York. Outside of Roosevelt she is the Managing Editor of The Cornell Daily Sun.



Gideon Teitel

Gideon is probably going to minor in business and economics. He is a member of the 5th-in-the-world ranked Speech and Debate Union. He is also President and #1 player on the Cornell Table Tennis Team.



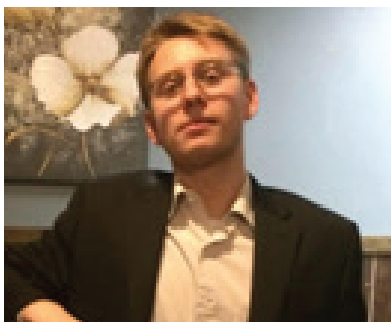
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Toni-Anne is a sophomore in the College of Arts and Sciences from the Bronx double majoring in American Studies and Government. Outside of Roosevelt, she volunteers with CU-IMAGE and is a member of Lavender. Some of her interests include politics, soccer and documentaries.



Brandon Mok

Brandon is a freshman majoring in History at Cornell. He is from Hong Kong. At Cornell, he is a College of Arts & Sciences Ambassador and a member of Kappa Alpha Pi, the professional pre-law fraternity.



Emil Kunkin

Emil Kunkin is a freshman from Silver Spring, Maryland, majoring in government and economics.

IV. Center for Energy & Environmental Policy

“A nation that destroys its soils destroys itself. Forests are the lungs of our land, purifying the air and giving fresh strength to our people.”

-Franklin D. Roosevelt

Director

Veronica Dickson '18

Analysts

Jeffrey Kim '18

Abhinav Vijay '17

Shashank Vura '19

Letter from the Director

Jineet Patel '18

Ethan Skelskie '18

Catherine Hwang '18

Daniel Huynh '19

“Coral Bleaching: The world’s coral reefs are being decimated by carbon dioxide emissions”

Ethan Skelskie '18

One unintended consequence of carbon dioxide emissions is widespread coral bleaching. Coral bleaching has become more pronounced in recent years, as rising temperatures, increasingly acidic oceans, and more frequent disease outbreaks decimates reefs around the world. Scientists around the world are scrambling to figure out how to save the reefs we have left.

“The Endangered Species Act: An outdated listing system”

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“Regulating Deicers: Clearing icy roads while protecting the environment”

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While the oceans may seem like an unmovable force that mankind is unable to alter, they are vulnerable to human pollution and Congress must take a step towards ocean conservation.

“Mountaintop Removal Reclamation: Mitigating the damage of coral mining in Appalachia”

Shashank Vura '19

In order to preserve areas of extreme biodiversity, preserve aquatic resources, and prevent damage to the health of local communities, the reclamation of sites affected by mountaintop removal mining must be implemented across Appalachia..

“Mitigating U.S Carbon Emissions: Implementing Energy Efficient Lights”

Daniel Huynh '19

A federal mandate to state government to devise a plan to install LED lighting in all public buildings and government-owned facilities can mitigate atmospheric CO2 as well as energy consumption. LED lights are overall use less energy and lasts longer than incandescent light bulbs and compact fluorescent light bulbs (CFLs). Despite LED lights being costlier than its counterparts, the government can save more money in the long run.

“Nuclear Disasters: Encouraging Research for Radiation Measurements”

Catherine Hwang '18

By developing methods of measuring radiation, the United States can understand better the effects of nuclear energy and calculate costs and benefits.

Meet the Center for Energy and Environment

Letter from the Director

Dear Readers,

I am proud to present the tenth issue of Looking Ahead: The Cornell Roosevelt Institute Policy Journal from the Center for Energy and Environment. In my first semester as the Policy Director and Editor of this journal, I was fortunate enough to have the privilege of working with each these analysts individually on the issues that inspire them.

From coral bleaching to regulating deicers, each analyst has combined creativity and passion with careful research and hard work to produce the policy proposals that comprise this publication. I have found each piece to be enjoyable to read and incredibly thought provoking and I hope you will as well.

Sincerely,

Veronica Dickson

Industrial and Labor Relations (ILR '18)

Director, Center for Energy & Environment



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Coral Bleaching:

The world's coral reefs are being decimated by Carbon Dioxide emissions.

By Ethan Skelskie, Major: History '18, Email: ees87@cornell.edu

One unintended consequence of carbon dioxide emissions is widespread coral bleaching. Coral bleaching has become more pronounced in recent years, as rising temperatures, increasingly acidic oceans, and more frequent disease outbreaks decimates reefs around the world. Scientists around the world are scrambling to figure out how to save the reefs we have left.

Background:

Coral reefs contribute \$375 billion to the global economy annually. 500 million people depend on the resources provided by coral reefs every year. Additionally, coral reefs provide the basis for ocean ecosystems all around the world. Coral share a symbiotic relationship with a phytoplankton that live inside them called zooxanthellae. Zooxanthellae photosynthesize and help sustain the coral while the coral protect the zooxanthellae with their calcareous shell. It is the zooxanthellae that are the source of the coral's color. Bleaching occurs when external conditions

become so stressful that the coral are forced to expel their zooxanthellae, an important food source. While the possibility exists that coral can regain their zooxanthellae if conditions return to normal, if they do not, coral bleaching can lead to coral die offs. There are a number of reasons why coral bleaching can occur. Climate change has been linked to the rise of coral bleaching. The rising sea temperatures have been known to cause coral bleaching. Another major cause of coral bleaching is ocean acidification. Ocean acidification occurs as a result of carbon dioxide from the atmosphere dissolving into the water. The carbon dioxide reacts with the water to carbonate, which in turn combines to form bicarbonate. The bicarbonate ultimately lowers the pH of the water, which in turn makes it more acidic. This harms coral reefs as it makes it harder for them to use carbonate to create their exoskeletons. When coral bleach, they expel their zooxanthellae. However, this does not have to be fatal. If restored quickly enough, the coral can resume living. Some coral have demonstrated the ability to adapt in which microorganisms they intake certain types of dinoflagellate plankton can be used as substitutes for zooxanthellae.

Policy Idea:

Coral bleaching has become an alarming trend in recent years. From both an economic standpoint and an environmental one, coral bleaching poses a serious problem. While it is difficult to directly address coral bleaching as an issue because of its connections to climate change and ocean acidification, there are nonetheless steps that can be taken. While the National Oceanographic and Atmospheric Administration already offers grants to study coral, they are few and only provide funding for a short period of research.

Analysis:

With both the economic and environmental costs in mind, it is imperative that something is done to stop coral bleaching. While there is no one solution that will completely solve the problem, there are a number of options that can partially fix problems associated with coral bleaching. As coral bleaching is a multifaceted problem, the approach to combatting it must address the specifics and larger trends associated with it. The first is the problem of zooxanthellae loss. As previously stated, when coral initially expel their zooxanthellae, some are briefly able to intake substitutes to keep them from dying. One possible way to combat coral bleaching is through the reintroduction of other substitute symbionts that can begin restore coral reefs. The second associated problem is carbon emissions. While carbon emissions are difficult to curtail, a small, widespread tax on carbon producing energy could help to offset some of these emissions and fund research and symbiont reintroduction for coral reefs around the globe.

Key Facts:

- Coral Reefs have a global economic value of \$375 Billion annually
- Coral bleaching occurs when an external pressure stresses a coral into expelling the microorganisms that live inside of it. This causes coral to lose its color and eventually die.
- 93% of Australia's Great Barrier Reef has bleached. vii
- In 1998, the United States Government established the United States Coral Reef Task force, an interdepartmental organization formed to handle coral reefs in coastal communities. vii

Next Steps:

In order to discourage carbon dioxide emissions and fund bleaching research, a small additional sales tax should be added to all polluting energy sources, such as oil, natural gas, and coal (this list can be extended at the discretion of the Coral Reef Task Force). The funds obtained from the aforementioned tax would then be turned into a series of grants, to be applied for by scientists from all over the country. In order to be eligible for such a grant, an applicant would have to send a detailed description of his or her plan to research and reintroduce the necessary symbionts back into the coral reefs. The Coral Reef Task Force would also be responsible for reading these applications and choosing the recipients of the grants.

Endnotes:

Talking Points:

- The Federal Government must take steps to combat coral bleaching.
- The next phase is slowing the process of ocean acidification and reintroducing depleted symbionts back into coral ecosystems.
- Taxing fossil fuels and using the money to establish coral can accomplish both of these.

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The Endangered Species Act: An Outdated Listing System

By Jineet Patel, Major: Human Biology, Health and Society '18 , Email: jjp257@cornell.edu

The Endangered Species Act is important in that it recognizes the significance of biodiversity and protects it. However, the current listing system is outdated and doesn't allow for accurate and detailed representation of at-risk species. A new 5-tiered system would not only accomplish that but also allow for more specific plans to improve biodiversity.

Background:

The Endangered Species Act (ESA) was passed on December 28th, 1973 by President Nixon and was immediately one of the most significant pieces of environmental protection legislation ever passed. The law serves as a precedent in recognizing the importance of biodiversity and environmental well being, with little to no regard for economic returns . The primary goal of the legislation is to identify at-risk populations, prevent extinction, and implement a plan to safely recover those species.

Although the ESA is an important piece of legislation, there is concern from various parties of its efficiency and current effectiveness. The last major amendment was over 30 years ago and many opponents argue that the law has become ineffective at assessing at-risk species and recovering them . The current 2-tiered listing system (endangered or threatened) is outdated and needs to be innovated in order to allow for increased flexibility and more accurate targeting of at-risk populations. A new system would allow for more distinct and specific classification, which would enhance the listing process and improve how health and well being of a species is monitored over time. This is especially important as climate change continues to impact biodiversity across the country.

Policy Idea:

I propose a new 5-tiered system that radically changes how the overhead federal agencies such as the NOAA and FWS list species and develop plans to recover those species. The current system only relies on two classifications: endangered and threatened. This new system would take into account factors such as level of endangerment, population trends over time, changes in habitat geography, as well as changes in natural conditions.

Analysis:

The current system only has two statuses: endangered and threatened. Both have vague descriptions and the main difference between the two is endangered species are at risk for extinction while threatened species are at risk for endangerment. The problem here is that with only 2 designations, it is hard to track progress of species over time. Of all the species ever listed because of the ESA (~2000), only 28 species have been delisted, with only half for positive reasons . The problem is not that the ESA is not effective at improving conditions. In fact, 68% of listed species are stable or improving . The issue is that the current system does not allow for accurate measurement of progress over time.

A 5-tiered system would not only allow for tracking progress of species over time but it would also allow for additional factors such as trends and habitat geographical dispersion to weigh in. When a species is listed for the first time, it would enter under one of the designated tiers and progress upward or downwards would be determined over time. Also, with more distinction between species and their current status, this system would also allow for efficient use of resources as species are now specifically prioritized by threat level as well as the factors behind the threat level.

Next Steps:

The first step would be to consult with the federal agencies responsible, NOAA and FWS, to develop the concrete tiered system and how specific factors would play a role under each tier. As the ESA is federal law, a proposed amendment would have to be passed by Congress and ratified by the President. Before this can take place, a systematic analysis would be developed of all the current species and their designations under the new system. Further consultations with state agencies as well as environmental specialists would be needed to make accurate changes as necessary. The process would certainly be long but passing this amendment would only improve how the ESA protects the biodiversity of this country.

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- i https://en.wikipedia.org/wiki/Endangered_Species_Act
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- vi <https://www.nwf.org/~media/PDFs/Wildlife/esabythenumbers.ashx>
- vii <https://www.nwf.org/~media/PDFs/Wildlife/esabythenumbers.ashx>



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Regulating Deicers:

Clearing icy roads while protecting the environment

By Abhinav Vijay, Major: Environmental Science and Sustainability '17, Email: anv7@cornell.edu

Road salts should be considered point source pollutants and hence have avoided permitting regulations under the Clean Water Act. This has resulted in heavy runoff into water bodies, causing ecological damage.

Background and Context:

Road salt – sodium chloride- freezes at lower temperatures than water and when applied on roads, prevents freezing and helps existing ice melt faster. It is reported that more than 22 million tons of salt are applied to roads annually . Road deicing salts, widely applied in winter to roads and highways in North America, can be transported as runoff up to 170m from roads and have been shown to impact water quality and amphibians in wetlands . According to Marc Edwards, an expert on water treatment and corrosion at Virginia Tech, road salt is one of the main contributors to the high chlorine levels in the Flint River which caused corrosion in plumbing infrastructure eventually resulting in the high lead content . Chloride is not considered toxic to humans and hence is not listed as a pollutant by the Environmental Protection Agency. Furthermore chloride and sodium ions remain dissolved in water and are difficult to treat and can remain in groundwater and soil.

Key Facts:

- More than 22 million tons of salt are applied to roads annually.
- Road salt is one of the main contributors to the high chlorine levels in the Flint River.
- More than \$2.3 billion on snow and ice control operations spent by State and Federal agencies annually.
- EPA does not list road salts as point source pollutants and hence does not regulate acceptable levels.

Policy Idea:

The policy first requires that the EPA reclassify road salt as a point source pollution, which will result in regulation under the Clean Water Act. For the State of New York, a salt management plan should be enacted to manage the amount of salt being applied and regular monitoring of water bodies near roads for chloride content. Support for research into alternative, organic road salts must be supported as well.

Analysis:

The purpose of the policy proposal is to highlight the problems that excessive road salts can cause to both drinking water supply and the ecosystem around New York State. Kelly et al. 2008 found that concentrations of chloride and sodium increased by 1.5mg/L and 0.9mg/L per year respectively in Wappinger Creek and its watershed in Dutchess County, NY from 1986 to 2005. With the increased scrutiny around the country on lead contamination in water after the events in Flint, Michigan, attention must be given to potential corrosive agents like chloride in water. Winter road maintenance utilizes almost 20 percent of state department of transportation maintenance budgets nationally amounting to more than \$2.3 billion on snow and ice control operations spent by State and Federal agencies annually . Furthermore, a recent study by the U.S. Geological Survey found that the amount of road salt used on the nation's roads doubled from 1990 to 2011, while salt levels in northern streams has risen faster than the rate of normal urbanization. Communities around New York State would stand to benefit from increased water quality and reduced ecological damage from excessive road salt application.

Next Steps:

The lack of data needs to be addressed and the Department of Environmental Conservation (DEC) must engage with academic institutions and county agencies to identify how much road salt is entering water sources. Next, road salt management plans must be enacted at the county level to effectively manage road salt application. Overall the goal should be to reduce the amount of salt applied to roads, potentially cutting costs, as well transitioning towards more organic alternatives such as sugarcane, beet juice, or even cheese brine.

Talking Points:

- Road deicing salts, widely applied in winter to roads and highways in North America, can be transported as runoff up to 170m from roads.
- Winter road maintenance utilizes almost 20 percent of state department of transportation maintenance budgets nationally.
- There should be an incremental transition towards more organic alternatives such as sugarcane, beet juice, or even cheese brine.

End Notes:

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Stemming Marine Pollution: A Global Dilemma

By Jeffrey Kim, Major: Government '18, Email: jk2284@cornell.edu

While the oceans may seem like an unmovable force that mankind is unable to alter, they are vulnerable to human pollution and Congress must take a step towards ocean conservation.

Background:

Although marine pollution may seem like a modern phenomenon, it has been ongoing since the first modern humans. But while marine pollution has always existed, its effects have become increasingly severe over the past couple decades. Pollution has increased in magnitude and has become a threat to both human and nonhuman inhabitants. The rate of marine pollution started to increase after the industrial revolution and has advanced markedly after World War II as the type of pollution changed with the advent of synthetic materials.

Key Facts:

- While nature is able to deal with this problem to some extent, it is not enough. Bacteria in streams only removed 16% of the nitrogen from the fertilizers. The other 84% is taken up by algae and other microorganisms that cause eutrophication and dead zones
- Commercial fishing contributed \$31.5 billion to the US GDP and it is imperative that we be able sustain the marine life needed to maintain this level of income

Policy Idea:

With the increase of marine pollution, there has also been a rise in health problems as there has been an increase in the rates of cancer, birth defects, mental problems, and a loss of biodiversity. Animal and plant rates continue to stagger as corporations continue to dump large amounts of toxins into the water. Human-induced events like eutrophication contribute to this problem and cause massive, irreparable damage to life in the ocean. Although there have been actions to contain this global complication, these actions are insufficient to deter the problem and Congress must enact legislation for both the health of humans and non-humans.

Congress should address this issue by enacting legislation to cut the use of fertilizer by 30% by offering subsidies for substituting fertilizer with sustainable soil and fertilizer alternatives. Doing so would allow farmers to meet their quota without damaging their agricultural output too harshly. Those who choose to substitute their fertilizer usage and receive the subsidy to do would be able to benefit in the future due to this current endeavor.

Analysis:

Fertilizer run-off presents a major issue in terms of marine pollution as fertilizer that runs off stream causes coastal waters to become choked up due to the heavily fertilized algae that results from excess nitrogen. There are at least 405 "dead zones" world that result from this process. Every year in the US alone, farm animals produce 500 million tons of manure that farmers spray back into the field with an additional 55 million tons of synthetic fertilizer added on top of that. To put the vastness of dead zones into perspective, the largest dead zone in the US is as big as New Jersey.

While nature is able to deal with this problem to some extent, it is not enough. Bacteria in streams only removed 16% of the nitrogen from the fertilizers. The other 84% is taken up by algae and other microorganisms that cause eutrophication and dead zones, in which normal sea life is absent. Eutrophication from these dead zones lead to a loss of life as algae deplete the oxygen needed to sustain marine life and contribute to human illness. Therefore, enacting a policy to subsidize fertilizer alternatives has the benefit of easing human life, supporting biodiversity, and sustaining sea life necessary for the fishing industry to prosper. Commercial fishing contributed \$31.5 billion to the US GDP and it is imperative that we be able sustain the marine life needed to maintain this level of income.

Next Steps:

Policymakers in Congress should provide subsidies for fertilizer alternatives to benefit both the current environment and future agricultural output. By offering subsidies, farmers are more liable to make this change compared to advocating for a decrease in fertilizer use without any assistance. Subsidies for these alternatives should first be heavily marketed to medium-sized benefits that would be able to reap the benefits without too much immediate backlash like a larger farm would. Once these farms are able to produce agricultural crops more efficiently, the larger farms will soon follow as they will choose the route to gain more profit.

Talking Points:

- Enacting a policy to subsidize fertilizer alternatives has the benefit of easing human life, supporting biodiversity, and sustaining sea life necessary for the fishing industry to prosper
- Those who choose to substitute their fertilizer usage and receive the subsidy to do would be able to benefit in the future due to this current endeavor.
- Fertilizer run-off presents a major issue in terms of marine pollution as fertilizer that runs off stream causes coastal waters to become choked up due to the heavily fertilized algae that results from excess nitrogen

Endnotes:

- i "Pollution Issues." History. Web. 24 Apr. 2016.
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Mountaintop Removal Reclamation: Mitigating the Damage of Coal Mining in Appalachia

By Shashank Vura, Major: Undeclared '19 , Email: sv357@cornell.edu

In order to preserve areas of extreme biodiversity, preserve aquatic resources, and prevent damage to the health of local communities, the reclamation of sites affected by mountaintop removal mining must be implemented across Appalachia.

Background:

Since the 1960s, mountaintop removal mining has increased in frequency across the states of West Virginia, Tennessee, Kentucky, and Virginia. This method uses large amounts of explosive equipment to dislocate the soil and rock above coal deposits in the targeted mountain. Before this, all vegetation, including trees, are stripped. Although supporters, including mining companies, argue that this method is safer and more efficient than digging, and that it exists as an economic necessity to extract valuable Appalachian coal (extremely high in BTUs) and provide jobs for the disaffected region, many negative effects have been observed or attributed to mountaintop removal mining. Several recent studies have suggested that rates of birth defects and cancer are much higher in communities near affected sites, while mineral buildup in streams has also led to an increased frequency of fish injuries. In addition, many conservationists have argued that the amount of wildlife and trees lost leads to “biological impoverishment” which has affected more than five hundred mountains in the region. Most mountaintops affected by mining remain undeveloped, and after the extraction of coal, provide no benefit to the community. While much of the damage caused by mountaintop removal mining cannot be undone, some damage can likely be mitigated by instituting reclamation projects in affected areas, facilitating the restoration of lost forests through the large-scale reintroduction of native plants lost by these activities.

Key Facts:

- A 2011 CNN/ORC opinion poll showed 57% of all American respondents opposed coal mining, although geographic subsamples were unavailable.
- 366, or 89% of all mountaintops stripped by mining have been put to no commercial use at all following the extraction of coal.
- Even accounting for socioeconomic factors, the rates of incidence of six major genetic defects were much higher in areas located near areas of mountaintop removal mining.
- Valley fills of displaced debris from mountaintop removal mining have buried 2,000 streams and contaminated many more.

Policy Idea:

The Environmental Protection Agency, in conjunction with local and state governments, environmental conservation groups, and energy companies, must initiate a large-scale program across the Appalachian region to allow for the reclamation by native vegetation and trees of sites affected by mountaintop removal mining that have since not been put to development. The goal of this effort should be to preserve the rich deciduous forests of the region for future generations, maintain biodiversity, and prevent further collateral damage from such mining.

Analysis:

In the past, mountaintop reclamation projects have often involved the addition of non-native grasses (likely to save costs and time) for aesthetic purposes. However, this can inhibit the revival of native plants. As researchers from Kentucky State University have discovered, the restoration of original topsoil, followed by the planting of formerly extant vegetation can be extremely successful in setting forth the eventual ecological succession for the return of forests. Through this process, instead of leaving the stripped areas to devolve into grassy slopes, some semblance of their former state can be eventually achieved.

Although Natural Resources Defense Council has identified viable commercial sources for all but eighteen sites of mountaintop removal reclamation, including agriculture, recreation, or residential activities, very little development has been observed at all in these areas. Some residents have characterized the practice of mining companies to often leave behind these areas to waste, despite their location in some of the poorest areas of the country, as akin to turning them into “sacrificial lambs” for other endeavors. In the absence of viable alternative uses for these areas, or at least the will to enforce them, the logical conclusion would be to begin the reclamation project in haste instead of allowing this area to remain as unused land. Thus future generations shall be able to appreciate the rich biodiversity their ancestors knew.

Next Steps:

First, the regulatory loophole that allows coal mining companies to avoid reclamation or environmental restoration if they can demonstrate a potential use of the stripped area for commercial purposes post-mining must be removed. Then, the federal government must form a task force headed by the Environmental Protection Agency, featuring representatives from the state governments of Kentucky, Tennessee, Virginia, and West Virginia, along with energy companies, local civic groups, scientists, and environmental organizations in order to create an action plan for the reclamation of affected areas as soon as feasible. Following this, federal and state appropriations, with the support of private donations, must fund this process upon its inception.

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Mitigating U.S Carbon Emissions: Implementing Energy Efficient Lights

By Daniel Huynh Major: Biology & Society Year '19 Email: djh324@cornell.edu

A federal mandate to state government to devise a plan to install LED lighting in all public buildings and government-owned facilities can mitigate atmospheric CO₂ as well as energy consumption. LED lights are overall use less energy and lasts longer than incandescent light bulbs and compact fluorescent light bulbs (CFLs). Despite LED lights being costlier than its counterparts, the government can save more money in the long run.

Background:

On August 3rd of 2015, the EPA issued the Clean Power Plan 6. This plan is a proposal that aims to put the nation on a track to heavily reduce the amount of pollution and carbon gas emitted from power plants. Currently, concentrations of carbon have peaked the charts at 400 parts per million 7. Even with the EPA's new policy, the dangers of skyrocketing concentrations of carbon in our atmosphere pose a public health threat not only to humans but also to the other organisms. According to a study done by Stanford scientists 8, an elevation in CO₂ increases the risks of respiratory diseases such as asthma and emphysema. As a population, people exacerbate this problem by their dependent on power plants to supply energy to their homes.

Power plants resort to cheap sources of energy in order to supply and meet these colossal demands. In 2015, carbon emissions from the electric power sector accounted for 37% of the U.S energy-related emissions 2. 70% of the carbon emissions in power plants are due to the combustion of coal that releases and expels toxins and carbon gas into the air.

This issue exists partly because of high demands of electricity needed to allow everyday basic necessity in a person's life. A significant amount of electricity is used to power homes, buildings, and street lighting; 8% of energy related carbon emissions are due to modern lighting 2. Lighting is an essential source that allows people to function during the night when the sun goes down.

Policy Idea:

The Federal government should mandate states to devise a project to replace current sources of lighting with LED based lighting. This mandate would include grants given to states to devise a plan that will have a great impact in urban areas with a dense population of people. This plan is targeted to these areas due to the increase usage of energy associated with a big population per a square mile. Replacement of current lighting with LED lighting would affect government-controlled buildings and publically owned commons such as street lamps along a side-walk. An incentive for this switch is that with the wide usage of energy efficient lighting allows states to become more fiscally efficient. An example of this efficiency is that state governments would have to allocate less funding for the maintenance of lights because they last longer and use less watts of energy. The overall plan would help alleviate the high demands of electricity in densely populated areas as well as decrease the output of carbon in the long run.

Analysis:

The cost of LED lights is the main barrier that can prevent many homeowners as well as the government from using it as a main source of lighting. However, the benefits of installing these lights outweigh the higher cost of LED lights compared to CFL and incandescent light bulbs. Over the course of 5 years, the cost of LED light bulbs will total up to \$36 compared to \$90 of incandescent light bulbs and \$26 of CFLs 4. Many may prefer

Key Facts:

- 8% of the U.S total carbon emission is due to the use of these produced energies to supply electricity to modern lighting.
- LED lights overall consume fewer kiloWatts/hr which helps reduce overall carbon emissions.
- By 2027, a widespread use of LED lights could save 44 electrical large power plants about 1000 megawatts each – that is the equivalent of saving more than \$30 billion dollars at today's electricity prices (energy.gov).
- In 12 years, a person can save about \$373 per a unit of lights when switching from a CFL to an LED

to buy CFLs because they are cheaper than LED light bulbs. In light of the cost difference between LED light bulbs and CFLs, LEDs are 40% more efficient and lasts about 10 times longer than CFLs. Most importantly, in addition to the LED's high efficiency, it uses less energy. LED's will consume about 4-5 watts compared to 9-12 watts of energy in CFL's 1.

According to an energy savings calculator 5 , the cost of replacing of CFLs was calculated. A lifespan of an LED lighting when used for about 12 hours a day is around 11 years. The cost of maintaining CFL's in

an 11 year period showed that a unit of CFLs have to be replaced 6 times. The total cost of CFLs in 11 years is about \$479 compared to \$106 in implementing LEDs. The total saving is \$373 in 11 years. This is the saving for 1 unit of lights. If all lighting in a government own building were replaced with LEDs it can be estimated the cost of providing lighting can be modeled by \$373 times the number of light units in a given building.

It is important to note that by implementing this plan to replace all public commons and government-controlled building with LED lights can heavily decrease the consumption of electricity. In addition, since LED lights are more energy efficient and durable compared to its counterparts, it will cost less in the long run and save federal and state government money in especially large buildings. . Most importantly, using LED lights cuts back on carbon output.

Talking Points:

- LED light bulbs are overall more energy efficient and can save families and individuals more money in the long run than traditional light bulbs such as CFLs and incandescent light bulbs.
- Implementing a funded plan to mandate local and state government to replace all publically owned buildings, parks, and government facilities with LED lights will dramatically save the state money as well as drastically reduce overall carbon emissions.
- On a next level approach, a contract between the government and electric companies like NStar to provide LED lighting to public housing as well can also reduce electricity usage in low income communities.

Next Steps:

The next step for this policy proposal lies with the Department of Conservation. Administrators should address the executive Cuomo administration and show, just as it did in June, that fracking processes present harmful threats to both the environment and the public. The Department of Conservation must compile documentation of the known chemicals in fracking wastewater as well as their associated health and environmental impact. In order to further bolster its claims, the department must survey the land and water bodies adjacent to roads subject to fracking wastewater spreading in order to show that the same chemicals are in fact present in elevated quantities. With this information, the Department of Conservation will have a strong case to move forward with a ban on the practice of road spreading with fracking wastewater.

Endnotes:

i "Eartheasy." Energy-Efficient Lighting: LED & CFL Bulb Information, including Where to Buy. Accessed April 14, 2016. http://eartheasy.com/live_energysaver_lighting.htm.

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Nuclear Disasters:

Encouraging Research for Radiation Measurements

By Sohyeon (Catherine) Hwang, Major: Government '18, Email: sh928@cornell.edu

By developing methods of measuring radiation, the United States can understand better the effects of nuclear energy and calculate costs and benefits.

Background:

The 2011 Fukushima Daiichi nuclear disaster is one of the freshest instances of nuclear failure in recent history, bringing back fears of Chernobyl and other radiation disasters. To date, the nuclear meltdown at Fukushima has not resulted in any known cases of death or radiation sickness, but the effects remain nonetheless.

One of the immediate concerns of the meltdown was the radioactive material seeping into the environment and affecting wildlife. A recent article by US News discussed the serious damage to the wildlife in Chernobyl and Fukushima, refuting earlier theoretical speculations that

the nuclear meltdown had actually helped wildlife by reducing human activity. The health effects extend to humans as well. Medical tests (from 2014) noted 57 of 300,000 children near the plant had thyroid cancer, often associated with radiation exposure—an alarmingly high number compared to the 1.7 per 100,000 in Japanese teens annually. Because effects of radiation are somewhat staggered, the numbers could rise, though the higher rates cannot be attributed to the Fukushima disaster necessarily. Regardless, from environmental contamination and health effects to displacement and social problems following such disasters, nuclear plants have high risks that are often said to not be covered by their benefits.

One problem is that the effects are not immediately noticed and are not measured, so great uncertainty about radioactivity and nuclear energy remains. It becomes clear that further research and technological innovation is necessary to make nuclear energy more efficient and cost-effective and to better understand the effects of nuclear energy.

Policy Idea:

The government will implement a program that acts as a forum of open-source development, bringing the power of crowd-sourcing and the ideas of the masses to the government. The government will allow people and/or teams to submit and share ideas and technologies, defining problems they see and solutions to the various problems/issues that have been raised. In a competition-style, the government program will review the possible projects and select up to three to implement (i.e. fund). This can be expanded to multiple different projects other than nuclear issues.

Analysis:

The core part of this policy is embracing the power of crowd-sourcing and modern communication technologies. One of the greatest failures of design is failing to understand the problem properly from the point of view of the people who are directly affected by it. The idea that a “foreign” agent—one that is not affected by the outcomes or designs—can swoop in and design a solution is outdated and can often lead to more problems. Allowing for a free and open platform of development that can vie for immediate government support or funding (assuming that the timeline is fast and responsive) can increase government responsiveness to events and help develop technologies that are relevant from the point of view of the people rather than bureaucratic officials who may not have the same experiences as the people affected by a technology. For example, during Fukushima, to address concerns about radiation, a crowdsourced Geiger counter (a device which measures radiation levels) collected the most data, quickly, accurately, and sooner than other measurements. Government measurements were actually found to be unreliable. However, the crowdsourced device, while being implemented a mere week after the events of Fukushima, lacked critical information about the first few days following the disaster.

Key Facts:

- Nuclear power is waning, but the costs are as high as ever ; the effects of nuclear power should be measured to maintain stable, reliable data and further brainstorming into better understanding nuclear power should be done
- Government support in funding seed projects and research ideas in science and technology are essential and have been shown to bring great long-term returns
- Crowdsourcing ideas is less costly and more open, allowing for transparency and greater public engagement. At the core of crowdsourcing is the collaborative spirit of developing ideas by people with new perspectives.

ways of measuring the possible effects, especially nuclear radiation which is arguably of greatest concern, must be implemented. The Geiger counter already exists but other methods of measuring radiation and the pros and cons of nuclear energy should be brainstormed.

This crowdsourcing-project program in general will help prepare for situations and address problems that society, rather than the government, perceives. This not only increases government visibility and public participation, but it also supports innovation, research and technological development, encouraging the many innovators and creative makers in the United States. Government support of technological development is obvious when one considers the value of technology in the economy. A 2012 study found that the revenue generated by projects originating from seed research backed by the government totaled about \$500 billion.

In developing the program, however, the normative nature of crowdsourcing must be considered. The outcomes of crowdsourcing largely depend on the motivations and behavior of the participating masses. It is obvious that there may be ideas developed that are controversial, impossible, or simply outside the focus of the project mission; there may also be ideas that are meant to provoke others rather than contribute to development. Furthermore, there remain concerns with privacy and protection rights. Guidelines, rights, and other important information to protect users and ideas must be delineated and enforced, which may be difficult in an open source platform. Moreover, there remains the question of what kind of information might be shared by the government in order to contribute to project development, and how sensitive information might be protected. Regardless, if implemented correctly, in general such a program will increase innovation, research, and public engagement, and have long-term returns for the lost costs of crowdsourcing, which could make this program incredibly cost-effective.

Next Steps:

The next step for this policy proposal lies with the Department of Conservation. Administrators should address the executive Cuomo administration and show, just as it did in June, that fracking processes present harmful threats to both the environment and the public. The Department of Conservation must compile documentation of the known chemicals in fracking wastewater as well as their associated health and environmental impact. In order to further bolster its claims, the department must survey the land and water bodies adjacent to roads subject to fracking wastewater spreading in order to show that the same chemicals are in fact present in elevated quantities. With this information, the Department of Conservation will have a strong case to move forward with a ban on the practice of road spreading with fracking wastewater.

Talking Points:

- LED light bulbs are overall more energy efficient and can save families and individuals more money in the long run than traditional light bulbs such as CFLs and incandescent light bulbs.
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- On a next level approach, a contract between the government and electric companies like NStar to provide LED lighting to public housing as well can also reduce electricity usage in low income communities.

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Meet Our Energy and Environmental Policy Center



Ethan Skelskie

Ethan is a sophomore studying History. Apart from Cornell Roosevelt Institute, he is involved in Cornell Historical Society, Cornell Concert Commission, Cornell Rock and Roll Club, and Zeta Psi fraternity. This is his first semester with the Cornell Roosevelt Institute.



Jineet Patel

Jineet Patel is a sophomore majoring in Human Biology, Health and Society and minoring in Infectious Disease Biology and Policy Analysis and Management. Outside of medicine and biology, his main interests include the environmental impact of human actions, specifically global climate change, and the development and usage of smart energy sources such as nuclear and renewable energies.



Abhinav Vijay

Abhinav Vijay is a junior in the College of Agriculture and Life Sciences, majoring in Environmental Sciences and Sustainability. Besides the Roosevelt Institute, Abhinav works at the Blossy Lab in the Department of Natural Resources, contributing to research on invasive species in New York State. He is also on the Eboard of the Cornell Chapter of the Wildlife Society.



Daniel Huynh

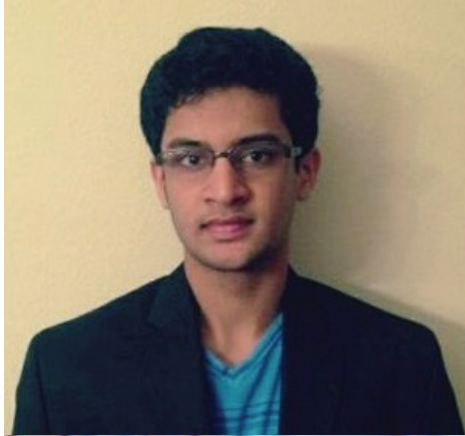
Daniel Huynh is currently a freshman majoring in Biology & Society. Originally from a city, coming to Cornell meant that I would be living in a totally unique and unfamiliar environment. During my time here, I am looking forward to studying health policy, bioethics, and society.



Sohyeon Hwang

Catherine Hwang is a sophomore student in Government and Information Science. She is currently involved in the Cornell International Affairs Society and the Roosevelt Institute for Public Policy and enjoys research. She is also an active brother of Alpha Phi Omega, the national service fraternity, and writes for the Cornell Daily Sun.

Meet Our Energy and Environmental Policy Center



Shashank Vura

Shashank Vura is a freshman in the College of Arts and Sciences. Originally from Houston, Texas, he has not yet made up his mind on what major he wants to pursue, but eventually hopes to work in the field of law. With regard to policy, he possesses a particular interest in conservation biology and other environmental issues.



Jeffrey Kim

Jeffrey Kim is a sophomore majoring in Government. This is his first semester in the Roosevelt Institute



Veronica Dickson

Veronica Dickson is an undergraduate sophomore in the Industrial and Labor Relations School at Cornell University, and is also pursuing a minor in China and Asia-Pacific Studies. On campus, she is the President of Hearsay A Cappella, an all-female group, and she has a weekly radio show on Fridays at CornellRadio.com. Outside of school, she works for the Roosevelt Institute national staff as the External Engagement Coordinator for the Lower Northeast.



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V. Center for Foreign Policy

“In every country the people themselves are more peaceably and liberally inclined than their governments.”
-Franklin D. Roosevelt

Director

Frances Yang ‘17

Analysts

Christopher Hamlin ‘16

Pulkit Kashyap ‘18

Tanisha Mohapatra ‘18

Dhruv Kumar ‘19

Jackson Cherner ‘18

Shivani Parikh ‘19

Letter from the Policy Director

“Freedom of Navigation: Sino-American Mutual Distrust and Increasing Risk of Military Conflict”

Christopher Hamlin, ‘16

While in the last decade, the U.S. and China have achieved considerable economic and diplomatic integration, they still have an immense likelihood of accidental military conflict. The U.S. must take a dual-pronged approach to developing confidence building and risk reduction mechanisms with Beijing in the military and diplomatic spheres.

“Invest in Energy: Funding the TAPI Pipeline”

Dhruv Kumar, ‘18

Due to unclear funding sources as a result of security issues, the TAPI natural gas pipeline traveling from Turkmenistan to India needs funding assistance from Afghanistan, Pakistan, and India.

“En Route for a Drought: The Middle East’s Upcoming Water Crisis”

Pulkit Kashyap ‘18

In the interest of national security, the United States should adapt the Climate Action Plan to include a focus on resolving water mismanagement and deforestation in the Middle East and North Africa (MENA) through recommendations and investments in infrastructure.

“Japan’s Emerging International Presence and Military Growth”

Jackson Cherner, ‘18

After years of pacifism and isolation, Japan’s conservative government is trying to grasp its emerging stance in the global community. In order to cope with the altering geo-political domain, combined with Japan’s economic growth, Japan should assume a realist international policy and strong coalitions with western nations.

“Multilateral Agreements: Combating a Dangerous Nuclear Arms Race in South Asia”

Tanisha Mohapatra, ‘18

As the world talks about nuclear non-proliferation, South Asia is emerging as a hotbed of discussion regarding the lack of nuclear disarmament policies. India and Pakistan should be engaged in multilateral nuclear normalization agreements to ensure accountability in their nuclear arsenal.

“Intergovernmental Cooperation & Justice: Participating in the International Criminal Court”

Shivani Parikh, ‘19

By ratifying the Rome Statute and joining the ICC, the U.S. can aid in prosecuting those guilty of crimes of genocide, crimes against humanity, and war crimes. Participation will promote multilateralism, international partnership, and validate institutions that preserve natural law.

Letter from the Director

Dear Readers,

It is with great pleasure that I share the tenth issue of *Looking Ahead: The Cornell Roosevelt Institute Policy Journal* by the Center for Foreign Policy and International Affairs. The following journal includes four policy proposals, each of which was researched, developed, and composed by an analyst with careful consideration and hard work. Focusing on issues spanning from institutional reform, national security, and sustainable technological transformation, each analyst sheds valuable insight into how the state of today's global affairs might be improved and implemented.

I hope you are as thoroughly impressed by their work as I am.

Sincerely,

Frances Yang
Policy Analysis & Management (CHE, '17)
Director, Center for Foreign Policy and International Affairs



Freedom of Navigation: Sino-American Distrust & Risk of Military Conflict

By Chris Hamlin, Major: Major: China & Asia Pacific Studies '16, Email: crh84@cornell.edu

While in the last decade, the U.S. and China have achieved considerable economic and diplomatic integration, they still have an immense likelihood of accidental military conflict. The U.S. must take a dual-pronged approach to developing confidence building and risk reduction mechanisms with Beijing in the military and diplomatic spheres.

History:

While in the last decade, the U.S. and China have achieved considerable economic and diplomatic integration, they still have an immense likelihood of accidental military conflict. Unintentional collision caused by the operational miscalculation of two military vessels at sea is not a new issue. In 2001, one such collision off the southern coast of China between a U.S. reconnaissance aircraft and a Chinese military jet escalated into a diplomatic crisis after the Chinese pilot was killed and the American service-members were detained for eleven days.¹ The incident was representative of a key international legal disagreement in the Sino-American bilateral relationship. Namely, while China maintains that the United Nations Convention on the Law of the Sea (UNCLOS) allows nations to regulate all foreign military surveillance within 200 nautical miles from its coast,² the U.S. contends that lawful freedom of navigation includes military surveillance.¹ Thus, despite the two nations adopting numerous non-binding military agreements since the 2001 incident to reduce the risk of operational miscalculation, they have been ineffective in preventing more than six similar near-collisions over the past decade.³ The conjunction of an ever greater chance of military miscalculation and inadequate risk reduction mechanisms has created an operational landscape in which crisis escalation is increasingly becoming an inevitability.

Key Facts:

- There have been at least six incidents since 2001, in which Chinese aircraft and ships harassed U.S. naval vessels
- In the past year, China has developed missile capabilities, such as the DF-21 anti-aircraft missile, which are specifically conditioned to U.S. Pacific military force platforms
- Over the past 15 years, China has developed the largest naval fleet in Asia, which is increasingly equipped with advanced anti-ship and anti-air radar and sensors.

The Policy Idea:

The U.S. must take a dual-pronged approach to developing confidence building and risk reduction mechanisms with Beijing in the military and diplomatic spheres. First, Washington must pressure Beijing to accede to a binding joint maritime operational conduct agreement that creates tangible consequences for defection. Second, the U.S. must be more transparent about its military activities in China's EEZ to build political trust regarding American foreign policy strategic intentions, and alleviate the concerns that drive Beijing to take aggressive actions to deter U.S. operations.

Analysis:

In the past, non-binding bilateral and multi-lateral maritime agreements have done little to restrain assertive Chinese military force posture if there was no immediate threat of reprisal. However, China has not been completely unwilling to negotiate legally binding agreements. The U.S. can use its increasing leverage within ASEAN to put pressure on China to adopt a binding agreement. Moreover, the U.S. must make clear the costs of aggressive Chinese deterrence maneuvers to the bilateral relationship going forward by making credible threats to levy economic sanctions against Beijing conditioned on continued cooperative military encounters. Simultaneously, the U.S. can entice China to both adopt the agreement and adhere to it by committing to some level of conditional future U.S. force reduction.

With regard to confidence building mechanisms, the U.S. must provide adequate reassurance in coordination with the deterrence that its increased force presence signals. If the U.S. were to begin providing adequate notifi-

cation of its surveillance and freedom of navigation operations, it would cultivate greater military transparency, and provide for more prudent military responses that have lower likelihood of rapid escalation. Furthermore, if the U.S. makes clear commitments not to conduct military patrols or large-scale military exercises near maritime areas that Beijing considers sensitive, especially during significant Chinese political circumstances, this pledge could have beneficial outcomes for Beijing's willingness to cooperate in the maritime realm. Namely, it will help Beijing shore up domestic support for its foreign policy decision making, allowing Chinese leaders to be more flexible in areas such as limited maritime surveillance.

Next Steps:

The U.S. should discontinue further military surveillance and patrols in China's EEZ as it seeks to conduct high-level consultations with Chinese President Xi Jinping, and People's Liberation Army Navy Commander Wu Shengli over the next few months. This will allow for a stabilized security landscape for the duration of the negotiations. Through these talks, Washington must delineate its commitment to resume its force presence, and make credible promises to implement the aforementioned strategies. Most importantly, the U.S. and China must clearly delineate the military actions at sea and in airspace that will provoke more assertive diplomatic and military responses, so that those lines are not crossed.

Talking Points:

- A 2014 military-to-military near collision was almost identical to the 2001 aircraft collision, demonstrating the need for more effective codes of operational conduct.
- Washington and Beijing's increased military presence risks a modern day security dilemma in which both parties rapidly increase their force posture and weapons capabilities to deter their adversary's future action.
- China is currently in the final stages of consultation with ASEAN nations on a binding Code of Conduct for regional interstate maritime cooperative action, and might be willing to negotiate a similarly binding agreement with the U.S.

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Invest in Energy: Funding the TAPI Pipeline

By Dhruv Kumar, Majors: Economics and Government (A&S '19) Email: dk649@cornell.edu

Due to unclear funding sources as a result of security issues, the TAPI natural gas pipeline traveling from Turkmenistan to India needs funding assistance from Afghanistan, Pakistan, and India.

History:

In December 2015, construction on the Turkmenistan-Afghanistan-Pakistan-India (TAPI) natural gas pipeline officially began. The pipeline will transport natural gas from a very large but relatively unknown gas field in Turkmenistan to the other three countries. However, due to security concerns, some groups are apprehensive about its construction. They are worried that the volatile nature of the region poses a threat to the project. As the pipeline runs directly through militant-controlled areas, if an attack were to occur it could cause significant investments to go to waste, and create major problems for recipients of the natural gas. Due to these concerns, there is a lack of clarity about the project's funding sources. Currently, the project has some funding from Turkmenistan's state gas firm, but that will take up one third of the nation's entire budget and may not be sufficient to cover all of the costs. No other country nor major oil company has committed to funding this project, despite the fact that it would bring extensive benefits to the region. This fact is puzzling as India is one of the fastest-growing countries economically in the world, and has a history of large public spending projects. Despite this, even India has not yet committed any funds to the project.

Key Facts:

- In 2014 Thermal capacities increased 5.3%. In contrast, wind and nuclear power capacities grew by over 21%.⁴
- Although China has more wind power capacity than any other single country, it trails the United States in wind energy generation.¹¹
- The wind energy curtailed in 2013 alone could power both the cities of Beijing and Tianjin combined for well over a month.
- In 2013, there were 193 approved pilot projects for smart cities in China.
- Between 2014 and 2020, China will account for with 48% of global transmission lines additions.⁵

The Policy Idea:

India, Pakistan, and Afghanistan should all contribute funding for the TAPI natural gas pipeline in South Asia to take the burden off of Turkmenistan and ensure completion of the project. The respective amounts of funding should be decided by the Asian Development Bank, which currently oversees the project, to be proportional to the size of each country's GDP as well as the benefits those countries would receive as a result of the pipeline. The funding, which would total to \$10 billion for the entire project, would go to ensure that the pipeline is completed, and done so by the end of 2019.

Analysis:

If another source of funding is not found, the project will not be completed. It is clear that the benefits of funding the TAPI pipeline greatly outweigh the costs for every country involved. Firstly, Afghanistan aims to use its strategic geographic location to reestablish its dominance as a transit corridor. With TAPI, the goal will have been accomplished: Afghanistan is set to make \$400 million³ annually in transit fees alone – a rate of revenue that would eventually surpass any cost.

Secondly, Pakistan has a national electricity deficit of 8500 Megawatts. With this new gas supply, more electricity can be generated. Due to Pakistan's recent power shortages, the country's largest textile exporters have been severely limited in production and exportation, causing great harm to the economy. With the power problem solved, the economy would be strengthened. Additionally, Pakistan would receive about \$200-\$250 million in transit fees from India annually, further boosting its finances.

Regarding India, the country only has about 95% of the power that it needs across the country. TAPI will also create incentives to forge stronger ties with its historical enemy, Pakistan. Therefore, it becomes clear that for each country, the investments into the pipeline would easily be earned back through direct revenue, the elimina-

tion of costs, or both. Since the project would not be able to be completed without funding from the other countries, an investment in the pipeline would be highly beneficial to each nation, making this a feasible proposal.

Next Steps:

For each country, the natural gas lobby should be a key proponent of this policy. They are the first and foremost beneficiaries of this pipeline, and have the resources necessary to lobby politicians. The governments must be made aware of the numerous benefits listed above that their countries will receive if an investment is made to complete the project; without those investments, the TAPI pipeline will not be completed and the benefits will not be reaped. Once governments are aware of TAPI's benefits, politicians must write legislation that would allocate various amounts of funding to the completion of the pipeline. If enough of those countries' politicians know about what the pipeline will bring, the legislation will pass and the project will be completed well and in a timely manner.

Talking Points:

- Both Afghanistan and Pakistan would receive hundreds of millions of dollars in transit fees as a result of the pipeline traveling through their territory.
- Both Pakistan and India suffer from severe power shortages that the pipeline would be able to eliminate.
- The project is supported³ by both government supporters and opponents in Afghanistan as a positive step toward progress, allowing Afghan politicians to work on serious issues such as terrorism and violence.
- Despite the fact that construction has already started, the sources of funding on the project are unclear and would take up one-third of Turkmenistan's budget.

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En Route for a Drought: The Middle East's Upcoming Water

By Pulkit Kashyap, Majors: Computer Science and Economics '18, Email: pk374@cornell.edu

The future of the WHO hangs in the balance in light of operational failures and ongoing criticism. A multi-faceted reform approach is necessary and ensuring sustainable financing is part of the answer. Autonomous budgeting in the form of non-discretionary spending will give the agency leverage to reestablish its leadership in international health.

History:

Scientists from the Institute for Atmospheric and Climate Science in Zurich have stated that they expect intolerable conditions for humans living in the MENA region during the next century brought on by extreme combinations of high temperatures and humidity, some say that temperatures may rise as high as 140 degrees Fahrenheit. This predicament is projected to lead to the desertification of the Middle East beginning with a decline in rainfall and massive loss of vegetation. Furthermore, extreme weather such as droughts will become more prominent. Already, a NASA study has found that a drought affecting the Middle East for the past decade was the worst drought in the past 900 years. Lesser droughts have been claimed as causes for the Syrian Civil War.

Key Facts:

- By 2100, if left unchecked, the Middle East will reach temperatures as high as 140 degrees Fahrenheit. This high of 140 will not only kill off the weak and elderly, but also push further the Middle East's current desertification process
- Water is a vital resource to the economies of many Middle Eastern nations with 85% of its usage being for the agricultural sector.
- As many as 100 million people may become environmental migrants by 2025 due to water related stressors

Given that 85% of the Middle East's water is used on agriculture, desertification coupled with massive water mismanagement will adversely impact as many as 100 million people by 2025 if a recent World Bank report is correct. In 2003, the Pentagon stated its belief that such a series of events should be considered a national security crisis because of the problems that may ensue. For example, proposed issues include regime change, civil war, and environmental migration in numbers never before seen.

The Policy Idea:

While the Obama Administration's Climate Action Plan has some measures for international climate change that handle issues such as free trade, no current policy has a set focus specifically on the water crisis in the Middle East. Therefore, it is imperative for the United States to adapt its Global Climate Change policy by recommending MENA region nations better water management techniques including desalination and sustainable farming, but by also providing investment for the future through techniques such as reforestation.

Analysis:

Current United States Global Climate Change Policy focuses on the adverse impacts of Climate Change on South America and Africa and how to solve them using techniques such as reforestation and sustainable agriculture. The current rationale for pursuing reforestation is that it not only addresses physical water scarcity issues, but also diminish desertification in the long run.

The level of water scarcity in different regions varying in color based on whether the scarcity is economically driven (physical water supply is high but actual resource assignment is poor) or physically driven (there just isn't any water). The MENA region is distinct from the rest of non-US territory because it either lacks water altogether or at least 60% of its water resources have withdrawn. While the United States current rationale for reforestation is completely valid, perhaps the goals would be best met through reforestation initiatives in the MENA re-

gion as this region in particular has more physical water scarcity issues than any other current priority region.

Changes to the Climate Action Plan would also include additional recommendations for foreign partners in the MENA region with salt-water access to adopt desalination as an alternative source to physical scarcity. As a counter argument to desalination many organizations, including the water project, have noted the detrimental impact it can have to the surrounding ecosystem through impingement and entrainment. This is a valid argument and can be addressed by encouraging MENA region parties who are adopting or have already adopted desalination for use. Subsurface intakes are a known solution to impingement and entrainment and will help limit damage to the surrounding ecosystem while also lowering long-term operating costs.

Talking Points:

- We don't need to look to 2100 to see what the negative impacts of waiting too long on this issue are. The Syrian Civil War is already being claimed by many as a first example of the troubles to come
- If nothing is done, expect mass exoduses of displaced peoples searching for jobs and food as their home nations crumble due to desertification. Furthermore, expect negative economic impacts to major food exporting countries as their primary customers (the Middle East) are no longer able to purchase (because they no longer exist!)
- Encouraging sustainable farming, reforestation, and desalination will not only help MENA region nations in the long run, but also help them cut costs and become more economically efficient in the short run.

Next Steps:

The World Health Organization should begin to make structural changes in their constitution and fundraising approach to tackle these two reforms. Reaching out to a more diverse donor base will require a refined approach through its marketing and outreach team. Engaging in social media platforms and improving its public image will allow the WHO to reach far more donors around the world and capture their interest. In order to increase member dues, the WHO will have to go through a structural approach by reforming its regulations through the organization's Constitution. The due increase will have to be approved by voting members in the WHA and EB of the WHO. Leaders will have to mobilize themselves and spearhead the issue in order to successfully make the policy change.

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Japan's Emerging International Presence and Military Growth

By Jackson Cherner Major: Government (A&S '18) Email: jcc196@cornell.edu

After years of pacifism and isolation, Japan's conservative government is trying to grasp its emerging stance in the global community. In order to cope with the altering geo-political domain, combined with Japan's economic growth, Japan should assume a realist international policy and strong coalitions with western nations.

History:

After WWII, Japan was reduced to a minor role in international affairs after a US occupation left their country with rigid restrictions on the growth of their military. Relegated to isolation, Japan remained silent throughout the Cold War, as the United States and Soviet Union endured a grueling arms race. However, after the collapse of the U.S.S.R., the US remained the sole hegemon in the world, thrown into the role as an international policeman. Collective security through UN coalitions

went out the window as the US pursued unilateral action in international affairs, much to the scrutiny of their allies. Japan's foreign policy is now adopting a realist approach, adjusting for the increases in Chinese power and the emerging threat of North Korean military hostility. Japan, now ready to prominently enter the international realm, has pushed aside its post-war pacifism and accepted the terms of its survival. Prime Minister Abe has been the primary proponent of institutional change in the Japanese government since his re-election in 2012, striving for openness and interventionist policies. He has granted a national security council to oversee the country defense plans, and has eased Japan back into arms trading and technology co-ops with western nations. His biggest achievement, which also received tremendous criticism, was bypassing Japan's longstanding opposition to collective self-defense and allowing Japan's troops to respond to threats against allies on foreign soil.

Key Facts:

- China has gone unchecked in their expansion in the South China Seas since early 2014, constructing bases and airstrips through artificial islands.
- The Philippines and Australia have challenged the legitimacy of Chinese claims, but no formal motion by any international body of law has challenged Chinese domination of the region
- -A formal naval coalition between Japan and the United States would force China to reduce military operations and created a contested zone

The Policy Idea:

The changing geopolitical environment of Southeast Asia has provoked Japan to take new measures to ensure their national security and become an active participant in restricting the expansion of Chinese domination in the region, both through military and economic measures. Therefore, I advise that the US strongly pursue a naval coalition with Japan at the helm, which has advocated for greater naval buildup and military spending since the election of Prime Minister Abe and the expansion of Chinese naval operations in the South China Sea. I would also propose a shared costs program to reduce the financial pressure on the Japanese government to maintain US bases on their soil, and devote more federal funds towards the construction of their own domestic bases.

Analysis:

A US-Japanese coalition would restore the military balance in the region against an impending Chinese domination and their naval expansion to nearby countries. According to Admiral Harris, the Chief of the United States Naval Command in the Pacific, China is looking to "bully smaller nations through intimidation and coercion," since no allies to this date have made a substantial stand against Chinese patrols and submarines docking in their ports. Harris claimed that combined naval exercises with Japan, as well as Australia and the Philippines, would instruct local naval forces on how to counter Chinese operations as well as give the United States direct intelligence on their troop movements. In addition, Japan would be reintegrated into naval patrols of the South China Seas, where the Chinese are engaged in building artificial islands to house personnel and air bases. (endnote) Japan would agree to this coalition due to the realist ideology adopted by Prime Minister Abe, whose conservative appeal has led to increased military spending and naval development. Japan would be interested in possible bilateral and trilateral deals to limit the control of Chinese navies on their soil, as well as ensure that the United States would come to their aid in the event of a ballistic attack from North Korea or anyone manipulated by Beijing.

Next Steps:

In order for the coalition to be manageable and cost-effective, Japan and the U.S. must come to an agreement on the split of military and domestic costs of maintaining bases on foreign soil. Currently, Tokyo is paying 94% of \$5 billion dollars need to maintain the Iwakuni base in southern Japan, which houses the majority of the Marine Corps Air division on Japanese soil. Japan is also responsible for substantial amounts on other army bases and naval ports. The US, to the dismay of public opinion, will have to take on the burden of covering more of the costs to alleviate financial pressures. An arrangement could easily be made between the two governments to have the United States cover military funding in exchange for trade subsidies or other substantial benefits.

Talking Points:

- Unilateral action solely by US forces creates a bad precedent for the US federal government, and would not have the support of the UN or other international bodies
- -Coalitions solely between southeastern Asian nations would be sufficient, but would lack the firepower and technological advances to combat Chinese economic growth and military buildup
- • Japan has been isolated from US military aid in South Korea and other western-allied nations since the end of the Cold War
- -Japan had amassed substantial financial wealth through international trade and manufacturing, and can serve as the center point for the coalition due to its financial status and geopolitical importance (close proximity to Chinese territories)
-

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Multilateral Agreements: Combating a Dangerous Nuclear Arms Race in South Asia

By Tanisha Mohapatra, Majors: Government & Economics Email: tm525@cornell.edu

As the world talks about nuclear non-proliferation, South Asia is emerging as a hotbed of discussion regarding the lack of nuclear disarmament policies. India and Pakistan should be engaged in multilateral nuclear normalization agreements to ensure accountability in their nuclear arsenal.

History:

India and Pakistan have never been signatories to the Non Proliferation Treaty. Pakistan's nuclear strategy is India-centric, while India's posture is mainly directed against China, and nominally against Pakistan. Following India's first nuclear test in 1974, Pakistan demonstrated its nuclear weapons capacities with a round of tit-for-tat nuclear tests in May 1998. Since then, inventories have tallied to 100-120 for India, and about 110-130 for Pakistan, with further production underway. The neighbors have gone to war thrice in the past, and the possibility of a 'Limited Nuclear War' is very real and alarming, even though the arsenal is in cold storage. Such conflict can have astounding consequences: a projected 20 million deaths within a week, extensive radioactive contamination, climate disruption by 6.5 million tons of soot, shorter food growing season, and chronic starvation. Both countries are seeking entry into the club of responsible stewards of nuclear capability. Yet, the international community has been unwilling to find a pathway to confer de jure nuclear-weapon-state status on Islamabad and New Delhi, leaving the door to nuclear normalization shut.

Key Facts:

- 1. India and Pakistan share heavily militarized border, major territorial disputes, cross-border terrorist activity, and rapid advancements in nuclear arsenals.
- 2. They are not signatories to the Nuclear Non Proliferation treaty, neither are they members of any cohorts for accountable nuclear policy.
- 3. Normalization means treating both as "nuclear normal countries" if they meet certain criteria.
- 4. With Nuclear Normalization, India and Pakistan

Policy Idea:

"Normalize" the nuclear programs in India and Pakistan by engaging them in multilateral agreements that will oblige them to adhere to nuclear responsibility norms, rather than maintaining an "outlaw" status that opens the door to unchecked buildups.

Analysis:

India's security rationale for developing a nuclear weapons program stems from perceived threats from China, and these perceptions continue to drive India's arms build up to this day. Yet, India's moves to modernize its nuclear forces with new delivery systems and ballistic missile defenses to balance against China raise red flags in Pakistan. In this context, the logic behind Islamabad's decision to develop nuclear weapons is clear—its program is primarily intended to offset its disparity with India in conventional forces and to prevent nuclear coercion. Islamabad's current deterrence posture comprises compact-design warheads, short-range battlefield weapons, and medium-range ballistic and cruise missiles. Cross border terrorist activities always pose the risk of potent weapons falling in the hands of non-state actors. Additionally, India and Pakistan have announced plans to introduce sea-based nuclear weapons sometime soon, making arrangements to apply strategic restraint problematic. Confronting a bilateral relationship characterized by a heavily militarized border, major territorial disputes, cross-border terrorist activity, and rapid advancements in nuclear arsenals and delivery systems, the international community should make every effort to discourage this arms race. Rigidly following the nonproliferation regime of five nuclear-weapon states simply confines India and Pakistan to a perpetual "outlaw" status that opens the door to unchecked arsenal buildups. India and Pakistan must be involved in multilateral negotiations that would establish certain criteria that the two countries must meet, with the eventual goal being to bring them into the global export control regimes, such as the NSG.

Next Steps:

Nuclear normalization is one path that could temper this security dilemma. With the 2008 US-India nuclear deal, there is some form of legitimacy in terms of recognition of India's nuclear program, but India is not legally obligated to undertake the steps Non Proliferation Treaty (NPT) nuclear-weapon states are required to take. Pakistan, in contrast, has neither the nuclear legitimacy nor a nuclear deal that could entice India to follow these norms. Nuclear normalization would simply mean that each country would be treated as "normal nuclear country" if it met certain criteria. The two countries could be mainstreamed into the nuclear world order by making them members of the Nuclear Suppliers Group and other export control regimes. This would require the steps taken by a current outlier country like India or Pakistan to undertake obligations and adopt practices and policies as if it were a de jure NPT nuclear-weapon state.

Talking Points:

- Given that most sexually active adults will contract HPV at some point during their lives, it is important to take early action and inform the parents of adolescents and young adults about the benefits of HPV vaccines such as Gardasil and Cervarix
- The vaccination rate among young women for the HPV vaccine stands at only 37 percent, compared to other vaccines required for school entry which have almost full vaccination rates
- Mandating the HPV vaccine for school entry may help to boost uptake rates in a short period of time, and exemptions for religious or moral reasons may be submitted by parents if they object

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REIMAGINE THE RULES

Intergovernmental Cooperation & Justice: The International Criminal Court

By Shivani Parikh Major: Development Sociology, Email: sp797@cornell.edu

By ratifying the Rome Statute and joining the ICC, the U.S. can aid in prosecuting those guilty of crimes of genocide, crimes against humanity, and war crimes. Participation will promote multilateralism, international partnership, and validate institutions that preserve natural law.

History:

The International Criminal Court (ICC), governed by the Rome Statute, is the first permanent, treaty-based, international criminal court established to help end impunity for the perpetrators of the most serious crimes of concern to the international community. The ICC is an independent international organization, and is not part of the United Nations system. Its seat is at The Hague in the Netherlands. In 1948, the United Nations General Assembly (UN GA) adopted the Convention on the Prevention and Punishment of the Crime of Genocide. The conflicts in Bosnia-Herzegovina, Croatia, and Rwanda of the early 1990s led the UN Security Council to establish two ad hoc tribunals to hold those responsible accountable. The Rome Conference took place from June 15th to July 17th, 1998 in Rome, Italy, with 160 countries participating in the negotiations and the NGO Coalition closely monitoring these discussions, distributing information worldwide on developments, and facilitating the participation and parallel activities of more than 200 NGOs. On April 11th, 2002, the 60th ratification necessary to validate the Rome Statute was accomplished by several states' signatures, and the treaty entered into force on July 1st, 2002 .

Key Facts:

- 124 states are parties to the Statute of the Court, 31 countries have signed but not ratified the it, and 41 United Nations member states have neither signed nor acceded it.
- There are five types crimes of genocide, 16 types of crimes against humanity, and 11 types of war crimes.
- The ICC has four branches: the Presidency, the Office of the Prosecutor, the Judicial Division, and the Registry.
- There have been ten official investigations and seven preliminary examinations, through which 39 individuals have been indicted.

Policy Idea:

Legislation should be introduced that appropriates funds to create a comprehensive government presence (in conjunction with current government agencies, such as the National Institute of Health) on social media for the purpose of promoting public health. These funds should be used to create a platform that can be integrated into current social media sites such as Facebook and Twitter and be responsibly used to provide general information to low-income populations, as well as an interactive forum ran by qualified health care professionals to offer more specific, personalized information.

Analysis:

As a permanent member of the UN Security Council and a country with unidirectional approaches to international negotiations, the U.S. has an undeniable large international presence. There are several reasons that opponents give for why the U.S. should not join the ICC, but upon closer examination, they are not defensible. Judicial Power, found in Article III, Section I of the U.S. Constitution , establishes the U.S. Supreme Court as the highest legal authority. However, the ICC is supranational utilizes the Complementarity Principle in relation to national courts. This Complementarity Principle allows the U.S. to continue to uphold the powers of the Supreme Court. Another reason cited as to why the Rome Statute should not be ratified is because the ICC prosecutes before a panel of judges instead of a jury. However, the Complementarity Principle permits American citizens to be tried before a jury in the Supreme Court. By further ensuring the due process rights of nationals, the U.S. could help shape the ICC by enhancing the areas it sees as unfit. Finally and most importantly, the Court does not violate the Constitution, but rather supplements it as a court of last resort . The ICC poses little risk to

U.S. sovereignty, service members and public officials abroad. By signing the Rome Statute, the U.S. would undertake a good-faith investigative effort of offenses under the statute and domestic law and meaningfully assert jurisdiction over offenses.

Next Steps:

The President should submit the Rome Statute treaty to the Senate for advice and consent for ratification. The Senate, then approving the treaty by a two-thirds majority vote, may submit amendments, reservations, or explanations to the President regarding the treaty if necessary. Its ratification would mean that it is accepted by the U.S. to be bound to the treaty as a standard for public international law. If the U.S. Constitution is found to be incompatible with the treaty, the Constitution would then be amended as needed so that the treaty may be brought into full effect.

Talking points:

- The ICC is responsible for international criminal accountability but lacks participation from the U.S.
- The U.S. already favors the ICC in principle with its signature, and the ICC would be greatly strengthened from its support
- Prompt adherence would give the US power to influence the ICC from the outset

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VI. Center for Healthcare Policy

“Neither the American people, nor their government, intends to socialize medical practice any more than they plan to socialize industry.”

-Franklin D. Roosevelt

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Letter from the Director

“Fighting the Heroin Epidemic: Integrating Harm Reduction and Care Coordination”

Nethan Reddy ‘18

Harm reduction is increasingly recognized within the substance abuse community, and research has shown care coordination to be effective in treating multiple chronic illnesses. A new policy integrating these two could be useful in fighting epidemic heroin abuse.

“Increasing Access to Healthcare for Low-income Immigrants”

Nisma Gabobe ‘18

The current 5-year waiting period for qualified non-citizens to receive health care is an unnecessary legal barrier. This period disproportionately targets low-income minority immigrants who are at risk because they are unable to access quality health-care.

“Supervised Heroin Injection: A Comparative Analysis of Injection Facilities and Their Application to Ithaca”

Henry Kanengiser ‘18

Ithaca Mayor Svante Myrick proposed a supervised injection facility in Ithaca for heroin addicts. Although highly controversial, the facility could have a highly positive impact on Ithaca, based on the impact of previous facilities. Furthermore, attempting this form of alternative treatment could popularize it for the rest of the United States, and go great lengths towards improving heroin treatment during our current drug crisis.

“Importance of Mandatory HIV Testing and Counseling”

Amy Kim ‘18

Many of the current HIV tests work to detect the presence of antibodies rather than to detect the HIV virus itself, which can be problematic if the body has not yet had a chance to mount a response and produce antibodies. Mandatory counseling would provide individuals with more accurate information about their HIV status. In order to further spur innovation for reliable and effective HIV tests, the federal government should engage in purchase commitment with researchers to develop long term solutions to end the epidemic.

Meet the Center for Healthcare Policy

Letter from the Director

Dear Readers,

I am very pleased to present the tenth issue of Looking Ahead: The Cornell Roosevelt Institute Policy Journal from the Center for Health Care Policy. Our analysts have analyzed current and relevant issues and proposed forward-thinking creative solutions to improve the quality of life for many particularly vulnerable populations in the United States . I have had the amazing experience of working with each these analysts on the issues that inspire them, and am looking forward to seeing their continued contribution to health care policy development and reform.

Each analyst has combined creativity and passion with careful research and hard work to produce the policy proposals that comprise this publication. I have found each piece to be enjoyable to read and incredibly thought provoking and I hope you will as well.

Sincerely,

Angelica Cullo '17

Biology and Society



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REIMAGINE THE RULES

Fighting the Heroin Epidemic: Integrating Harm Reduction and

By Nathan Reddy, Major: Biology & Society '18, Email: nsr44@cornell.edu

Harm reduction is increasingly recognized within the substance abuse community, and research has shown care coordination to be effective in treating multiple chronic illnesses. A new policy integrating these two could be useful in fighting epidemic heroin abuse.

Background:

Opioid abuse, and by extension heroin abuse, has increased in the past several years, and in that same time overdose deaths have multiplied.⁹ As a result, syringe exchanges have become more recognized as an effective way to minimize HIV transmission, as indicated by lifting federal funding bans on the programs.¹⁴ One reason commonly cited as a cause of the epidemic include a dramatic increase in prescribed opioid medications that led to abuse, and subsequently heroin use.⁹ Others include the increased availability, cheaper price, and the increased purity of heroin.⁹ Heroin use has increased significantly nationwide, but the epidemic has primarily affected rural white communities of varying income levels in several Midwestern states.^{8,12} Other policy ideas previously used to combat widespread substance abuse are criminalization tactics and abstinence-based recovery programs. The “war on drugs” has consistently proven to be extremely ineffective, resulting in exorbitant federal expenses that have done nothing to decrease substance abuse rates. Abstinence-based recovery programs have been ineffective because they perpetuate negative attitudes towards those with a heroin addiction, and neglect pivotal safety and public health concerns associated with the injection of heroin itself.^{10,11} Political barriers to reducing support for these approaches and funding potentially more effective ones include conservative and unfavorable views of the harm reduction philosophy¹⁵ and disparity in terms of mental health and substance abuse health care reform.⁷

Key Facts:

- 81% of CC tasks that prevented emergency room visits and 63% of CC tasks that prevented office visits were completed by resident nurses.¹
- Average cost per CC task is \$7.78. The average cost per emergency hospitalization for opioid overdose is \$3,640. The principal cost driver for CC was the percentage of tasks performed by physicians.¹
- Average hourly primary care physician salary is \$86.20, average

Policy Idea:

Implement care coordination (CC) networks for syringe exchange participants located at the syringe exchange site itself. Employ certified-nursing assistants (CNAs) skilled in the areas of substance abuse and mental health treatment to coordinate medical resources that do not require a physician's expertise, and CC managers to coordinate non-medical resources. The roles of the exchange participants' physicians' and CNAs providing direct medical care within the CC network should be limited to communication with both the certified-nursing

Analysis:

Care coordination, organizing patient care activities between two or more participants (including the patient) to make healthcare delivery more efficient¹¹ is already a component of sites that house syringe exchange programs, like the Southern Tier Aids Program.¹⁶ Also, CC has been shown to be particularly effective in treating those with multiple chronic conditions, especially when two of those conditions are a substance abuse and mental health disorder.⁴ CC has also been shown to be more effective when the patient has to deal with significant social and economic stressors along with health problems.¹ Because of Congress' recent recognition that better and more accessible mental health services are imperative to treating heroin abuse, and that syringe exchanges are self-selecting for disadvantaged populations, CC programs should definitely be considered in reducing the epidemic.^{7,17} Not only have CC strategies been effective in terms of patients' health improvements and preventing deaths, but they have also been cost-effective.^{1,2,5} They have led to net savings by avoiding emergency hospitalizations when examined in populations of children with special needs and those abusing alcohol, and definitely has potential to be as cost-effective in avoiding emergency hospitalizations for heroin overdoses.^{1,2} Also, even with the net savings, the cost of CC was inflated by physicians' salary in CC tasks.^{1,2,5} Many of these tasks do not require the training of a physician, but at least someone with certified medical expertise.^{1,2,5}

Next Steps:

Many syringe exchange sites are already housed under non-profits that receive government funding for their services, including CC. Funding should be increased and allocated for the purposes of employing CNAs and employing more care coordination managers at these facilities. Syringe exchange programs should incentivize exchange participants to utilize CC services and, if they do not have health insurance, signing up for an appropriate government-sponsored plan. CC

Talking Points:

- The heroin epidemic is worsening and current strategies including the “war on drugs” and abstinence-based recovery policies are costly and ineffective
- The current system in which healthcare and social providers are independent from each other causes discord and an inefficient use of resources leading to negligible improvements

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REIMAGINE THE RULES

Improving Health Outcomes of Dementia Patients Through On-Campus Training

By Nisma Gabobe, Major: Government '18, Email: njg72@cornell.edu

The current 5-year waiting period for qualified non-citizens to receive health care is an unnecessary legal barrier. This period disproportionately targets low-income minority immigrants who are at risk because they are unable to access

Background:

While undocumented immigrants are unable to receive Medicaid, documented immigrants who fulfill the qualifications of immigrant status put forward by the Affordable Care Act are able to acquire health insurance from the government. Despite these apparent benefits, many immigrants experience a 5-year waiting period after receiving the status of “qualified non-citizen” because they have resided in the country for less than 5 years. These immigrants, despite being designated “qualified” by the state are unable to receive health coverage (with exceptions for certain immigration statuses including: lawful Permanent and Temporary Residents, Asylees, Refugees, victims of trafficking and domestic violence, and more).

Key Facts:

- 21% of uninsured people in the United States are documented and undocumented non-citizens.
- Qualified non-citizens who have lived in the U.S. for less than 5-years typically experience a 5-year waiting period before they are eligible for Medicaid coverage.
- 58% of lawfully present noncitizens are low-income.

Policy Idea:

The 5-year waiting period for “qualified” immigrants who have been in the U.S for less than five years should be eliminated. This will allow more immigrants to access quality healthcare, especially low-income minority groups who experience the greatest health risk.

Analysis:

In the United States, 21% of the uninsured population is composed of non-citizens, which includes both undocumented and documented immigrants. What’s more, those who are low-income among this group are unable to access Medicaid despite the need for treatment. A study conducted by the California Health Interview Survey showed that there were disparities in the health of elderly people between immigrant Hispanic and African-Americans and the general population. The study reported that over 1/3 of Hispanic and African American elderly immigrants had declining health compared to white seniors (both immigrant and nonimmigrant alike). Because those in minority groups are more likely to have declining health, those with low-income among minority groups are at an even higher risk of health problems. Researchers from the UC Berkeley Labor Center and the UCLA Center for Health Policy Research, found that 58% of non-elderly, lawfully present immigrants were low-income. It was also found that most lawfully present immigrants refused health insurance because they were unable to afford it. Those with low-income among minority groups have more difficulty paying for health insurance and thus are unable to receive regular health care access which could explain the disparities in the health

Next Steps:

While many undocumented immigrants will still not be able to access quality healthcare, eliminating the 5-year waiting period would remove a legal barrier for those who are documented and increase access for immigrants in the future. In order to implement this policy nation-wide, support would be necessary from both Democrats and Republicans in Congress. One challenge of this proposal is that Republicans have not supported Medicaid expansion in the past and plan to seek strict immigration reform as well so it is unlikely that they

Talking Points:

- The status of health among immigrants is largely dependent on race as immigrants from racial minorities experience worse health than those that are white.
- The primary reason for lack of insurance coverage among non-citizens is affordability.
- Allowing more low-income, non-citizens to access Medicaid would reduce the racial disparities in health among immigrant groups.

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Food Insecurity on College Campuses: SNAP Out of it

By Joshua Roth, Major: Policy Analysis and Management '18, Email: jjr246@cornell.edu

The amount of prescriptions that doctors prescribe for opioids went from 76 million in 1991 to 207 million in 2013.¹² Excessive opioid use has put an economic strain on the government and the private sector in the form of

Background:

The use of both heroin and prescription drugs (including oxycodone, hydrocodone and methadone) has significantly increased over the past 30 years. Today one in 20 Americans ages 12 and older report using painkillers for recreational purposes.

The trend of massive opioid use began in the 1980's when drug companies and doctors started pushing opioids for nearly all forms of chronic pain.⁴ During this time the amount of prescriptions that doctors prescribe for opioids went from

76 million in 1991 to 207 million in 2013.¹² Additionally, one study found that "the average amount of opioid per prescription, in morphine milligram equivalents, increased 69.7% for oxycodone, 69.4% for hydrocodone, and 20.9% for fentanyl nationally between 2000 and 2009." Sources of prescription drugs also include pill mills, black markets and peers. According to the National Survey on Drug Use and Health (NSDUH), 50.5% of people who used prescription opioids received them from a peer or family member and 22.1% received from a doctor.⁶

Although dangerous, use of heroin is a significantly smaller issue than use of prescription opioids. Today over 2.1 million people abuse prescription opioids and over 467,000 people abuse heroin. Heroin is far less potent and accounts for far fewer deaths than prescription drugs.

Using opioids recreationally can be very dangerous, causing overdoses and injury. In 2010 38,329 Amer-

Policy Idea:

One-way to address the issue of overdose is to provide substance abuse treatment to people who are addicted. An important component of this treatment involves access to medication-assisted treatment, including drugs like: methadone, buprenorphine, and naltrexone. These drugs help reduce cravings and ease pain from withdrawal. Methadone and buprenorphine activate opioid receptors to a limited degree, whereas Naltrexone blocks the receptors. However, less than half of people who are addicted to opioids have access to this form of

Analysis:

Effectiveness- Multiple studies show positive effects of access to MAT on death rates. In a study conducted in Baltimore, researchers examined death rates before and after people gained access to methadone and buprenorphine. Researchers found that access to MAT had a statistically significant impact on the amount of overdoses. [9] Even as the potency of heroin increased, the amount of overdoses dropped from 312 in 1999 to 106 in 2008. Another study analyzed the impact of a publicly funded program in California that provided MAT. 1 Researchers found that participants in the program were significantly less likely to die of an overdose than those who did not participate. In a meta-analysis of 16 studies between 1995 and 2012 on the impact of medication-assisted treatment with buprenorphine, researchers found a "positive impact on treatment retention and illicit opioid use." 10

Cost/Benefit- Multiple studies have found the potential gains from supporting MAT to be fairly substantial. Gains were found both in saving from health care costs and in increased work productivity following treatment. One study found that for every "\$1 invested in addiction treatment programs yields a return on investment of between \$4 and \$7." This is due to saving from "reduced drug-related crime, criminal justice costs, and theft." Another study analyzing potential economic saving from health care costs, lost work productivity, and crime found that every dollar invested in MAT would yield \$38 dollars in economic benefit.

Offsetting behaviors- although effective and beneficial when administered properly, MAT can be very dangerous if used improperly. Patients are most vulnerable to overdose while MAT is being administered. If not adminis-

Key Facts:

- 31% of students report choosing between paying for food and tuition
- In 2015, 1 out of 5 Cornell students skipped a meal due to financial constraints, accessibility, or other factors.
- Students on Cornell's least expensive meal plans only have 1 meal a day or approximately \$5 in 'big red bucks'.

Next Steps:

Currently, the department of Health and Human Services is working with private and public institutions to improve the quality of increase access to MAT. The National Institute on Drug Abuse is funding research on how to “improve the delivery of MAT” and develop new drugs for treatment. 10 The Substance Abuse and Mental Health Services Administration uses government funds to support MAT in rehabilitation centers and educate the public on the benefits of MAT. All organizations should be provided with additional funding in order to increase the availability of MAT and find new and improved ways to administer treatment.

Research suggests that organizations that rely on 12 step programs and lack prescribing physicians are significantly less likely to provide MAT. 7 To address this issue the government should encourage all rehabilitation organizations to have physicians on staff and to provide MAT. The government should also provide more funding to organizations with health care settings (research suggests far more likely to administer MAT).

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REIMAGINE THE RULES

Improving Doctor Confidentiality to Promote Open Conversations

By Holly Grace, Major: Biology & Society '18, Email: heg55@cornell.edu

Minors are often unaware of their right to confidentiality when visiting a doctor, which leads to withheld information and secrets. Informing and reminding patients through private conversations with doctors about their patient

Background:

Patient confidentiality has been a critical aspect of healthcare since the creation of the Hippocratic Oath. While its meaning has evolved over time, patient confidentiality has maintained its relevance to doctors' ability to provide care. The American Medical Association's Code of Medical Ethics states that, "the information disclosed to the patient during the course of the relationship between the physician and patient is confidential to the greatest degree."¹ Young adults are often unaware or unsure of their doctor's obligation to keep their medical records private unless they give consent and sign an agreement to share their records. Jessica Berg explains that "Consequentialist theory suggests that without assurances of confidentiality, patients are less likely to disclose important medical information to their doctors."¹

Fear of personal information disclosure can lead to problems such as avoidance of talking about mental health, home environment issues, sexual activity and the risk of pregnancy and STDs. While this issue is not new to the relationship between minors and doctors, unawareness of confidentiality rights has grown in its potential to do harm as doctors have increased their ability to help with problems such as unwanted pregnancies, mental health issues, domestic violence, and more. If patients are comfortable enough to share information with their doctors, they are able to receive more help than ever before. Patients currently are required to give consent by signing a waiver if they wish to have their medical information disclosed to anyone. This often occurs, however, without the patient being fully aware of their options or in the presence of an adult figure to whom they feel obligated to give permission.

Policy Idea:

Doctors need to speak to patients, especially minors, in private about their rights to confidentiality and offer for them to waive their confidentiality only when there is nobody else present so that patients can properly consent. These consent forms can not be provided in areas such as the waiting room or lobby of the doctor's office, but only in private in the examination room.

Analysis:

Requiring doctors to inform patients of their right to confidentiality as well as giving them the opportunity to waive their confidentiality in private will give patients more freedom to keep their personal health information from their parents or guardians. This will reduce the problem of minors withholding information that their doctors need to know in order to improve their health. Implementing this policy could help reduce teen pregnancy, improve mental health, and increase awareness of other health issues, just by encouraging free conversation with doctors. The proportion of women at risk of pregnancy is highest among 15 to 19 year olds, showing that comfortability with doctors among this age group must be focused on in order to encourage the use of

Key Facts:

- Of the 208 hospitals surveyed in the report, 20 percent had fast food chains on campus (Huffington Post)
- The Physician's Committee for Responsible Medicine analyzed contracts and found that the hospitals are incentivized to help the fast-food restaurants sell more processed food (TakePart).
- Nearly 90 percent of hospitals in California have at least one fast food outlet on their campuses and high-sugar drinks in their vending machines (Centers for Disease Control)
- A survey of hospitals showed the top five "worst hospital environments" had at least one fast food restaurant (The Physicians Committee for Responsible Medicine)

Talking Points:

- Many times minors are pushed into consenting to share their information because their guardian is present.
- Without full confidence in doctors, patients withhold crucial information
- Minors are often unaware of their right to keep their medical information confidential
-

Next Steps:

To implement this policy, doctors must be trained on how to explain to patients their right to confidentiality. There also must be negative consequences for disregarding this procedure of explaining to patients in private rather than in the presence of others. All medical staff must be made aware of the importance of encouraging patient understanding of their confidentiality of personal medical information.

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Supervised Heroin Injection: A Comparative Analysis of Injection Fa-

By Henry Kanengiser, Major: Government '18, Email: hhk33@cornell.edu

Ithaca Mayor Svante Myrick proposed a supervised injection facility in Ithaca for heroin addicts. Although highly controversial, the facility could have a highly positive impact on Ithaca, based on the impact of previous facilities. Furthermore, attempting this form of alternative treatment could popularize it for the rest of the United States, and

Background:

In February 2016, Ithaca Mayor Svante Myrick proposed a novel solution to decrease heroin addiction rates. Myrick's four-part Ithaca Plan for approaching drugs from a public health perspective included a proposal for a supervised injection facility (SIF) for heroin users, a practice that has only been implemented in one city in North America. The facility, which would be the first of its kind within the United States and second in North America, was based off of the successful facility in Vancouver, as well as facilities in several European countries.

Insite, the Vancouver SIF, was founded in 2003. The facility is described as a "safe, health-focused place where people inject drugs and connect to health care services". The facility was instituted as part of a larger four pillar drug policy program with the same four pillars as Myrick's proposal for Ithaca. That model was originally popularized among several European countries including Germany, Switzerland, and The Netherlands, where studies of the model showed positive results of heroin-assisted treatment in these countries. Although the original proposal expired after three years, Insite remains open today, due to its popularity and effectiveness.

Key Facts:

- CARS, a prominent figure in drug treatment in western New York saw an increase of 35 35 % in intake population with heroin as their primary addiction between 2007 and 2012.
- Following the opening of Insite, overdose deaths dropped by 35% in the area and 9% across Vancouver
- Studies of the Insite impact demonstrated decreased levels of public injections and syringe sharing and

Policy Idea:

The New York state government should follow a similar procedure to that which was used in Vancouver for Insite. They should approve Myrick's call for a SIF, conditional on research results that would come out within a few years. If run in a similar way to Insite in Vancouver, it is likely to have similarly successful results, and there is undoubtedly a need for alternative treatments for heroin addiction in the United States. If the research shows its success, then there should be a potential for expanding locations of SIFs to the greater Southern Tier area. A treatment plan that saves the government

Analysis:

Implementation of Myrick's proposed SIF is an extremely effective way to address the heroin epidemic from both a public health and a financial standpoint. The success of Insite in Vancouver as well as other SIFs in Europe demonstrate the clear benefits a SIF can have in Ithaca in several different ways. The Insite facility received its legal exemption from drug laws on condition that their impact was extensively researched. When this research was compiled, the true impact of the facility on the Vancouver area was extensive, and extremely positive. An assortment of more than 30 peer-reviewed studies demonstrated decreased levels of public injections and syringe sharing. Other studies showed increased public order, likelihood of enrolling in a detox program, and success at managing overdoses. Studies measuring any adverse effects of Insite found none. Not only have no fatal overdoses occurred at Insite, but the rate of fatal overdoses in the community around the facility dropped by 35% from before the facility opened to 2005 and 9% across all of Vancouver.

Talking Points:

- Implementing a SIF in Ithaca would likely prevent many of the deaths associated with heroin overdoses.
- Performing research on the impact of the Ithaca SIF would allow its results to be shown more clearly and could more effectively popularize the usage of SIFs.

Next Steps:

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The Importance of Mandatory HIV Testing and Counseling

By Amy Kim, Major: Government '18, Email: dk589@cornell.edu

Many of the current HIV tests work to detect the presence of antibodies rather than to detect the HIV virus itself, which can be problematic if the body has not yet had a chance to mount a response and produce antibodies. Mandatory counseling would provide individuals with more accurate information about their HIV status. In order to further spur innovation for reliable and effective HIV tests, the federal government should engage in purchase com-

Background:

In 2014, an estimated 44,073 people were diagnosed with HIV. Of the 1.2 million people in the United States who were infected, 1 in 8 (13%) were unaware of their infected status.² The proportion of the US population that reported they were tested for HIV at some point increased between 1997 and 2004, but has remained relatively stagnant since then. Additionally, as of 2012, 54% of US adults between the ages of 18 and 64 reported ever having been tested for HIV. 57% of those who had never been tested reported having not done so because they did not see themselves at risk and/or did not participate in risky sexual behavior.⁴

Race/ethnicity, age, sexual orientation, and region of residence affect an individual's likelihood of contracting HIV. For instance, African Americans, and Hispanics to a lesser extent, are most affected by HIV. In 2014, African Americans made up only 12% of the total US population, yet contributed to 44% of all new cases of HIV. By transmission category, gay and bisexual men are most at risk, accounting for approximately two-thirds of all new HIV diagnoses. Young people between the ages of 13 and 24, who are likely more sexually active and prone to engage in risky behavior, are especially affected by HIV. In 2014, they comprised 16% of the US population but disproportionately accounted for 22% of all new HIV diagnoses. Some parts of the U.S have higher HIV prevalence; HIV is an urban disease since the greater human-to-human contact increases the likelihood of spreading and contracting the disease. While the South has the highest number of people living with HIV, the Northeast has the highest rate of people living with HIV.⁴

During the acute HIV infection stage, large amounts of the virus are being produced in the body. So, the extremely high levels of HIV in the bloodstream put sexual or drug partners at high risk of contracting HIV.⁵ Therefore, if individuals incorrectly believe that they are HIV-negative and do not take precautionary measures to protect themselves and others, they are putting the society at risk. Mandatory HIV testing has been proposed by many advocates and policymakers as a solution so that people have full and accurate information about their HIV status. However, the current HIV testing techniques, most of which test for the presence of antibodies rather than the actual virus itself, can provide false assurance to people that they are HIV-negative when in fact

Policy Idea:

We propose to implement a federal law that requires all individuals above 17 (average age at which one becomes sexually active) to undergo HIV testing and receive appropriate professional counseling based on the testing technique used. The goal is to make all individuals aware of their real HIV status and to raise awareness of the possibility that HIV test results can be inaccurate if the body has not had enough time to produce antibodies. Purchase commitment should be further promoted in order to spur substantial and cost-efficient medical inno-

Analysis:

A number of alternative policies have been proposed by advocacy groups, policymakers, and economists alike to reduce the likelihood of contracting and/or spreading HIV. Many have advocated for mobile clinics to deliver HIV testing and other basic services. While these mobile clinics are situated in areas where people are most at risk of contracting or spreading HIV, the tests themselves can be unreliable.⁴ We recommend a federal law that requires everyone who is sexually active and/

Key Facts:

- Currently there are over a million people in the United States who have been infected, of which at least 13% are unaware of their HIV status
- HIV tests that detect the presence of antibodies rather than the HIV virus itself can potentially provide false results
- An antigen test, though less accessible and costlier at the moment, can be a more effective means of detecting HIV earlier on in the infection stage

or a needle-injection drug user to get tested for HIV every 6 months to 1 year. In order to reduce the adverse consequences of a false HIV-negative, which is of more concern than a false HIV-positive, it is also recommended that all those who have been tested receive counseling from a licensed nurse or doctor so that they are made aware of the weaknesses of the HIV techniques used. Some who are afraid of potential societal lash back or stigma opt for home-based testing kits for more privacy. However, it is essential that these people receive counseling so that they do not find relief in a potentially

Next Steps:

It is the responsibility of the federal government to implement mandatory HIV testing and counseling policies as well as to spur innovation in hopes of reducing the prevalence of HIV in the long-run. Such policies, if implemented at the state-level, would not be as effective and impactful because they would then be patchworks of policies with many loopholes for people to still spread HIV (assuming that people change their behavior according to their HIV status).

A number of cause-specific organizations like AVAC (the Global Advocacy Group for HIV Prevention)¹ must come together in order to deliver these proven testing techniques and tools for immediate impacts on people affected. Seeing as gay and bisexual men, and African Americans who live in urban areas are most at-risk, HIV prevention tools should target these populations.

Talking Points:

- Antibody tests provide greater access and lower costs
- Mandatory counseling for techniques that test for antibodies
- Purchase commitment as supplement to patents and government-funded research to spur medical innovations in search of vaccines/drugs of HIV/AIDS

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Meet Our Healthcare Policy Center



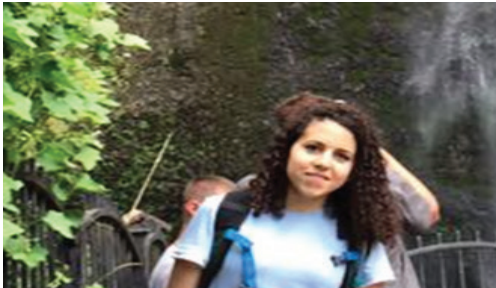
Henry Kanengiser

Henry Kanengiser is a sophomore in the College of Arts and Sciences, studying Government. He is the Vice President of the Cornell Political Affairs Commission and an editor for Stetho-SCOOP the Cornell undergraduate pre-medical journal. In his free time, he likes to ski, run, and cook.



Alex Iglesias

I am currently a junior Policy Analysis & Management major in the College of Human Ecology interested in the intersection of business and healthcare. My hobbies include exploring the natural beauty of Ithaca and Netflix (although HBO GO is pretty good too). Other organizations I'm involved with on campus include the Student Assembly, the Ambassador program within the College of Human Ecology, and College's Against Cancer.



Angelica Cullo, Director

Angelica is a junior studying Biology & Society with a concentration in Public Health. This is Angelica's 3rd year with Roosevelt, and she is interested in increasing access and quality of preventive care, particularly mental and psychiatric services. She believes that effective mental health policy should implement preventive strategies in primary care settings. She enjoys soccer, being outdoors, and dry humor and one day hopes to work in health care policy to improve access and affordability.



Holly Grace

Holly is a sophomore majoring in Biology and Society. In addition to the Roosevelt Institute, I am also involved in the Cornell International Affairs Society, Alpha Phi Omega, and the Residential Student Congress. After graduating from Cornell, I hope to attend medical school and work to improve health globally.



Nethan Reddy

Nethan is a sophomore Biology & Society major in the College of Arts & Sciences. I am a very active member of Cornell Minds Matter, mostly working on the club's public relations and our Dining with Diverse Minds programming. I am also a research assistant for the Cornell Research Program on Self-Injury and Recovery with Dr. Janis Whitlock. Next semester I will be volunteering at the Southern Tier Aids Program as a public service scholar. My hobbies include sobbing to Adele's new album, and finally understanding why Glee was so hyped in 2010 through Netflix.

Not Pictured: Amy Kim, Nisma Gabobe, and Josh Roth

VII. Center for Science & Technology Policy

“The only limit to our realization of tomorrow will be our doubts of today.”

-Franklin D. Roosevelt

Director

Elizabeth Zelko ‘16

Analysts

Chad Stephenson ‘17

Anna Kambhampaty ‘19

Marc Alessi ‘18

Alexander Maisel ‘18

Arielle Tannin ‘18

Daniel Oudolsky ‘16

Letter from the Policy Director

“An Automated Workforce: Responding to the Diminishing Need for Employment”

Arielle Tannin ‘18

The potential for automated technology to replace half of the labor force in America necessitates instituting a policy like Universal Basic Income that would address and alleviate people’s need for income and fulfillment.

“Standardizing and Investing in Electric Vehicle Charging Infrastructure”

Chad Stephenson ‘17

The federal government should make use of open patents to push for standardization in electric vehicle charging technology. After achieving this, it should significantly invest in charging stations in order to catalyze electric vehicle (EV) adoption.

“Increasing Connectivity through Open Education Resources”

Kathy Lin ‘18

Open Educational Resources (OER) offer new opportunities for educators to share quality educational resources that will aid in the parallel efforts for states implementing Common Core State Standards while minimizing cost.

“Reducing E-cigarette and Hookah Use Among Youth”

Andjela Cirko ‘18

Although the use of cigarettes among youth has declined, the use of e-cigarettes and hookah has increased. Without effective policies and programs addressing the dangers of these products, their increased use may lead to adverse health effects for adolescents.

“The Ethics of Human Gene Therapy”

Daniel Oudolsky ‘16

In this paper, the author will discuss the current legislation and regulations that exist in regards to genetic therapy. The author will delineate the argument for the need for comprehensive, updated legislation that reflects changing trends in use of genetic therapy in hospitals, clinics and medical centers.

“Online Voting Initiatives: Bringing Voting into the 21st Century”

Anna Kambhampaty ‘19

The New York State Board of Elections should establish and fund a committee to develop an online voting system, while making sure all voting data is secure and having the ability to authenticate users effectively.

“The Case for Education in the Juvenile Justice System”

Kelly Xu ‘18

In comparison to adult prisons, juvenile detention centers offer incarcerated youths a more viable pathway to becoming better contributing members of society after leaving the facility. However, this potential is not fully being capitalized on due to poor and severely outdated educational standards in the juvenile justice system.

“Unchecked Market Risks: Controlling High Frequency Trading”

Nicholas Curcio ‘19

Computer automated high frequency trading poses a systemic risk to the stock market; the United States government must adopt the High-Frequency Trading regulations suggested by SEC and CFTC joint committee in order to prevent dangerous market volatility and criminal behavior.

“Preventing Mississippi’s Youth From Becoming a Generation of Non-Internet-Natives in an Internet-Native World”

Agrippa Kellum ‘19

Enhance exposure to computers and the internet for Mississippi youth by allowing middle & high school students to access computer labs after school and promoting technological literacy necessary for participation in the modern workforce.

Meet the Center for Science & Technology

Letter from the Director

Dear Readers,

It has been one year since the Center for Science and Technology was established at the Cornell Roosevelt Institute, and I am incredibly proud to be a part of this growing policy area. This year we have six analysts, each of whom brings their own diverse background to the table in investigating some of the most pressing and relevant issues in science and technology today.

Though STEM is clearly an area of great cultural and political importance today, it often feels as though it is neglected for more “polarizing” or traditional policy issues. Even approaching the 2016 presidential election, surprisingly few of the candidates have addressed pressing issues in this sphere. Such issues have little to no presence in debates, and the majority of politicians are not particularly well-informed about them.

Therefore, I believe it is of particular importance for students of the Millennial generation to bring more of these policy concerns to light and to think critically about potential solutions. Each of these proposals introduces an interesting policy idea that must be tackled in the near future. I am proud of the work and passion these analysts have put into their proposals and their efforts to bring important science and technology issues greater attention.

Sincerely,

Elizabeth Zelko

Computer Science (A&S '16)

Director, Center for Science & Technology



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REIMAGINE THE RULES

An Automated Workforce: Responding to the Diminishing Need for Employment

By Arielle Tannin, Major: Information Science '18, Email: adt56@cornell.edu

Given the increasing reliance of attacks on cyberspace, it seems logical that governments would want to pool their resources to thwart cyber threats. The recent CISA bill is the latest effort to accomplish this, but it goes too far in infringing on the basic right to privacy of American citizens.

History:

The rise of automated technology has and will continue to drastically change the landscape of the workforce. Some economists and technologists see a future with employment falling between 30 and 50 percent solely based on automation. When a considerable portion of human labor no longer is necessary to run the economy, income generation, labor, and public policy must be reevaluated.¹

There is a significant danger of unrest from large groups of people who are not working. The economy of Youngstown, Ohio for instance, once made prosperous by the steel industry, fell into a regional depression after World War II when much of manufacturing moved abroad. This economic turmoil catalyzed several other negative social changes such as increased depression, spousal abuse, and suicide all stemming from the psychological state and boredom from being unable to find work.

As automated technology capabilities grow more sophisticated, people all over the world are beginning to wonder if and how robots will eventually replace human labor. The key problems implicated in this process are how people will earn money and what people will do with their time if they no longer have jobs. According to a 2013 University of Oxford study, nearly half of those currently employed in the United States are at risk of being replaced by automated systems in the next ten to twenty years. Among the most vulnerable sectors are transportation, logistics, and administrative occupations.² This is problematic because severely limiting the availability of human jobs jeopardizes the ability of people to earn an income and gain fulfillment, as many do from their work.

Key Facts:

- 47% of U.S. workers are likely to see their jobs automated over the next 20 years.
- In 1964, AT&T (the most valuable company at the time), was worth \$267 billion in today's dollars and employed 758,611 people. Google (today's telecommunications giant) is worth \$370 billion but employs roughly 55,000 people.
- Merely 5 percent of the jobs generated between 1993 and 2013 came from sectors like computing, software, and telecommunications.

Policy Idea:

In order to address the inevitable decline in jobs brought about by automated technology, the government must address the income needs of its citizens. Therefore, the government should adopt a model of Universal Basic Income by consolidating its resources from various welfare programs. Though contested, this policy would likely provide its recipients with avenues for fulfilling employment and psychological wellbeing.

Analysis:

To address the need for people to continue earning a living for themselves in an age with diminished labor opportunities, governments should consider guaranteeing a universal basic income to its citizens. This would ensure people are able to support themselves while also giving them the freedom to pursue work opportunities without worrying about falling into poverty.

Critics of UBI often argue that simply giving people money will make them dependent on government handouts. To investigate these claims, an NGO called GiveDirectlyⁱⁱⁱ has set up trials in Kenya and Uganda where they give each household roughly 400 dollars per month. After two and a half years they analyzed their data and found that affected households on average experienced a 34 percent increase in earnings and a significant boost in psychological well being (evidenced by a decrease in stress hormones). Other studies have found

that when the concern of homelessness is eliminated, people are more likely to pursue ventures in art, teaching, and other disciplines where income is less certain. This would contribute to a thriving culture in addition to ensuring the wellbeing of those who are unable to have their job be their primary source of income.

Next Steps:

The assumed connection between work and income must be rethought as the availability of human jobs becomes increasingly unpredictable. In order to implement a policy of universal basic income America can combine funds from government welfare programs and a tax on the wealthy that will be redistributed to people who are unemployed or below the poverty line. This money could then be given in monthly installments with the condition that people spend some percentage of their time giving back to the community or submitting proof of action in order to receive their next payment. This would address the need to enable people to have fulfilling lives in an age where society simply needs fewer workers.

Talking Points:

- A technologically driven workforce could exert a slow but constant downward pressure
- on the value and availability of work.
- Income being inextricably linked to work will become a danger as the demand for work far outweighs its supply People who cannot gain fulfillment from work become listless and often violent or experience psychological harm

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REIMAGINE THE RULES

Standardizing and Investing in Electric Vehicle Charging Infrastructure

By Chad Stephenson, Major: Industrial Labor Relations '17, Email: ccs235@cornell.edu

The federal government should make use of open patents to push for standardization in electric vehicle charging technology. After achieving this, it should significantly invest in charging stations in order to catalyze electric vehicle (EV) adoption.

History:

America's over reliance on fossil fuels continues to pose major threats, contributing to growing frequency of natural disasters,¹ supporting repressive regimes abroad,² and threatening political stability in the US and the world.³ Increasing electric vehicle usage is a critical way in which the US could dramatically decrease oil usage. Bloomberg projects that by 2040, electric vehicles will account for 35% of all new vehicle sales worldwide, reducing daily crude oil consumption by 13 million barrels per day.⁴ However, this growth in EV sales assumes heavy government subsidization of EV ownership and widespread buildout of charging infrastructure (similar to gas stations for gas-powered cars). Currently, competing EV manufacturers rely on proprietary charging technology, which represents a major bottleneck to the growth of the industry. Due to this lack of standardization, potential EV buyers cannot assume that all charging stations will be compatible with their vehicle. In addition, charging stations are far less common than gas stations, decreasing their relative value proposition compared to gas-powered vehicles. In order to reap the benefits of EVs, there is a critical need for standardized charging technology and widespread EV charging stations.

Key Facts:

- Fossil fuel consumption is strongly linked to natural disasters like Hurricane Katrina and contributing to humanitarian crises like the Syrian Civil War
- Switching 35% of drivers to electric vehicles could decrease worldwide oil consumption by approximately 13 million barrels per day.
- Adopting standardized charging technology and investing in supercharging stations is a critical component of increasing electric vehicle usage and combating the deadly effects of climate change

Policy Idea:

The federal government should adopt Tesla's open supercharger patents as the national standard, to be phased in over five years. To avoid providing Tesla with an unfair advantage, the government should compensate EV manufacturers with tax breaks on EV R&D costs equivalent to their lost investments in proprietary charging technologies. Next, the government should provide a percentage of funds necessary to build supercharging stations, with the remainder being paid for by EV manufacturers. The government should invest the amount necessary to ensure supercharging stations are as accessible as gas stations by 2050.

Analysis:

Tesla's supercharging patents represent the most advanced EV charging technology currently available, providing power at nearly twice the rate of the next most widespread charging platform.⁵ In order to stimulate the growth of the EV market and encourage rivals to adopt its format as the standard, Tesla chose to allow other manufacturers to use its technology through open patents. Given the need for charging standardization and the immediate accessibility of Tesla's advanced supercharger patents, adopting Tesla's paradigm as the national EV charging standard will be the most effective, least costly way to advance the EV industry in terms of technology and growth. To avoid providing Tesla with an unfair advantage, the government should also provide all automakers, including Tesla, with tax breaks equivalent to their investments in proprietary charging technology. The tax breaks should only be allocated to projects that will advance the utility of manufacturers' EVs, such as increasing charging speeds, improving driving range, or building supercharger stations. Once charging technology has been standardized, investing in supercharging stations will benefit EV consumers, manufacturers, and the entire US as the disastrous effects of climate change are slowed over time. Given that customers are unwilling to pay more than one thousand to five thousand dollars more for an EV6 over a traditional vehicle, and that manufacturers must accept very low margins in the

short-term for widespread adoption to be feasible, assisting the private sector with supercharging station buildout is critical.

Next Steps:

The US Department of Transportation will be responsible for handling the implementation of the new standard and administering subsequent investments in supercharging stations. The IRS will administer tax rebates over five years after verifying each company's claims for lost charging technology investments. The EPA and environmental groups will be key allies supporting the policy and relevant legislation. First, USDOT should meet with Tesla and all other current EV manufacturers to discuss the adoption of the new standard, ensure that all parties are satisfied with the underlying technology and tax rebate, and make any necessary adjustments before moving forward. After the standard has been implemented into all new EVs (five years after the passage of necessary legislation), the USDOT should conduct research to determine how much it must invest (in conjunction with EV manufacturers) for supercharging stations to be as accessible as gas stations by 2050.

Talking Points:

- There is an urgent need to combat climate change and political instability through greater use of electric vehicles.
- Adopting open patents for national EV charging standards will lower EV manufacturing costs and inspire confidence in potential buyers.
- Standardization and large-scale investment in charging stations will increase the utility of EVs and create the framework for widespread adoption, significantly decreasing oil consumption.

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REIMAGINE THE RULES

Increasing Connectivity through Open Education Resources

By Kathy Lin, Major: Policy Analysis and Management '18, Email: kyl34@cornell.edu

Open Educational Resources (OER) offer new opportunities for educators to share quality educational resources that will aid in the parallel efforts for states implementing Common Core State Standards while minimizing cost.

History:

The Common Core State Standards (CCSS) Initiative is an educational initiative in the United States that details what K-12 students should know in English and Mathematics at the end of each grade. This recent initiative seeks to standardize education standards among the states and improve student-learning outcomes so that they will be well prepared to enter either college or the workforce. However, due to the history of individual states' autonomy in implementing standards, fostering common practices as part of the CCSS has been challenging. According to a survey conducted by the Center of Education Policy, finding resources to implement CCSS has been difficult.¹ Twenty-one states cited resource issues as a major challenge to CCSS implementation, and twenty states also faced major challenges in preparing teachers for instructional activities that will meet the new standards. As states and districts begin implementing CCSS, educators are finding that their current materials fall short and there are very few resources available to fill the void.² Open educational resources are openly licensed documents and media that can be freely accessed for teaching, learning, and assessment. These learning materials can be modified and redistributed without violating copyright laws. Since 2012, California, Illinois, Louisiana, Minnesota, North Carolina, Washington and Wisconsin have made strides in promoting OER within their states.³

Key Facts:

- Massachusetts Institute of Technology has been offering OER for over a decade and their research shows that educators use the resources to improve personal knowledge (31%), learn new teaching methods (23%), incorporate the materials into a course (12%), and find reference materials for students (15%).
- Today the cost of having a 250-page book transcribed by hand is about \$250. The cost of printing that same book with a print-on-demand service is about \$5. The cost of copying an online version of that same book is about \$0.0008.
- Studies of teacher professional development programs have reported improved teacher content knowledge as well as improved student learning outcomes.

Policy Idea:

Open educational resources would be highly beneficial in the K12 education system and can be a key strategy for maximizing public funds spent on producing public learning materials. States should allow for more flexible funding to support and promote the development of openly licensed materials, devices, or infrastructure needed to create resources that are aligned with the new standards set by Common Core.

Analysis:

OER allow educators to maximize state, district, and school resources in sustaining an environment that encourages sharing and cooperation. EngageNY open education resources are now being accessed by other states across the country and have been downloaded more than 20 million times⁴, supporting collaboration among educators at a large scale. State and district education budgets can be maximized through the use of materials that are available without licensing and do not have royalty fees, allowing customized content to be delivered to students more quickly and more cost effectively than the current system. Additionally, OER material costs are very low, even when printed. In Utah's pilot programs, resources were printed and provided to more than 3,800 science students at a cost of \$5 per book compared to typical science books, which cost \$805. In a study that examined the effects of 20 middle and high school science teachers who adopted open textbooks, costs were reduced by 40% in the first year and over 50% in subsequent years in comparison to the costs associated with traditional textbooks. Standardized test scores of students using the open textbooks were also examined and were not

found to be statistically different from test outcomes of students who used traditional textbooks.⁶ Costs dramatically decrease because traditional textbooks are perpetually outdated, and as a result, school districts must invest significant portions of their budgets to replace them in order to keep content relevant and high quality whereas OER allows for continuous updates while keeping costs low.

Next Steps:

States first must assess their technology needs and their capacity to expand. Additionally, the lack of digital literacy and insufficient knowledge regarding the uses and benefits of OER poses the greatest challenge to implementation. Consequently, states need to implement professional development programs alongside OER so teachers will be equipped with the proper skills to effectively use and create new resources. This would also likely bolster the reputation of OER among educators, administrators, and stakeholders, aiding in implementation. Formal review processes, as well as peer review, such as crowd-sourced ratings, also need to be established in order to ensure the quality of OER.

Talking Points:

- With the implementation of Common Core, cash strapped school districts and educators are facing the challenges of having to buy new instructional materials to comply with the new state standards.
- Openly licensed educational resources keep content relevant and high quality while also keeping marginal costs low.
- OER empower teachers to create, adapt, and customize their own learning materials without breaking copyright laws and also open doors to collaboration for educational innovation.

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REIMAGINE THE RULES

Reducing E-cigarette and Hookah Use Among Youth

By Andjela Cirko, Major: Biology and Society '18, Email: alc283@cornell.edu

Although the use of cigarettes among youth has declined, the use of e-cigarettes and hookah has increased. Without effective policies and programs addressing the dangers of these products, their increased use may lead to adverse health effects for adolescents.

History:

Preventing tobacco use among adolescents is key to ending the epidemic that exists today. In recent years, although cigarette smoking has declined among adolescents in the U.S., the use of other forms of tobacco products, including e-cigarettes and hookah, has increased dramatically.¹ In 2015, 5.3% of middle school students reported they had used electronic cigarettes in the past 30 days, and 2% had reported a use of hookah. That is an increase of 4.7% and 1% since 2011, respectively. Likewise, 16% of high school students reported using e-cigarettes and 7.2% reported using hookah, an increase of 14.5% and 3.1% since 2011.² Using tobacco products during childhood and adolescence increases the risk of dependence into adulthood and can lead to many health concerns. There have been multiple national, state, and local policies and programs that have attempted to reduce the use of tobacco products in youth. These include increased taxes for tobacco products, prohibiting smoking in indoor work areas, and the proposal of raising the minimum age of sale for all tobacco products to 21. On a more local level, community programs have been implemented to encourage tobacco-free environments and lifestyles.³ Although such policies and programs have been implemented, there has been no significant reduction in the amount of youth using e-cigarettes and hookah. On the contrary, these numbers have increased, creating a younger generation whose decreasing dependence on cigarettes leads them towards other still dangerous products.

Key Facts:

- In 2015, about 3 of every 100 middle school students and 13 of every 100 high school students reported using two or more tobacco products in the past 30 days.
- 80-90% of people who smoke today began during their youth.
- 66% of teens who use e-cigs believe that it is just flavoring. This may be due to the lack of reporting that is required of e-cig companies.

Policy Idea:

Implementing school education programs that reveal the risk of e-cigarette and hookah use, along with including e-cigarettes and hookah in the ban on indoor smoking, would decrease the use of tobacco products among youth. Adolescents have learned through the school system and policies enacted by the government that smoking cigarettes is bad and can greatly damage your health, but the lack of discussion and regulation surrounding e-cigarettes and hookah leads them to believe that it is relatively harmless. This is not made any easier by the fact that companies do not have to report the ingredients of their e-cigs, which include nicotine and toxic chemicals that can be carcinogenic.^{iv} By bringing the discussion to them via school programs and banning e-cigarette and hookah use indoors, the idea that they are harmless can come to an end, and the amount of youth using these products can decrease.

Analysis:

Although this proposal is not an end-all-be-all solution to the epidemic of tobacco product use in youth, it is a step in the right direction. The social environment surrounding e-cigarettes and hookah, promoted by the media/television as well as peers, supports the use of these products. By bringing the discussion to the classroom as early as middle school, communities can effectively educate youth on the risks these products pose. By including e-cigarettes and hookah in the ban on indoor smoking, the culture around it would seem less acceptable and desirable. Keepin' it REAL, a new program for middle schoolers aimed at drug and alcohol abuse prevention, has seen a lot of success since it began in 2009.^v This new program features interactive lessons with stories that are meant to help kids make smart decisions regarding their health. The program saw reduced substance use in 72% of children who participated.⁴

Perhaps a program similar to Keepin' it REAL that discussed tobacco products could be effective in schools, or integrating a discussion on tobacco products could be useful to the Keepin' it REAL program itself. The key to this program is that it is interactive, encouraging students to discuss risks and talk to their classmates. In addition to in-school programs, adding e-cigarettes and hookah to the ban on indoor smoking in public places would most likely lead to a decline in its use. Studies have shown that the rate of smoking in Vermont after banning cigarette smoking in the workplace decreased by 15-20%.^{vii} By creating an environment in which smoking e-cigarettes and hookah in public is frowned upon, it can be expected that the rates of use would decrease as well.

Talking Points:

- Although cigarette use has decreased among adolescents, e-cigarette and hookah use is increasing at alarming levels.
- Integrating discussion of the dangers of e-cigarettes and hookah use into existing programs that have proven effective against drugs may help decrease the rates of use in middle and high schoolers.
- Additionally, working to ban e-cigarette and hookah use in workplaces, restaurants, and hotels will make them see less appealing to youth.

Next Steps:

School officials and policymakers must work together to implement tobacco product education into programs like Keepin' it REAL. Keepin' it REAL is fueled by the Drug Resistance Strategies Project, and is led by principal investigators Michael Heckt and Michelle Miller-Day.^{viii} By getting into contact with these individuals to create lessons on not only traditional cigarettes, but e-cigarettes and hookah, schools can make education for middle schoolers effective. Congress must also work to create a legislative proposal that will integrate the ban of e-cigarettes and hookah into the clean indoor air laws nationwide. In the meantime, work can be made to encourage restaurants, hotels, and other enterprises to discourage the use in the workplace.

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The Ethics of Human Gene Therapy

By Daniel Oudolsky, Major: Industrial and Labor Relations '16, Email: dro32@cornell.edu

In this paper, the author will discuss the current legislation and regulations that exist in regards to genetic therapy. The author will delineate the argument for the need for comprehensive, updated legislation that reflects changing trends in use of genetic therapy in hospitals, clinics and medical centers.

History:

The topic of Human Gene Therapy has become a controversial issue of debate within the policy-making community in the legal, scientific and ethical sense. Essentially, genetic treatment is used to treat, cure, or ultimately prevent disease by changing the expression and makeup of a person's genes. This form of therapy is a novel approach to treat or prevent disease through manipulation of a person's genes. It is in its infancy, with current therapies being primarily experimental and most human clinical trials still in the research stages.

In 1991, Dr. H. French Anderson and his colleagues at the National Institute of Health initiated the first clinical experiment in human gene therapy. Their successful creation and introduction of an artificial human gene into the T cells of a young girl suffering from adenosine deaminase deficiency was the beginning of a new exploration into this novel field of science. One of the first experiments conducted were sickle-cell anemia, hemophilia, cystic fibrosis, muscular dystrophy, familial hypercholesterolemia (high serum cholesterol), and some cancers such as melanoma, cervical cancer, and brain tumors). The idea was already simple and innovative for its time, and such experiments provided a glimpse into the massive positive impacts such a form of medical therapy can have on human health.

Since many inherited diseases are caused by a single faulty gene, gene therapy can deliver the necessary gene to a person's cells, which would then begin producing the missing essential substance. By 1995, there were 106 clinical trials (studies in humans) approved to test gene therapy for some of these diseases, including AIDS in the United States.¹ A number of impressive applications of the new recombinant DNA technology and the molecular pathology of single-gene disorders have been introduced.

In the United States, the Department of Health and Human Services (DHHS) has been charged with oversight of clinical trials. Two organizations within the DHHS, the Office for Human Research Protections (OHRP) and the U.S. Food and Drug Administration (FDA), have been delegated specific authority described in the Code of Federal Regulations (CFR).² All federal investigators must comply with these regulations when conducting clinical gene therapy trials. The OHRP mandates that all research involving human test subjects undergo Institutional Review Boards (IRB) review and approval. Such an IRB is charged with analyzing the risk of the research to subjects and must approve research protocols and informed consent documents prior before beginning a study.

Another DHHS agency, the National Institutes of Health (NIH), oversees the conduct of federally funded clinical trials through a series of guidelines that add additional requirements to those specified in the CFR. Such requirements were established by the NIH through the Recombinant DNA Advisory Committee (RAC) in 1974 in response to public concerns regarding the safety of manipulating genetic material.³ The RAC's responsibilities have evolved over time with scientific understanding and further advancements in this technology. The RAC continues to serve the NIH as a critically important forum for open, public discussion on the scientific, ethical, and legal issues raised by recombinant DNA technology and its basic and clinical research applications.⁴ One such major responsibility of the RAC is to review human gene transfer research on behalf of the NIH. Human gene transfer trials conducted at, or sponsored by, institutions receiving NIH funding for recombinant DNA research are registered with the Office of Biotechnology Activities (OBA) and reviewed by the RAC. This office is

Key Facts:

- Currently, gene therapy is astronomically expensive in the United States.
- Gene therapy can be used to treat both hereditary diseases and infectious diseases.

responsible for the NIH system of oversight of recombinant DNA research.

Policy Idea:

Gene Therapy legislation needs to be updated to reflect changes in US medical research and policy. This legislation needs to be of strong legal backing that ties in closely with the provisions of the ACA and ensures that such treatments can be made more affordable and available for Americans as genetic therapy becomes more widely accessible.

Analysis:

Current legislation in regards to genetic therapy is outdated and antiquated, ever since the US government passed legislation way back in 1974. There need to be updated policies to reflect the rapidly changing field, especially in regards to insurance coverage since the passage of the Affordable Care Act. Initial efforts in gene therapy focused on delivering a normal copy of a missing or defective gene, but current programs are applying gene delivery technology across a broader spectrum of conditions. In fact, about 4,000 diseases have been traced to gene disorders. Current and possible candidates for gene therapy include cancer, AIDS, cystic fibrosis, Parkinson's and Alzheimer's diseases, amyotrophic lateral sclerosis (Lou Gehrig's disease), cardiovascular disease and arthritis. There are also some concerns that may arise from use of genetic therapy. It is quite evident that changes need to be implemented to respond to such sweeping changes in the applicability and power of medical research- most broadly in the federal level. In order for gene therapy research to accelerate faster, it is important to attract private investments and funding. If the public is informed and there is indeed political benefit, policymakers should introduce regulations that control against spiking healthcare costs of gene therapy or apply anti-monopoly laws to encourage competition amongst firms that will provide gene therapy.

Next Steps:

- Create a tri-lateral committee of policy-makers, doctors and medical insurance business leaders that can conduct the proper research to analyze what policy initiatives need to be passed. Consult with relevant policy think-tanks and consulting firms to provide insight as well.
- Conduct hearings and testimonials in US Congress where this aforementioned committee will present their findings to lawmakers.
- Consult with HMO's and insurance providers to best analyze how genetic therapy can be best utilized within current federal/state legislation such as the Affordable Care Act.
- Once a bill is passed into law, ensure that there is smooth implementation amongst the various governmental agencies that regulate genetic therapy such as the FDA and NIH.

Endnotes:

1. Balbyshev, Nikolay. "Priorities of Gene Therapy." <https://www.ndsu.edu/pubweb/~mcclean/plsc431/students99/balbyshev.htm>. N.p., n.d. Web. 30 Apr. 2016.
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Talking Points:

- Gene Therapy has been found to be discovered to be a form of treatment for thousands of diseases and ailments linked to genes.
- Such therapy being adopted for widespread clinical use in hospitals and clinics will lead to hundreds of thousands of dollars in saved medical costs in the future
- This will also lead to higher economic output and healthier population

Online Voting Initiatives: Bringing Voting into the 21st Century

By Anna Kambhampaty, Major: Communications '19, Email: apk56@cornell.edu

The New York State Board of Elections should establish and fund a committee to develop an online voting system, while making sure all voting data is secure and having the ability to authenticate users effectively.

History:

In the 2014 elections, New York's turnout was only at 28.8 percent, the fourth-lowest in the country, despite three statewide races (including the governor) and 27 House races. Looking at other states' elections in 2014, we can see that when voting is made easier, turnout increases. Colorado switched to a mail ballot system in 2014, and, in turn, had the fourth-highest turnout in the nation. Oregon, which votes by mail as well, had the fifth-highest turnout. Washington State, with a similar system, did better than the national average, despite the fact that it had no major statewide races. Because voting determines the outcome of

elections and, thus, who leads our nation, this issue of low voter turnout affects everyone in the United States as well as those in other countries since foreign policy can be affected by voting habits. Election turnout is low, in part, because of how difficult it is for many people to get to their polling locations. Moreover, setting up polling locations all over the state is incredibly expensive. It was estimated by the Voting Technology Project (VTP) that \$1 billion was spent by local governments in 2000 on election-related functions, excluding some large procurements of new equipment. By funding projects and research to establish an online voting system in the United States, we could increase voter turnout, increase efficiency in determining election outcomes, and save money.

Policy Idea:

By establishing and funding a committee with the sole purpose of developing and researching online voting, we can ensure that the system developed can remain secure from breaches and hacks and maintain an accurate user-identification and authentication procedure.

Analysis:

Today, everything from billion dollar financial transactions to college applications are done through the Internet. The Internet is especially useful in increasing the efficiency of many everyday procedures and processes. Though the initial cost of developing and implementing an e-voting system will be high, once it is in action, it has the potential to save \$1 billion each year while saving time and transportation costs for hundreds of millions of Americans. It

is proven by the high turnout rates in Colorado, Oregon, and Washington that when the voting process is easier, registered voters participate more. By voicing their opinions through their votes, these citizens are making a difference for themselves and exercising their democratic rights. Also, since Internet access is more widespread, more time-efficient, and more available than individualized polling locations, those who cannot vote on election day because they have to work or cannot afford or find transportation, can now vote in just minutes from any place that has Internet access.

Key Facts:

- In the 2014 elections, New York's turnout was only at 28.8 percent, the fourth-lowest in the country, despite three statewide races (including the governor) and 27 House races.
- States with voting systems that make the process easier have much higher turnout rates, like Colorado, which switched to a mail ballot system in 2014, and, in turn, had the fourth-highest turnout in the nation.
- It was estimated by the VTP that \$1 billion was spent by local governments in 2000 on election-related functions, excluding some large procurements of new equipment.
- With about 100 million voters in the 2000 general election, the cost was about \$10 per voter.

Talking Points:

- The US government should be funding projects and research to establish an online voting system in the United States
- Such a system could increase voter turnout, increase efficiency in determining election outcomes, and save money spent on elections.
- A secure e-voting system would bring voting into the 21st century and allow our democracy to perform at a higher level of productivity by giving more people voices through their votes.

Next Steps:

The New York State Board of Elections would be responsible for choosing, supervising, and funding the committee to develop the online voting system. The policy change would gain support from members of the tech community as well as those who have wanted to vote in the past but were not able to because of time or transportation constraints. Companies such as Apple, Google, and others that specialize in technological innovation would most likely support this policy. Opponents would include older generations, those who do not trust and are fearful of Internet and technology changes, and those opposed to increasing voter turnout.

Endnotes:

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The Case for Education in the Juvenile Justice System

By Kelly Xu, Major: '18, Email: kyx3@cornell.edu

In comparison to adult prisons, juvenile detention centers offer incarcerated youths a more viable pathway to becoming better contributing members of society after leaving the facility. However, this potential is not fully being capitalized on due to poor and severely outdated educational standards in the juvenile justice system.

History:

Juvenile detention centers are often seen as favorable alternatives to adult prisons, where teenagers are more likely to become victims of sexual abuse or commit suicide. Many incarcerated individuals under the age of 18 come from troubled circumstances and families to begin with. Children who experience child abuse and neglect are 59% more likely to be arrested as a juvenile and 30% more likely to be charged with violent crime.¹

Proper education can serve as a lifeline to help these people escape the cycle of poverty and abuse they grew up with. Juvenile facilities offer a range of programs including remedial education, religious services, counseling, career planning, etc. Some detention centers employ full-time teachers giving lessons in math, science, social studies, and English.² However, there are vast inconsistencies in the quality of education being provided and the curricula being taught in juvenile facilities across the United States. A 2009 Federal study found that youths were not making much educational progress during their stay in detention centers.³ Upon leaving, just 25% of students were planning to re-enter public schools. Furthermore, only 9% of students ages 16 to 21 in such facilities were on track to earn a GED or high school diploma. A very small minority, specifically 2%, ended up matriculating to two- or four-year colleges.⁴

Policy Idea:

There should be standardization of educational standards and curricula in juvenile detention centers across the United States. A 2010 Federal study found that 30% of youths in juvenile facilities had learning disabilities and 45% had trouble paying attention.^v As a result, teaching plans should be specifically tailored to students with special needs. There is currently little to no educational technology being incorporated into the curricula. Every state should ensure that facilities have a minimum amount of updated technological equipment such as computers and basic software programs. States can follow up with regular inspections to make sure that such rules are being enforced in facilities. Giving youths in juvenile detention centers a proper education can increase their job prospects, which is not only good for them, but also good for society as a whole. Increased access to education and employment opportunities can help reduce recidivism rates.

Analysis:

So far, most of the policies that have been implemented in the juvenile justice system involve detention alternatives and reducing detention populations. Some alternatives to juvenile facilities are supervised release programs like home detention, electronic monitoring, and local treatment options.^{vi} New Mexico and Colorado have adopted juvenile risk assessment instruments, which are used to determine whether juveniles should be placed in detention centers. A number of other states have established laws limiting which criminal offenses qualify for

Key Facts:

- 70,000 youths are in custody in juvenile detention centers across the United States on any given day.
- According to a 2010 study, two-thirds of youths in U.S. detention facilities were people of color: 41% African-American and 22% Hispanic. 87% percent were male.
- 70%-80% of all individuals released from residential juvenile detention facilities will return to jail after two or three years.

Talking Points:

- There is a lack of adequate educational standards and technology in the juvenile justice system, which negatively impacts detention populations.
- Youths can benefit from receiving a better education in juvenile detention centers by being more prepared for educational pursuits and job opportunities in the future.
- An educational pathway out of poverty and abuse can lead to lower recidivism rates, which is good for society as a whole.

detention. Maryland's juvenile code, for example, now prohibits the detention of individuals who can count the possession of marijuana, disorderly conduct, prostitution, drug possession or theft as their most severe offenses.⁷ There are little to no reform efforts solely dedicated to improving the quality of education being offered inside juvenile facilities. As a result, educational standards and curricula are vastly outdated and seriously lacking in preparing incarcerated youths for a meaningful future.

Next Steps:

There needs to be effective communication and coordination between public schools and the juvenile justice system. Officials need to brainstorm and develop a plan moving forward that prioritizes the role of education in juvenile detention centers. Instead of finding ways to keep detention populations low in order to cut costs, administrators should view detention centers as an opportunity to rehabilitate and refocus troubled youths. States should aspire to follow the example set by the Maya Angelou Academy in a juvenile facility located in the District of Columbia.^{viii} Teachers there provide personalized instruction and are expected to incorporate special education services into their lesson plans.

Endnotes:

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2. <http://www.livestrong.com/article/249313-the-purpose-of-a-juvenile-detention-center/>
3. <http://www.edweek.org/ew/articles/2014/04/17/29justice.h33.html>
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6. http://www.ncsl.org/documents/cj/juvenile_detention_legislative_reforms.pdf
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8. <http://www.nytimes.com/2014/04/21/opinion/the-next-juvenile-justice-reform.html>
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10. <http://www.edweek.org/ew/articles/2014/04/17/29justice.h33.html>
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Unchecked Market Risks: Controlling High Frequency Trading

By Nicholas Curcio, Major: Policy Analysis and Management '19, Email: njc68@cornell.edu

Computer automated high frequency trading poses a systemic risk to the stock market; the United States government must adopt the High-Frequency Trading regulations suggested by SEC and CFTC joint committee in order to prevent dangerous market volatility and criminal behavior.

History:

The rise of computers and information technology has drastically changed the nature of investment. High frequency trading (HFT) is the practice of supercomputers buying and selling stock within nanoseconds for quick profit, based off of complex algorithms.¹ The United States Securities and Exchange Commission authorized

electronic exchanges in 1998, and as technology has progressed since the inception of High Frequency Trading, latency rates -- the time lag between the buying and selling of a stock -- have decreased from several seconds to virtually nothing, allowing HFT firms greater liquidity and profitability.² The presence of HFT became very real for the American public on May 6th, 2010, the date of the infamous "Flash Crash" - in which the Dow Jones Industrial Average Dropped 998.5 points (9%) in 36 minutes, only to rebound most of its value within hours.¹ In a joint SEC/CFTC report about the day's events, illegal manipulation of futures and equity prices by High Frequency trading firms that sparked widespread HFT algorithm errors was found to be the culprit.³ High-frequency trading is so dangerous because an unanticipated system failure or more nefarious criminal activity can evaporate trillions of dollars in wealth in minutes. This volatility could destroy investor confidence, or worse, trigger a massive selloff.

Policy Idea:

The United States should adopt the proposed SEC/CFTC High-Frequency Trading Regulations⁴ including:

- the implementation of minimum quoting requirements by market makers;
- restrictions on co-location and direct access;
- Thorough algorithmic testing to reduce the risk of malfunction;
- liquidity rules such as penalties for rapid order cancellation; and
- a request for further study and potential regulatory changes.

Analysis:

The United States' existing regulatory infrastructure is designed for a paper and pencil economy, not one dominated by supercomputers. This regulatory failure has allowed modern unethical practices like quote stuffing and spoofing - attempts to hurt other firms' competitive edge by entering and then canceling large stock orders -- to occur largely unchecked in the United States. Other nations have taken more drastic measures. Italy has imposed a .02% tax on trades that occur in under 5 seconds.⁵ The European Union as a whole passed a series of trading laws in 2014 dubbed MiFID II/MiFIR. These regulations place controls on venue pricing that "penalize excessive order messaging, require market making agreements on said venues, and control minimum tick size".⁵

A specific, comprehensive regulatory statute targeting high-frequency trading is necessary to prevent the next flash crash and restore market confidence. According to an estimate from Frederi Viens of Purdue University,

Key Facts:

- High Frequency trading accounts for approximately 70% of Wall Street Traffic
- In the early 1960s, the average stock was held for 8 years. Today it's about 20 seconds
- Technical failures and criminal activity can create "Flash Crashes", in which trillions of dollars can be lost in minutes

Talking Points:

- High Frequency Trading can create dangerous volatility in financial markets
- US Regulatory Law has not caught up with advantages in trading technology

profits from HFT in the U.S. has been declining from an estimated peak of \$5bn in 2009, to about \$1.25bn in 2012.⁶ This decline in profitability may be in part due to fines to firms that engage in illicit behavior, in combination of the crowding out of the HFT market. However, the losses incurred to HFT firms are paltry in comparison to the benefit of risk aversion stemming from regulation. Large flash crashes like that of May 6th, 2010, and later August 24, 2015 can evaporate nearly a trillion dollars in minutes. Worse still is the looming threat of a flash crash that isn't just a flash, but one that triggers a recession or depression style sell off and could tank the global economy. Inaction may be the greatest risk of all.

Next Steps:

The United States Congress should pass a bill that mirrors the SEC/CFTC proposed regulations on High Frequency Trading. High Frequency Trading lobbies such as the Modern Markets Initiative and the Principal Traders Group will oppose the bill, and have been known to spend nearly \$1,000,000 dollars annually to block regulations on the industry.⁷ High frequency trading is a largely partisan issue: prominent Democrats Hillary Clinton and Elizabeth Warren are both outspoken critics of HFT, but many House Republicans are on record in defense of limited regulation. Passing such a bill through a Republican-dominated Congress may not be feasible. A sweeping victory for Democrats in the 2016 Presidential and Congressional elections may be what is needed to alter the existing political capital paradigm and make meaningful strides in controlling HFT.

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2. "Patience and Finance" (PDF), Bank of England, Sep 2, 2010, retrieved Sep 10, 2010
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Preventing Mississippi's Youth From Becoming a Generation of Non-Internet-Natives in an Internet-Native World

By Agrippa Kellum, Major: Information Science '19, Email: ask252@cornell.edu

Enhance exposure to computers and the internet for Mississippi youth by allowing middle & high school students to access computer labs after school and promoting technological literacy necessary for participation in the modern workforce.

History:

Due to the difficulty of providing modern technological infrastructure to rural areas in addition to Mississippi's widespread poverty, the average household in Mississippi is less likely to have computer or internet access than in any other state.

Unfortunately, this leaves young Mississippians unprepared to compete in a workforce that demands technological literacy. This forms a vicious cycle: firms do not have an incentive to build where the workforce cannot accommodate their needs, but this leaves Mississippi ever-more technologically isolated from the rest of the country and makes the harms of failing to adapt less visible.

As the cost of private computing and internet access is lowered over time, conditions will improve. Until then, however, measures must be put in place in order to prevent Mississippi's existing inequalities from deepening.

Policy Idea:

The plan is to set up after-school access to computer labs for students in public middle schools and high schools. For schools where such labs do not exist or are not available, resources would be spent to build a low-cost computer lab.

Students would be allowed to spend their free time after school in the computer lab using the computers for whatever they please (including social media) while under the supervision of staff or volunteers.

Analysis:

There are a variety of ways to enhance computer and internet access for Mississippians. This can be done through both public and private contexts. While it would obviously be ideal to place an internet connected computer in the home of every student, more economically efficient solutions are necessary until the associated technology is inexpensive enough.

Another public solution would be enhancing access to public library computer labs. However, this would be less efficient in poorer and more rural communities— the very communities this policy would hope to most assist— that may not already have public libraries. Even in the presence of a library, families in these communities would often have difficulty providing transportation for a student's visit. Lastly, a library currently has no expectation to supervise a student— which would likely be a concern for any extended stay, as parents would rarely be able or willing to devote so much time.

Students are already transported to and from schooling every weekday, and it is typical for schools to utilize a second wave of bus departures in order to accommodate students staying after school. Computer labs require less staff attention than classrooms, and could easily be assisted or even entirely managed by volunteers. An additional appealing factor of the in-school access approach is that it can succeed even in situations where technology access may not be valued by the student's family. Lastly, students would be able to engage computing in the context of their existing social networks, rather than having to isolate themselves.

Key Facts:

- As of 2013, 20.0% of Mississippians live in households without computers.
- 37.7% of Mississippians do not have internet access to high-speed internet in the home.
- These figures are lower for Mississippi than for any other state.

Talking Points:

- While the rest of today's youth grow up as Internet natives, youth in many Mississippi households are left behind.
- Allowing after-school access to pre-existing computer labs is a cost-effective way to allow these students to catch up.
- Failure to do so risks deepening existing inequality of opportunity within the state in a lasting way.

Educational computer programs could be provided for students, but the aim is primarily to allow them to build familiarity with the internet on their own terms as they would in a household where Internet access is present. However, in the presence of such a lab, instructors could be less hesitant about giving students computer-dependent assignments and thus give students more exposure to computing in an educational context as well.

Next Steps:

Implementation could be facilitated both by the Mississippi Department of Education and by schools themselves. As such, working with both will be an important step towards completion. Peer mentoring organizations, such as Big Brothers Big Sisters of Mississippi, could be leveraged for providing supervision during the after-school programs. In particular, we should target school districts in the Mississippi Delta; the most historically impoverished region of the state.

Funding, especially where new computers need to be purchased, would likely need to come from the Mississippi Department of Education. Community fundraising should also be leveraged. However, for schools that do not need new materials, volunteering and small monetary incentives for existing staff should be all that is needed to run the program. The program could also be easily and effectively merged with existing after-school tutoring programs if any are present, as students should not need much direct supervision.

Endnotes:

1. <https://www.census.gov/history/pdf/2013computeruse.pdf>



Meet the Science & Technology Center



Arielle Tannin

Arielle is a sophomore majoring in Information Science in the College of Arts and Sciences. She is interested in the intersection of emerging technologies with public policy and hopes to explore ways in which design can make a positive impact on society. On campus she is a project director for the Sustainable Education Ghana project on Cornell University Sustainable Design and a brother of Kappa Alpha Pi.



Chad Stephenson

Chad Stephenson is a Junior in the ILR School. He transferred to Cornell from Oklahoma City Community College in Spring 2015. Outside of Roosevelt, Chad serves as the transfer representative in the ILR Student Government Association, and as a Science & Technology Analyst in Cornell International Business Association. His interests include politics, economics, emerging technology, sociology, and specialty coffee.



Kathy Lin

Kathy is a sophomore from the San Francisco Bay Area majoring in Policy Analysis & Management. Outside of Roosevelt, Kathy works in the Human Ecology Career Office and also conducts research under PAM faculty to explore the effects of the Affordable Care Act on childless adults. She is especially interested in policy's role in designing technology for social impact and will be experiencing this first hand this summer with the Department of Education's Office of Educational Technology.



Andjela Cirko

Andjela is a sophomore in the College of Arts and Sciences majoring in Biology and Society and minoring in Policy Analysis and Management. Outside of Roosevelt, she is a part of Cornell University Emergency Medical Services, Cornell Ambassadors, and does research. Andjela enjoys discussing science and health related topics, and is passionate about public health policy.



Agrippa Kellum

Agrippa Kellum is a freshman studying Government and Information Science. He is interested in the ways technology shapes human networking and community formation.

Meet the Science & Technology Center



Daniel Oudolsky

Daniel is a current senior at the ILR School. He hails from Brooklyn, NY. At Cornell, Daniel is involved in WVBR 93.5 FM and cornellradio.com, CIBA and CIAS. Daniel greatly enjoys discussing foreign policy, current events and topics on science, technology and futurology.



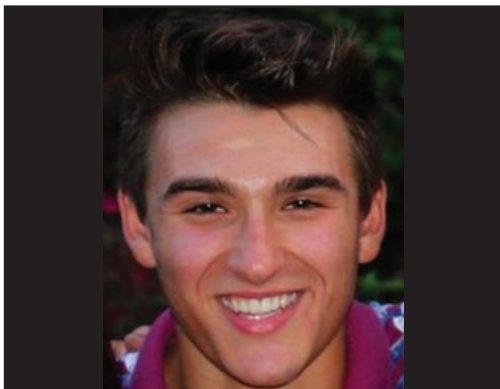
Anna Kambhampaty

Anna is a freshman in the College of Agriculture and Life Sciences studying Communication and Information Science. She joined the Roosevelt Institute this fall as a policy analyst. Anna serves on the executive board for the Cornell Democrats and is part of the Beekeeping Club. She has interned as for the Syracuse University Physics Lab, Minimill Technologies Inc., and former Congressman Dan Maffei's 2014 congressional campaign.



Kelly Xu

Kelly Xu is a sophomore from New York City and is currently enrolled in the Dyson School of Applied Economics and Management at Cornell. On campus, she is a member of the Cornell Roosevelt Institute, Forte Cornell, Social Business Consulting, and Ho-Nun-De-Kah CALS Honor Society. She enjoys visiting art museums, swimming, and reading in her spare time.



Nicholas Curcio

Nicholas Curcio is a freshman Policy Analysis and Management Major with a minor in Business. He is interested in studying market psychology and behavioral economics, and is especially interested in the field of artificial technology and the implications it will have on our world.



Elizabeth Zelko, Director

Elizabeth is a senior in the College of Arts and Sciences majoring in Computer Science. Her focus is mainly on cybersecurity and databases as well as data analytics and data journalism. Her policy interests include cybersecurity, data privacy, and cyber harassment. After graduation she will be moving to New York to work in information security as a Technology Analyst at Morgan Stanley.



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