Dear Debater,

Congratulations on taking your first step towards becoming a full-fledged Varsity Debater. Doing original research is the defining feature of our Varsity Division and it is one of the most valuable skills you will ever learn in debate. We are confident that the skills you learn in this packet you will be using in college, graduate school, and as a professional!

Specifically, this guide focuses on organizing and researching original, complex, nuanced, yet highly comprehensible and persuasive arguments. Your focus in your research should be on quality, not quantity of arguments. In fact, the practice of strategically deciding what your best evidence is will serve you well later on. Sometimes you don’t even have 8 minutes to win over a business partner or a professor AND you definitely will not be able to convince them at 300+ words per minute. As a result you will learn to weigh out arguments strategically to both maximize comprehensibility for lay judges and to create sophisticated storylines and clash for the Asad Asad’s out there.

As you start to use this research guide please keep in mind that research, card cutting, and argument construction takes time to become efficient and excellent at. In fact, the first time you cut your own DA and Affirmative Case you should expect that it will take you double or triple the amount of time it will take you the second time around. Also, realize that after the first time you run your own original DA or affirmative at a tournament that you may need to go back after the rounds to tweak, reconstruct, or reframe your position. However, once you have created an effective, refined, and original argument you will begin to enjoy the benefits of and pure satisfaction of being an expert in your position.

Again, congratulations on taking the next step forward in your debate career and in your preparation for college, graduate school, and your future vocation.

Sincerely,

The Boston Debate League Team
Quick Links to Each Section

Making Your First Disadvantage

Affirmative Case Starter Pack

Appendix
A disadvantage will be your best friend when you are on the negative. The argument gives the negative team the necessary offense to prove that the affirmative worsens conditions in the status quo. Having multiple disadvantages ready to run gives the negative team multiple options for leverage against any affirmative plan; a unique, self-created disadvantage is particularly advantageous.

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Creating a Story

When creating a disadvantage, you must first consider the affirmative plans that are within the framework of the resolution. To create a disadvantage, you must have a story to tell which places the affirmative’s plans as the centerpiece.

For your story to be strong as a whole, it must have strong connections between each part. Most Varsity-level disadvantages have 3, and some have 4 parts: uniqueness, link, (internal link,) and impact. By researching texts that contain strong warrants for each part of a disadvantage, it will stand as a durable story that will be very persuasive in debate rounds.

Working from the Resolution

Although you do not know the exact plan text you will encounter in a round, you do have one clue: the resolution. The resolution is not only the framework for most affirmative plans, but also guides how the negative thinks about offense. The resolution will always either be a foreign or domestic issue. In this guide, you will learn how to make disadvantages which are as generic, yet accurate, as possible.

If the resolution is a domestic issue, it is usually very general (i.e space exploration or transportation). Domestic issues are a little easier to think of offense for since there is always one party who you know will be affected: Americans. Under a domestic resolution, you must find negative impacts of enforcing any policy that fits the resolution. For example, if the resolution calls for an increase in social services for people in poverty, you must think about what bad things may happen as a result of increasing social services.

Flow Chart 1: Domestic Resolution

If the resolution pertains to foreign affairs, creating disadvantages becomes slightly trickier. Usually a foreign resolution will deal with a specific issue in specified countries and regions.
To come up with a disadvantage under these resolutions, you should find negative impacts dealing with that specific issue in each country or region involved. For example, in the case of whether or not the U.S. should substantially increase economic engagement towards Cuba, Mexico, or Venezuela, you could identify negative impacts to increased economic engagement towards each of the three regions. These ideas will be the base of your disadvantage!

Yes, this seems pretty overwhelming. As long as you ask yourself the right questions, you can tackle any topic. How you determine the right questions can be as easy as working your way across the flow chart:

The same principle can be applied to the foreign resolution. However, there is a small caveat: for each branch stemming from domestic interests (economic, social, and political) there sometimes exists and individual affect for each region of the resolution. Instead of asking yourself “What kind of political barriers exist when dealing with these policies?" you
would say something along the lines of “What kind of political barriers exist when dealing with these policies in this particular country or region?”

When you get to particular countries or regions, you want to ask yourself: “How is the political/economic/social climate in the country or region affected by these policies being implemented in this region?”

**Note:** Other nations that are not part of the resolution can also be considered. As you research you may stumble upon some pre-existing international ties a country or region has. Try to think about how the plan could negatively impact that relationship and how that could hurt the US or that country/region.

**A Quick Breakdown**

That was a lot of information to swallow. One the next page is one way that can help you get to more tangible statements and inquiries. If you want to try this out for yourself you can find it in Appendix A.

The example is more or less how to approach these questions. You don’t complete sentences, just ideas. Don’t feel bad about having to leave one empty. Not every question has an answer worthy of a disadvantage story, if they have one at all.

No one is expecting you to have a solid knowledge base on the resolution right away. A quick search of words in the resolution you are unaware of, as well as a search through news sites for the latest information on the topic can help you start brainstorming. Don’t worry about doing any in depth research. It all depends on how familiar you are to the topic and how nuanced it is. Having the gist of the resolution may be enough for you to move into the phase of creating a uniqueness argument.
DOMESTIC RESOLUTION (EXAMPLE):
Resolved: The United States Federal Government should substantially increase social services for people in poverty.

How does an increase in social services affect/influence the international community?
Not quite sure...

What political issues currently touch upon an increase in social services?
Most republicans don’t want to see an increase. Many of them are currently cutting them as much as possible.

How can an increase in social services affect the economy?
We are spending money. It all depends on how much. **Look up spending issues.**

What kind of social issues arise out of an increase in social services policies being implemented?
Hmm...I guess it can be social or political...but there could be backlash from people who see large increases in social service as a step toward socialism.

Affects taxpayers
Some people may be less interested in donating to charities (Charity Trade-off DA?)

BOSTON DEBATE LEAGUE
Try it on your own! Click here to practice “Storyline Exercise!”s
UNCOVER THE STATUS QUO: UNIQUENESS

Once you have a general topic for a disadvantage, you must begin by creating a uniqueness argument. This part is the foundation for the story. The uniqueness establishes that the status quo is preventing the impacts you argue. In other words, everything is going great until the affirmative ruins it. The tricky part here is that this piece of the story must always be up to date and recent. As we know, current events rapidly change, so the status quo will not always remain the same. The uniqueness story of your disadvantage might not be the same as it was the time you first formed it. Once you have the story down and you begin researching evidence for your disadvantage, always look for the most recent updates. You never know. Some of them may fall in your favor.

WEAVE IN THE AFFIRMATIVE: LINK

Once you have the status quo, you have to demonstrate how the affirmative plan changes the status quo. You must prove that the affirmative plan triggers a change from the status quo that ultimately causes your impact. So, the next piece in the story is to show a clear link between the status quo and the impact through the implementation of the affirmative plan. To do this step, you must ask yourself what happens once the affirmative plan is implemented. Initially, you do not need to have case specific links, but once you get further into your research, that is something to consider.

WORST CASE SCENARIO: IMPACT

Now it is time to make this story worth telling. As of now, you should have all the steps developed to tell a clear story of the disadvantage. The impact is the offense of your disadvantage; it is what you will use to show exactly how the affirmative worsens the status quo. With the story you created, the impact should fit right in and end the story strong. Get creative, but not too creative. While you want to have the most compelling story in the round it also needs to be the most believable. At this point in your debate career, you are accustomed to hearing plenty of solid impact arguments in debate rounds.

COMMON IMPACT SCENARIOS:

- Global Nuclear War
- Economic Collapse
- Global Climate Change
- Extinction
- Dehumanization

To get to the impact of your story, you must demonstrate a link between how the affirmative plan affects your issue and your impact. While it may be clear to you how the affirmative causes the impact, you need to be careful of skipping the stepping stone in between, the internal link, when you are telling your story to others. This part of the story is set to make the path towards the impact much more understandable.
THE CRUCIAL INTERNAL LINK

You have now woven a beautiful tale of mass destruction. But now it’s time to take a step back and ask yourself the crucial question: Does it actually make sense? By now, you are aware of the three typical parts to a disadvantage: uniqueness, link, and impact, now you must also be aware of the very strong fourth component which properly connects the link and the impact: the internal link. This card isn’t always clearly labeled as an internal link in the BDL Packet, but don’t worry, it has been there the whole time.

The internal link demonstrates a connection between how the affirmative’s effect on the status quo causes your impact. The internal link adds much more to your story; it adds a missing link that could end up being a detrimental hole in your disadvantage. Although you do not need the internal link to have a complete disadvantage, it serves as a part that clears up confusion about the story you formulated.

Just to bring the point home, here’s an example of a poorly constructed US-China Relations disadvantage story:

<table>
<thead>
<tr>
<th>Uniqueness</th>
<th>China is currently expanding space projects that are pivotal to their economy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link</td>
<td>By expanding U.S space exploration programs, China will feel threatened. They will perceive the U.S space programs as infringing upon their economic utilization of space.</td>
</tr>
<tr>
<td>Impact</td>
<td>A global economic collapse will lead to global war!</td>
</tr>
</tbody>
</table>

Wait. What? This disadvantage really needs this internal link between the link and impact:

| Internal Link     | If China feels threatened by the U.S, their tensions will rise and relations will worsen. The China-US relationship is crucial to the world economy. Any change in these relations will result in global economic collapse. |

The bottom line here is that you shouldn’t be afraid to add an extra step to your disadvantage shell in your first telling of the story so that it makes sense. Remember, you are introducing this in the 1NC; you have three other speeches to further explain the argument.
On that same note, you should not have too many major internal links in your story. If it takes you more than two cards to explain the internal link, you may need to rethink the impact you chose.

**Disadvantage Story Examples**

Once you have all the four pieces in mind, creating a table would be very helpful. Below are examples of constructing stories for different disadvantage scenarios:

### Economy/Spending

<table>
<thead>
<tr>
<th>Uniqueness</th>
<th>As of right now, the US economy is currently improving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link</td>
<td>The affirmative plan costs a lot of money!</td>
</tr>
<tr>
<td>Internal Link</td>
<td>Spending money now with the economy slowly recovering will result in economic instability and even an economic collapse.</td>
</tr>
<tr>
<td>Impact</td>
<td>An economic collapse in the United States would devastate the entire globe, resulting in a global economic collapse. A global economic collapse would cause turmoil across the world, resulting in war.</td>
</tr>
</tbody>
</table>

### Politics

<table>
<thead>
<tr>
<th>Uniqueness</th>
<th>Currently, Obama has bipartisan support to push a Comprehensive Immigration Reform through Congress.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link</td>
<td>The affirmative is unpopular with the GOP; it drains political capital.</td>
</tr>
<tr>
<td>Internal Link</td>
<td>If Obama cannot pass a Comprehensive Immigration Reform, the US economy will be affected negatively.</td>
</tr>
<tr>
<td>Impact</td>
<td>If the US economy collapses, the world economy will collapse. This will result in war.</td>
</tr>
</tbody>
</table>

### Create Your Own Disadvantage Story

<table>
<thead>
<tr>
<th>Uniqueness</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Link</td>
<td></td>
</tr>
<tr>
<td>Internal Link</td>
<td></td>
</tr>
</tbody>
</table>
Impact
RESEARCHING

Researching is essential to developing a strategic, successful disadvantage. It requires more than a quick 2-minute search. Without adequate effort placed in this step, you will find running and defending the argument difficult; your disadvantage may be incomplete and/or riddled with logical flaws. The beginning of the research step is not a cue for you to stop thinking about how to further to refine your story line. In fact, even if you have not developed a perfect story, you can still move forward to this step; through further reading, you will better understand how your argument’s story should be explained.

THE HUNT

Useful articles are not going to fall in your lap. You need to work for them, hunt them down. An important skill in researching is understanding how to cast a wide net and narrow it all down towards the end. Don’t worry about information that does not appear to be right on the money; you can always whittle it down later. It’s better to have more than enough information then to recall an article you read a while ago, but decided too early on that you did not need it. Patience and organization are also important to the success of your research. Without these, your time spent researching will be wasted.

CAST A WIDE NET

Starting your search more broadly is the best approach to researching an unfamiliar topic. Chances are if you start off to narrow your search to early on when you do not know the optimum key words/terms of art, it will be reflected in your results. Starting off broad will give the opportunity to get familiar with the terms of art of the field and the relevant issues. It also lets you as many perspectives on the issue you are addressing. Perhaps, after exploring the issue from a broader perspective will allow you to go back and revise your disadvantage story. The more you read, the more effectively you will be able to narrow down the search.

Pay close attention to words and phrase that you see repeatedly. These terms will lead you to searches that are more accurate to what you want to find. You would be surprised at the huge difference your choice of wording can make:

United States is running on a deficit.
VS.
America owes a lot of money.

PATIENCE

If this is your first time doing heavy-duty debate research, then you will most likely not find anything especially valuable in your first twenty minutes of searching. Yes, twenty minutes. If you do find plenty of sources, good for you; you still need to dedicate more time to digging
Making Your Own Disadvantage

Making your own disadvantage deeper. The best debate evidence does not come from shallow searches. You have to put in the time and effort to venture as deep into the topic as possible.

If you feel as though your research is still going nowhere, you may want to consider switching up your search terms. Sometimes the smallest change in search terms sends you to exactly where you want.

**Pro Tip:** You should never spend five years reading one source. Skip around an insanely long article by using the pressing CTRL+F (COMMAND+F for Mac users). Then type in the word or phrase you expecting to find (usually key terms from your original search). This will bring you to every instance where that word or phrase is used. If you are reading an article on global warming and you only care about the part that talks about harp seals then just type “harp seal”, “seal” or any word someone would use to refer to it.

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**Organization**

While you are researching you will encounter many potentially useful articles. None of this will matter if you do not keep track of all of them in an organized manner. There are two very useful ways to stay on top of your documents.

**On the Computer**

If you are taking advantage of digital resources, such as articles and journals, then you want to create file folders on your computer. You can do this anywhere on your computer:

- Create a folder; label it “Debate”
- Go into this folder and create two more folders: “Affirmative” and “Negative”
- From this point, it is up to you what subfolders you create within those two. (It all depends on what kind of arguments you run and need answers to.)
- If you find it useful, you can create folders for each part of the disadvantage.

For your disadvantage research, you need two basic folders: “[Name of DA]” and “Answers to [Name of DA]”. As you research, you are going to come across information that goes with and against your argument. You want to keep both.

**Pro Tip:** Make sure that when you are saving files, that the name of the file is something you can identify and understand later. If anything, the title of the file can have a hint to the exact thought you had when you decided to save it. For example, if you are researching a disadvantage link and an article from Reuters that immediately makes you think of the perfect trap for a “Cuban Oil” affirmative, then you could title the file “Cuban Oil Link - Reuters”. Once you open the file, you can still access specific information about the article. This practice saves you some time later if you need to look at a particular argument first.
PRINTING DOCUMENTS

If you plan on printing anything out, your best bet is to keep multiple, clearly labeled folders. Color coding the folders would further help in finding your documents. For the purposes of this section, your folder line up may look something like this:

→ In one color (ink or folder)
  o [Name of DA] – Uniqueness Research
  o [Name of DA] – Link Research
  o [Name of DA] – Internal Link Research
  o [Name of DA] – Impact Research

→ In a second color (ink or folder)
  o Answers to [Name of DA] – Uniqueness Research
  o Answers to [Name of DA] – Link Research
  o Answers to [Name of DA] – Internal Link Research
  o Answers to [Name of DA] – Impact Research

This is a pretty detailed list. However, you need to get as detailed as needed to keep track of and stay organized with these folders. The last thing you want is to have to back track to find misplaced articles.

GETTING THE MOST OUT OF GOOGLE SEARCHES

Google isn’t human. Although it may feel as though the search engine is reading your mind, this is not always the case. Sometimes, Google needs extra help from its users to generate the results it believes he/she is looking for. When using Google, there are several things to keep in mind:

<table>
<thead>
<tr>
<th>Eliminate Extra Words</th>
<th>Don’t Ask Google a Direct Question</th>
<th>Take advantage of syntax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most times, Google does not need grammatical items such as articles (a, an, and the) or punctuation to do a search. For instance, instead of typing “Tuition price for Yale University”, you can just type “Yale University Tuition” (Even “Tuition Yale” will yield useful results.)</td>
<td>Don’t expect to get the answer you are looking for by asking a question in the search box. The search engine doesn’t speak any human language. Google may have caught on to this bad habit, and it appears they have gotten better at interpreting it. However, you need to remember that Google finds links for you with a query processor. Phrasing the search as a question can throw off your results.</td>
<td>Remember how Google doesn’t speak human languages? Well there is a way to bridge the communication gap: syntax. The way you use certain symbols and phrases in the search bar allows you to advance the search. Now you’re speaking Google’s language.</td>
</tr>
</tbody>
</table>
**MORE ON SYNTAX:**

At Google’s help page (support.google.com/), they provide a list of search operators to use when their basic search tips do not work:

<table>
<thead>
<tr>
<th>Search for an exact word or phrase</th>
<th>Use quotes to search for an exact word or set of words. This option is handy when searching for song lyrics or a line from literature. &quot;imagine all the people&quot; Tip: Only use this if you’re looking for a very precise word or phrase, because otherwise you could be excluding helpful results by mistake.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclude a word</td>
<td>Add a dash (-) before a word or site to exclude all results that include that word. This is especially useful for synonyms like Jaguar the car brand and jaguar the animal. jaguar speed -car or pandas -site:wikipedia.org Tip: You can also exclude results based on other operators, like excluding all results from a specific site.</td>
</tr>
<tr>
<td>Search within a site or domain</td>
<td>If you are looking for more results from a certain website, include site: in your query. For example, you can find all mentions of &quot;Olympics&quot; on the New York Times website like this: Olympics site:nytimes.com Tip: Also search within a specific top-level domain like .org or .edu or country top-level domain like .de or .jp. olympics site:.gov</td>
</tr>
<tr>
<td>Search for pages that link to a URL</td>
<td>Using the link: operator, you can find pages that link to a certain page. For example, you can find all the pages that link to google.com. link:google.com Tip: You can also search for links to specific pages, like google.com/images. link:google.com/images</td>
</tr>
<tr>
<td>Search for pages that are similar to a URL</td>
<td>To find sites that are similar to a URL you already know, use the related: operator. For example, when you search for related sites to the New York Times, you’ll find other news publication sites you may be interested in. related:nytimes.com</td>
</tr>
<tr>
<td>Include a “fill in the blank”</td>
<td>Use an asterisk (*) within a query as a placeholder for any unknown or wildcard terms. Use with quotation marks to find variations of that exact phrase or to remember words in the middle of a phrase. &quot;a * saved is a * earned&quot;</td>
</tr>
<tr>
<td>Search for either word</td>
<td>If you want to search for pages that may have just one of several words, include OR (capitalized) between the words. Without the OR, your results would typically show only pages that match both</td>
</tr>
</tbody>
</table>

**BOSTON DEBATE LEAGUE**
Terms.

world cup location 2014 OR 2018
Tip: Enclose phrases in quotes to search for either one of several phrases.
"world cup location 2014" OR "world cup location 2018"

Sources: The Good, The Bad, and The Ugly

Rounds are frequently won and lost over the validity of sources. While some debaters do not always pay close attention to dates and authors, a significant number of them do. Nothing is more unfortunate than losing a key argument because you decided not to spend the extra effort finding a reliable source.

The Good (Authoritative)*

The Bad (Less Authoritative)*

The Ugly (No Credibility)

Peer-Reviewed Journals

Newspapers

Think Tanks

Government Publications

Books

Blogs

Popular Magazines

Online Forums

Wikis

Your History Essay

Article Abstracts

* As you research you find a lot of fluidity between sources from “The Good” and “The Bad” column. For example, think tanks have articles written by individuals who are highly-qualified in their field who have a myriad of resources to work with for their research. However, most think tanks exist to push a political agenda forward.

Quality and Reliability

Many sources need to be determined on a case by case basis. For example, blogs are listed as a less authoritative source, but not an ugly one. This is because sometimes highly-educated, qualified individuals use a blog to express their views. In other instances, an author may be knowledgeable in their field; however they are known for their extremely biased views. Meanwhile, your essay from history class, regardless of how high the grade, will never hold any weight in a round.

Tone

Tone can tell volumes about the author and even prompt you to look into their history when you notice that they sound like they are taking a certain issue too personally. It’s very subtle, and no one in the round is likely to notice. For the sake of intellectual honesty and good practice, you should take it into account.

Intended Audience

The same way you change the way you deliver a message based on the person you are talking to (friend, teacher, grandparent, etc.) authors also tend to alter what their exact opinion for the sake publication.

Publication

What team of reviewers decided to allow this paper to be published in their journal? What kind of articles does this newspaper look for? Some sources are extremely biased. This can fall in or out of your favor depending on what the bias is.
When was this source written and printed? The date of your source is highly important. Naturally, some issues will not matter if the facts have not changed since the date it was written. No one is going to pester you about the abolishment of slavery just because the evidence was published in 2001.

WIKIPEDIA AND OTHER QUESTIONABLE SOURCES

Wikis are content management systems which allow visitors to read, author, delete and modify information within the web application. The popular favorite among internet users is Wikipedia. Wikipedia has an article on every obscure topic you can think of, written in the most accessible way possible. For that reason students rely on the site frequently. The general rule of researching taught by teachers is that students should never cite Wikipedia in their work. While it is true that the information on Wikipedia is not always written by a qualified individual and frequently falls victim to pranks by internet trolls, the articles do provide some valuable assistance.

TWO VALUABLE WIKIPEDIA TOOLS:

References This section is the perfect spring board. While the article itself may not be acceptable to quote in the round, the sources that the article cites may lead you to better authors.

See Also Another interesting thing about Wikipedia is the many hyperlinks in the articles and the “See Also” section. For topics that you are unfamiliar with, you can easily stumble upon more related topics that can help you redefine your search terms and better understand what you want the focus of your research to be.

While you should not end your journey at Wikipedia, and other Wikis, it is perfectly fine to start it there and see what you can pull from it.

JOURNALISM QUALITY INDICATORS

Not all journalism is created equally. Some authors are more widely respected than others for various reasons. However, at the end of the day, you have to play it by ear. Through working with and getting feedback from your teammates’ and coach’s you can eventually get into the groove of what news source works best for you in the round.
Experience and Specialty

Journalists tend to cover a certain genre or trend in the news (technology, urban education, American politics, race relations, etc.). You then have to question how long this person has been a journalist in this genre. These rules do not have to apply to the journalist; the publisher themselves can be pertinent to the reliability of the source. For instance if you quote an author who wrote an article about the possibility of a bill passing through Congress for Reuters, you can trust that the article is factual. The article has to go through at least one editor, who would not allow anything through that falls below the quality of work Reuters is known for.

Universal Respectibility

Local news stations are a perfect example of information that you can rely on to a certain extent. Yes, maybe the Boston Herald was right on the nose about a Supreme Court decision; however, a stronger argument can be made with an article from CNN or BBC, because it is more universally accepted that these sources produce highly-quality journalism. This point is also not to discredit sources such as the Boston Globe or the Boston Herald. At the same time, there is no place for The Metro in the debate round.

Other Factors

These factors aren’t as easy to remain aware of, especially if you are not familiar with the sources you are using. The first two serve as an adequate metric to determine the validity of a source. Don’t worry about going this far into analysis:

- Independence; financial stability; integrity; social concern; good writing and editing.
- Strong opinion and interpretive emphasis; world consciousness; non-sensationalism in articles and makeup.
- Emphasis on politics, international relations, economics, social welfare, cultural endeavors, education, and science.
- Concern with getting, developing and keeping a large, intelligent, well educated, articulate and technically proficient staff.
- Determination to serve and help expand a well-educated, intellectual readership at home and abroad; desire to appeal to, and influence, opinion leaders everywhere.¹

Skipping the Heartaches and Advancing Your Researching Skills

Utilizing some simple, straightforward tools circumvents many research faux pas. In researching you will frequently stumble upon that perfect article saying exactly what you want it to say. However, once you take a look at the site you clicked on, you realize that it is not a valid source. Even worse would be to never pick up on such a detail.

Databases, such as Google Scholar and JSTOR, are already filtered to only show accredited sourced. A database is an organized collection of data. Academic databases are useful for retrieving articles in academic journals, repositories, archives, newspapers, and other

respectsable sources. Many of them are specific to/specialized in a particular topic; a few tend to be multidisciplinary.

Once you start using databases, you will find that the quality of information you find is superior to that of a simple Google search. In fact, databases eases the research process as you become more detailed in your focus. As you search, you can begin to fully utilize the Advanced Search option; you can tell the database what words or phrases an article should or should not contain, the kind of source you want (newspaper, speech transcript, think tank, journal, etc.), specific names of authors and publishers, and the timeframe of publication (1990-1991, December 2010-March 2013, etc.)

The only caveat to using databases is the lack of availability to certain ones. There are plenty of reliable databases; however, many of the most beneficial ones require you to pay for complete access to individual sources or for a subscription to anything within the database.

Here is a list of some free databases:

Google Scholar: www.scholar.google.com
BASE: http://www.base-search.net/
Directory of Open Access Journals: www.doaj.org
Intute: www.intute.ac.uk
Mendeley: www.mendeley.com
National Criminal Justice Reference Service: www.ncjrs.gov
SearchTeam: www.searchteam.com
SSRN: www.ssrn.com

While you can definitely put in some serious work on these databases, there are several ways to sidestep expensive subscription fees and still feel as though you have exhausted all possible sources of information.

**The Public Library**

The local library pays for subscriptions to many databases. The databases are available to any cardholder of the library. The best part about this is that you do not have to be at the library use their databases. Here is how to access the databases from the Boston Public Library:

→ Visit bpl.org
→ Select “electronic resources”.
→ You are given three ways to search.
  → Select the subject of the database that you want to search
  → Search databases alphabetically by title
  → Search “full-text @BPL” content in Google Scholar search engine
  → E-Journals by journal titles (if you already know the journal you need)
→ Once you select the option and begin to go through publications, you will eventually meet the Electronic Resources Remote Authentication page where you will be prompted to provide your BPL card number and pin.
→ Additional assistance with pins and card numbers are on the web page.
Pro Tip: Even if you owe money on your library card, you can still use the library databases.

**Non-Electronic Sources**

Sometimes, you may find information in physical texts, such as books and newspapers. There is nothing wrong with keeping it old school and making photocopies of pages and keeping them in a folder for later. It’s important to remember that not every piece of information has been made digital. There is myriad information that has not been published in any E-Journal or website. The evidence from this kind of source may be harder to prepare for a round; however, many books tend to be more in depth and detailed than an article.

**Card-Cutting**

Now that you are elbows deep in research, you must be thinking “what’s next?” After you have a significant amount of research completed, it is time to take all the research you compiled and organize it. Thus, you must begin to cut cards. Cutting cards is a way to take the research you found and create a much more concise version to use in debate rounds. Rather than having several lengthy articles debaters take relevant-adjacent paragraphs out of the research, place it onto a page, cite the author, create tag lines that sum up the central point of the article, and highlight the relevant text. To cut cards, follow these steps:

**Evaluate and Annotate**

Read the article you found to decide which part you want to paste onto the page. You do not have to put the entire article into a card. Rather than doing that, select a piece you believe highlights not just the argument of the article, but also what you want to get from the article. This is a simple way of making a long article with useful information very concise.

As you read, you should start sectioning off information. If the first two paragraphs are perfect for your link, then you should clearly bracket them off and then label that section with an “L” in a circle or the work “Link”. The more specific, the better. If you know that you want to use the link for any case dealing with Cuba, you should write “Cuba Link”. If the link can go with any case, write “Generic Link”. You would be surprised at how brilliant you can be one evening, but completely blank the following day.
As a rule, you should never cut a sentence out of a paragraph. Evidence should be cut out in paragraphs; when the other team wants to look at your evidence, they can keep the information in context. Once you found the piece of text you wish to include in your evidence, you must include all of the first paragraph it appears in through the paragraph the text ends in.

**Digital and Physical Cutting**

Cutting cards is not the same process for every source you find. Most debaters favor scavenging through electronic resources for evidence; however, in the days before computers were widely used debaters used to cut out their evidence using photocopies of books, newspapers, and encyclopedias. Each style does carry its own merits. Although the end products may look pretty similar, the process of turning sources into debate evidence is not the same. So one might ask “which way is best for cutting cards?” Well, the answer depends on your preference. Each way has its advantages and disadvantages:

<table>
<thead>
<tr>
<th>Source</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books/Printed Articles</td>
<td>Evidence tends to be more detailed than internet sources</td>
<td>Can be harder to organize</td>
</tr>
<tr>
<td></td>
<td>Universally accessible</td>
<td>Harder to edit evidence/tag lines</td>
</tr>
<tr>
<td></td>
<td></td>
<td>More tedious to cut</td>
</tr>
<tr>
<td>Internet/Digital Articles</td>
<td>Easily accessible</td>
<td>Less in depth evidence to use</td>
</tr>
<tr>
<td></td>
<td>Can be cut and organized very easily</td>
<td>Assumes computer/internet access</td>
</tr>
<tr>
<td></td>
<td>Easier to edit your tags/evidence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cleaner end product</td>
<td></td>
</tr>
</tbody>
</table>

If you follow these steps, no matter what method of card cutting you choose, you will have a nicely cut piece of evidence ready to be tagged, cited, and debated!
**Highlighting and "Smart" Word Economy**

Once again, make sure you are not cutting out important contextual information! Does that mean you must read the entire portion? Of course not. Once you have the selected portion cut, you can simply choose the pieces you want to read. As you go through the cut card, you should distinguish parts you wish to read from parts you do not wish to read. On a computer, you would do this by using the underline tool in whatever word processor software you are using. Warning: Never misconstrue what an author is saying by deceptively highlighting parts of a sentence so that the text says something that benefits you but, that is not in line with what they author was trying to say; this is cheating, dishonest, and unacceptable.

**Pro Tip:** If you do not print your evidence using a full color printer, do not use the yellow text highlighter tool in your document, otherwise it will be too light to appear. Also, the blue highlighter darkens the text too much. The safer solution is to wait until after you print your evidence to physically highlight. (Highlighting your evidence later is great since you get to read it with fresh eyes.)

**Card Formatting**

After you have a piece of evidence cut, you just simply have to do basic formatting to make the evidence neat and easy to read. This process involves removing pictures and hyperlinks, fixing fonts, weird symbols, and removing any unneeded spaces or lines. For example, say you copy 3 paragraphs worth of text from a longer article that includes a picture within your selection and a few links. Once you past the text you will need to delete the picture, remove the links and link formatting, and remove the spaces between each paragraph. In the end the 3 paragraphs will look like 1 paragraph with no links or pictures.

With physical sources, you do not need to format the actual text because it is already formatted for you. Instead, you have the option of either taking the photocopy of the evidence and pasting it on a blank paper or scanning it onto a computer so you could tag it from there. This part depends on both the resources you have available to you (i.e scanner) and your individual preference.

“One lie ruins a thousand truths.” – Ghanaian proverb

By cutting your own evidence, you take on the expectation that you are going to be honest in your research and editing. Whatever evidence you present in the debate round must presented in a way that is true to the author’s original intention and purpose in writing. This also means that you should not delete or add information that was not originally in the text.
Citing Evidence

As of now you have an article cut into a card with a tag line. All that is left to do is to cite your evidence. Like any research paper, you cannot take someone else’s work without citing it correctly. Although there are many ways to cite, there is necessary information to include in your citation.

Each cited card in debate includes the following: author’s name, author’s qualifications, publish date, article title, publication source, and website (if from online.) Usually in debate rounds, you will only use the author’s last name and date published to refer to the evidence. However, it is required to have more in depth citation in order to not only avoid plagiarism, but to also have a more credible piece of evidence.

Websites

Author’s Last Name, Year Published [Article Title, Author’s Full Name, Qualifications, Date Published, Publication Source, URL]


You can also use this method:

Author’s Name (Last, First), Qualifications, Title of Article, Publisher, Date (DD/MM/YYYY), [URL].


Pro Tip: To make for easier and smoother reading in the round, keep the two parts you must read next to each other, the author name and date. Example: Smith 2012

Books and Magazines

For Printed Books:

Author’s Last Name, Year Published, [Book. Author’s Name, Qualifications, City: Publisher, Print.]

For Online Books:

Author’s Last Name, Year Published, [Book, Author’s Name, Qualifications, City: Publisher, Website Title, URL.]
A citation in debate evidence is not the same format as a citation in research papers. Although they have different formats, each citation should include the same needed information. The format is just changed so it is easier for a debater to read the needed citation (i.e., author’s last name and year published.)

Once you cite your source on your card, you have a complete piece of evidence ready to be used in a debate round!

“One lie ruins a thousand truths.” – Ghanaian proverb

When citing, you need to make sure that you are not changing the information, intentionally or accidentally. Dates, author qualifications, and other important information for in-round evidence analyzing should never be tampered with. No matter how hard it is to find a politics update, nothing justifies moving the date forward by even a day or claiming the article is from CNN and not Fox News.
## Refining Taglines

As of now, you have cut and underlined evidence in your sources. With that done, it is time to tag and cite your card. Tagging cards is a simple way to put a title on your evidence. More accurately it is the claim you are presenting to the judges that the warrants within your text supports. In rounds, judges flow the tag line of each piece of evidence because it serves to be the main idea of the evidence. With that being said, you want your tag line to be both a summation of the evidence and concise so judges will be able to flow it.

<table>
<thead>
<tr>
<th>Tagline Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong and Assertive</td>
<td>Your tag should be argumentative and ring confidence. Avoid adding too many words and phrases which suggests uncertainty; “could potentially”, “might”, etc. While it is okay to use these if it what best reflects the evidence, you don’t want to place so many of these modifiers that the judge, consciously or unconsciously, perceives the argument as weak.</td>
</tr>
<tr>
<td>Reflective of the Warrant</td>
<td>While you don’t want to give your evidence too little credit, it is poor practice, but so frequently done by debaters, to make claims in the tag that are not fully backed up by the evidence itself. You need to interpret the evidence as it written, not as it would read if you were able to add a few more lines to it.</td>
</tr>
<tr>
<td>Clear and Concise</td>
<td>Your tag line should not be more than a few lines. In fact, don’t shoot for anything longer than three short sentences. You want to steer clear of placing clauses and phrases in inappropriate places in the sentence. While reading the tag, it may be easy to understand; for a judge listening to you speak, it may be a little difficult to hear.</td>
</tr>
</tbody>
</table>

**Pro Tip:** Because you are an amazing debater and, by now, a skilled researcher, every single one of your cards will have awesome warrants. As a way to save yourself time in the round and increase the quality of you evidence analysis, you should distinguish this warrant within the evidence. So when asked about your evidence in cross examination you can point to those two or three highlighted lines. Or when you are delivering that powerful rebuttal, you can quote the exact section you want to. This trick is especially useful for long cards.

---

“One lie ruins a thousand truths.” – Ghanaian proverb

Not everyone is going to catch flaws in every tag you put out there. This fact is not a license to press your luck and actively pump out false tags left and right.
Matrixing evidence

This next step is the fun part. Now that you put in all the blood, sweat, and tears to research and clean up evidence, you now have to pick the best cards to go into your main shell and use the rest as extensions

The Starting Line-Up: Your 1NC Shell

Your shell will be read in the 1NC. Take this into account as you move through this section. Really think about how much time you want to take on this shell and how it will interact with your overall negative strategy.

Finding the MVPs

To start off creating the shell, you need to have four piles ready. Can you guess them? For those of you who have been half-reading this guide, sleeping through camp, and texting in practice, they are uniqueness, link, internal link, and impact. Oh, wait. Here comes a familiar theme: organization. If you were super organized up until this point, you don’t need this step, because all of your evidence has already been filed away (See the section labeled “Organization”). If not, it’s not fun being you right now.

When creating a 1NC shell for a disadvantage, you should always place your strongest cards in the shell. It would be much easier to sweat away a few pesky affirmative arguments in the negative block than to sit gathering the shattered pieces of your disadvantage. You shouldn’t wait until after your position is destroyed to bring out the big guns; now you have to rebuild, defend, and attack. Let’s not give the affirmative the chance to knock you over.

By this point in your career, you should know how to weigh evidence. Go group by group and pick your top players. Once you have three or four cards you think are first constructive worthy, go ahead and narrow it down to one. It might be that you want to go group by group because you think the warrants in evidence for one part of the disadvantage work well with another card. Keep playing around with combinations until you come up with a definite line up. Naturally, the strongest cards are most likely going to tell the best story.

In the chance that the disadvantage makes sense, but you do not have/need an internal link don’t sweat it.

Important: You do not want to lose track of the four cards you chose. Figure out a way to keep track of the cards for the next step.

Creating your document

We’re in the home stretch:

→ In a fresh word document you want to create a header for your disadvantage shell. Do not make it too creative; especially, if you know you can’t keep track of it in the round and wouldn’t recognize it written on your accordion folder.

BOSTON DEBATE LEAGUE
→ Once you have your header go ahead and paste in each card in order.
→ Go back though each piece of evidence and ensure that your formatting is still the same.
→ Label the cards by their argument type.
→ **Important:** Save the file as the name of the disadvantage inside of the appropriate folder (not as a bunch of arbitrary numbers or “DA”)

### Affirmative Answers

You don’t want to put out a disadvantage that you yourself cannot answer. While your disadvantage may be unique, it might not be the only one out there. You need to take all of the evidence that leaned towards the affirmative and turn those into usable answers to the disadvantage. Don’t be afraid to get fancy with some turns!

Had you tossed those articles, you would have had to retrace several of your steps. Hopefully, you kept it all, so now you are good to go.

As you read through the evidence you found and begin to pick the strongest arguments against your case, you can slowly prep yourself against these answers on the negative end of things. Don’t be overly concerned about particularly strong affirmative answers, because this leads to three great outcomes:

1. You are aware of these arguments.
2. You have the opportunity to close these holes before you lose a round over them.
3. You have amazing answers for when you’re affirmative.

At this point, nothing the affirmative throws at you will catch you off guard.

### Adding to Your Artillery

So now you have this amazing shell to read…but you also have a bunch of extra evidence. This evidence should become part of blocks against affirmative answers as well as extensions.

**Important:** Make sure you are adding some analytical arguments into the mix.

### Answers to the Affirmative

Since you now have an idea of what the affirmative will say, create blocks against them. This may require additional research. If not, then you may have the evidence to answer it already cut.

### Extensions

Some of these other cards would make great extensions. Further divide the files you already have into subcategories. Don’t just say leave them as impacts extensions. Label them as specific kinds of impact (nuclear war, global warming, etc.).
Making Your Own Disadvantage
One of the defining characteristics of the Championship division is original research. Original research is key to building the best positions and it is often hard work. However, nothing is more satisfying than owning and winning with your own Affirmative case AND nothing distinguishes good debaters from great debaters like hard work.

In the “Making Your Own Disadvantage” section you learned how to research, cut cards, and organize your evidence into a strategic offensive argument, i.e., a DA. In this section you will learn how to create your own affirmative case. In doing so, you will build upon and refine the skills you learned in the previous section and through scaffolded activities you will work your way up to cutting your own affirmative. Good luck and may the judging be ever in your favor!

**Contents**

- Essential Case Elements 1
- Case Starter Pack 2
- Making your Own Affirmative 3
In policy debate, the affirmative side has the duty to affirm the resolution. The goal of any affirmative team is to convey to the judge that the plan or action proposed is better than the status quo in some way. To do this, the affirmative team has to do four different things: illustrate a problem in the status quo, show what could happen if the problem continues unchecked, propose a plan to be enacted, and demonstrate how the plan will stop the problem at hand. An affirmative case consists of the following: inherency, harms/advantages, a plan text, and solvency.

The Inherency

The inherency is the part of the affirmative case where affirmative team introduces the problem in the status. With this part, the affirmative team is supposed to demonstrate the issue at hand; the inherency’s purpose is to begin the affirmative case with an illustrated flaw in the current society we live in. It gives foundation to propose a solution to stop an issue at hand.

The Harms

Once the current issue is illustrated to the judge, the affirmative team must demonstrate what will happen if no action is taken to stop the issue in the status quo. This part, known as the harms, shows the bad things that could arise if nothing stops the problem illustrated in the inherency. In this part, the affirmative team paints out their impacts, which serves to be their biggest offense in the debate round.

Plan Text

In a few lines, the affirmative team proposes a plan that the United States Federal Government should enact in order to prevent the impacts they presented. Although very short, the plan text is the most important part of an affirmative case; it is the basis of any case. In short, this line outlines what exactly the affirmative team is arguing in favor of. It must be an example/affirmation of the resolution.

Solvency

Once the affirmative team presents their plan, they must demonstrate how the plan will fix the issue at hand. Solvency is a detailed breakdown of why the plan is the key action to take. The solvency of an affirmative case also serves to show how the plan is better than the status quo in some way, shape, or form.
Now that you have had a brief refresher, it is your turn to create your own case. For this first case, you will be provided the materials to create a Cuba Sugar-Ethanol Affirmative in the appendix. The starter pack provides you with a full inherency card as well as a plan text. Here’s a taste:

The United States federal government should authorize the licensing of American companies to participate in the development of Cuba’s sugar ethanol industry and allow Cuban sugar ethanol imports.

**Harms**

Then, we provide you with the full text of several harms cards. In this affirmative, there are three potential advantages:

- Climate Change
- Dead Zones
- Monoculture

You only need to pick two.

**Solvency**

As for solvency, you have been provided the information needed to track down the original text. It’s up to you to scan the article and figure out which part you need for your case.
**Making Your Own Affirmative**

Just like disadvantages, creating your own affirmative is highly advantageous. Your coach is always telling you how important it is for to know the facts of your position. Using packet or camp cases does not give you the same advantage of having a deep understanding of your case. When you make your own affirmative you will find that you have a high affirmative win ratio. The best teams create their own affirmatives for good reasons. Affirmatives are a great deal of work; however, at the end of the day, it is worth it.

**Interpret the Resolution**

As of now you have learned to develop your own disadvantage and how to put together an affirmative case using miscellaneous evidence. Now it is time to create your own affirmative case! Just like creating a disadvantage, you might not know where to start. Lucky for you, you have a simple foundation to begin brainstorming on: the resolution. The resolution frames the topic in a way that both can guide your thinking and gives you room to be creative. With that being said, it is important to think about plans that directly fit under the terms of the resolution. If not, you open yourself up to the dangers of topicality.

There are three different topicality violations to be aware of when constructing an affirmative: regular topicality, effectual topicality, and extra topicality.

<table>
<thead>
<tr>
<th>Topicality</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Topicality</td>
<td>An affirmative plan that does not fit under a certain part of the resolution</td>
</tr>
<tr>
<td>Effectual Topicality</td>
<td>An affirmative plan is not topical when directly implemented, but the results of the plan are topical</td>
</tr>
<tr>
<td>Extra Topicality</td>
<td>It takes more than the resolution to solve the harms of the affirmative</td>
</tr>
</tbody>
</table>

For your plan to avoid the dangers of topicality you must make sure your plan fits under all parts of the resolution, that it is topical once it is directly implemented, and that it does not require any “untopical” components to solve for the harms. By starting your brainstorm by putting up these mental restrictions, you can not only prep for any topicality violation, but also narrow your brainstorm in order to find a topic.

**Brainstorm**

Now it is time to brainstorm. When brainstorming possible affirmative plans, you begin with figuring out what types of topics fit under the resolution. While looking at the resolution, you should write down the topics that come to mind. For example, if the resolution is “The United States federal government should substantially increase its economic engagement toward Cuba, Mexico, or Venezuela”, you would want to brainstorm a list of all the ways the U.S. Federal Government could increase its economic engagement with each of these countries. One thing you may write down is to lift the Cuban embargo to expand trade. The list you develop will serve as possible topics to research.
Pro Tip: Brainstorming your case as a team may be much more useful as a team practice activity. With more brains, there will be much more ideas out there!

**Find out the Current Situation**

Just like making a disadvantage, once you have a topic chosen, you must find out what the status of the issue is. However, for an affirmative case, you must demonstrate an inherent problem in the status quo for your topic. For an affirmative case to be debatable there must be a problem in the status quo that the plan is supposed to solve. This is known as the herinency of an affirmative case.

This step may come before you choose a topic because to have a case, there has to be a problem in the status quo. Although it may take time, researching the current situation/issues in the topic area is a great step to finalize the topic you want to make a case out of.

**Make people Care**

So what if there is a problem in the status quo? How bad could it get if the USFG does nothing to solve it? Now it is time for the harms, where you outline what will happen if no action is taken to solve the problem. This part of the affirmative could be viewed as multiple separate stories (depending upon how many harms you wish to have.) This part tends to be the trickiest part of creating an affirmative because it requires a lot of researching. Although there is no exact format to developing a harm scenario, there are a few steps you could take to develop a strong story:

→ Find out how the inherent problem is manifesting itself as a harm (ex: The lack of mass transit in the status quo is causing severe inequality issues as the poor, urban citizens suffer mobility-related issues.)
→ Find out how this problem could make your harm worse (ex: Mobility related issues caused by a lack of mass transit will result in lack of educational and job opportunities.)
→ So what? Find out why this possible issue is bad. Find out why it is something to care about. This is the impact of the harm (ex: A Lack of jobs/educational opportunities will result in mass poverty and suffering.)

By following these steps, a very persuasive harm scenario could be developed. A good story needs great links between each part. So, although there are only three steps listed above, that does not necessarily mean you only need to have three pieces of evidence in your harm. Depending on your scenario, you may need to have more pieces of evidence to clear up any missing steps between each piece. Remember that links are keys to a persuasive story!
It is recommended to have around two harms in the 1AC shell (depending on length). This gives you two separate, isolated scenarios to have as offense in each round. Remember you want to make complex and comprehensible arguments.

**What’s the Plan?**

Now it is time to put on your cape and come to the rescue! With all this “bad stuff” illustrated, it is time for you to tell the judge what action the U.S should take. This is called your plan text. Although this is the shortest part of the affirmative, it is the most important! You have to word your plan text correctly so not only you can claim to solve for all your impacts, but also to avoid topicality violations. Most plan texts usually begin with the phrase “The United States Federal Government should____.” The plan text could either be specified or general. It all depends on what your case is about. Here are a few examples of plan texts:

“The United States federal government should substantially increase mass transit investment in the United States.”

“The United States federal government should authorize the licensing of American companies to participate in the development of Cuba’s sugar ethanol industry and allow Cuban sugar ethanol imports.”

**Will This Work?**

Now how will the judge know if your plan is the key piece to solve the inherent problem? After you tell the judge your plan of action, you have to demonstrate how your plan solves. The solvency of your case shows this! All that you have to do with solvency is prove that your plan is better than the status quo.

Even if you show that your plan is slightly better, you have done your job. Solvency evidence either shows that the plan can be done and/or effectively addresses the harms listed. It is recommended to have solvency evidence for each harm scenario. Once you have evidence that shows the credibility of your plan, you have yourself an affirmative case!
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PRO TIPS

You should never spend five years reading one source. Skip around an insanely long article by using the pressing CTRL+F (COMMAND+F for Mac users). Then type in the word or phrase you expected to find (usually key terms from your original search). This will bring you to every instance that that word or phrase is used. If you are reading an article on the global warming and you only care about the part that talks about harp seals then just type “harp seal”, “seal” or anything word someone would use to refer to it.

Make sure that when you are saving files, that the name of the file is something you can identify and understand later. If anything, the title of the file can have a hint to the exact thought you had when you decided to save it. For example, if you are researching a disadvantage link and an article from Reuters that immediately makes you think of the perfect trap for a “Cuban Oil” affirmative, then you could title the file “Cuban Oil Link - Reuters”. Once you open the file, you can still access specific information about the article. This practice saves you some time later if you need to look at a particular argument first.

Even if you owe money on your library card, you can still use the library databases.

If you do not print your evidence using a full color printer, do not use the yellow text highlighter tool in your document, otherwise it will be too light to appear. Also, the blue highlighter darkens the text too much. The safer solution is to wait until after you print your evidence to physically highlight. (Highlighting your evidence later is great since you get to read it with fresh eyes.

To make for easier and smoother reading in the round, keep the two parts you must read next to each other, the author name and date. Example: Smith 2012

Because you are an amazing debater and, by now, a skilled researcher, every single one of your cards will have awesome warrants. As a way to save yourself time in the round and increase the quality of you evidence analysis, you should distinguish this warrant within the evidence. So when asked about your evidence in cross examination you can point to those two or three highlighted lines. Or when you are delivering that powerful rebuttal, you can quote the exact section you want to. This trick is especially useful for long cards.

Brainstorm your case as a team may be much more useful as a team practice activity. With more brains, there will be much more ideas out there!
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APPENDIX A: STORYLINE EXERCISES

DOMESTIC RESOLUTION:
Resolved: ____________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________

How does ____________________________________________ affect/influence
the international community?
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________

What political issues currently touch upon ____________________________________________?
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________

How can ____________________________________________ affect the economy?
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________

What kind of social issues arise out of ____________________________________________?
_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________
FOREIGN RESOLUTION:

Resolved: ____________________________________________________________

How does _____________________________ in _____________________________
(nature of policy) (country/region)
 affect/influence the international community and the United States?

Socially: ___________________________________________________________

Politically: ___________________________________________________________

Economically: _________________________________________________________

What political issues in _____________________________ currently touch upon
(country/region) _____________________________ ?
(nature of policy)

How can _____________________________ affect the economy of
(nature of policy) _____________________________ ?
(country/region)

What kind of social issues arise in _____________________________ when
(country/region) _____________________________ is implemented?
(nature of policy)
**APPENDIX B: INHERENCY AND PLAN TEXT**

**INHERENCY**

Cuban sugarcane-based ethanol market is superior to American corn-based ethanol. It will slow the rate of climate change, pesticide use, and dead zones.


IV. Environmental Effects of Ethanol 4. Assuming that Cuba is able to meet all the challenges standing in the way of creating a sugarcane-based ethanol industry, including the removal of U.S. legal barriers, and it begins importing ethanol to the United States, the United States would benefit environmentally in two ways. First, Cuban sugarcane-based ethanol would directly benefit the United States by reducing the negative environmental effects of corn-based ethanol production, to the extent to which it replaced domestically produced corn-based ethanol. n55 Second, by reducing greenhouse gas emissions, Cuban sugarcane-based ethanol would indirectly benefit the United States as well as the rest of the world by reducing the speed of global climate change. n54 A. Environmental Effects of Corn-Based Ethanol A chief argument in favor of the domestic corn-based ethanol industry is that it is environmentally beneficial because it reduces greenhouse gas emissions. n57 Scientists, industry advocates, and critics hotly contest the degree to which greenhouse gas emissions are reduced by replacing a percentage of U.S. gasoline consumption with domestically-produced corn-based ethanol. It is beyond the scope of this Article to weigh in on which evaluation is correct. n58 [182] Nonetheless, the factors that go into these scientific evaluations, are important for understanding the larger picture of the ethanol issue, and thus will be discussed. n59 Using any form of ethanol as a transportation fuel combats climate change because the carbon released when ethanol is burned was captured out of the atmosphere by the plants used to make the ethanol. Contrasting, the carbon released when gasoline is burned had been stored in the earth for millennia in the form of crude oil. n59 This simple fact is complicated by the reality that the entire process of getting ethanol into the fuel tanks of drivers - from growing crops, to creating a refined product, to delivering blended ethanol to gas stations - is reliant on fossil fuels. According to one report, “If corn growth required only photosynthesis, if ethanol were produced using solar power, if corn were instantly transported to ethanol plants, and if no land use changes were needed to grow the corn, then displacing a gallon of gasoline with ethanol would reduce greenhouse gas emissions by approximately [the equivalent of] 11.2 kilograms of [carbon dioxide]. However, fossil fuels are used to grow corn and produce ethanol.” n60 The debit side of the domestic ethanol industry’s climate-change ledger begins to subtract from the credit side before the corn it uses is even planted. “America’s corn crop might look like a sustainable, solar-powered system for producing food, but it is actually a huge, inefficient, polluting machine that guzzles fossil fuel.” n61 While advocates for corn production would dispute this characterization of the industry as “inefficient” and “polluting,” it is undeniable that conventional corn production techniques use large amounts of climate change-exacerbating fossil fuels. Conventional (non-organic) corn production techniques involve annual applications of fertilizers and pesticides, both largely derived from fossil fuels. n62 The process by which incentives for
ethanol production change land use patterns and thereby impact climate change, known as indirect land use change (ILUC), happens roughly as follows. By increasing demand for corn, corn-based ethanol production drives up the price of corn. As the price of corn increases, farmers want to grow more of it. By making corn more appealing to farmers to grow than other crops, and thereby increasing national levels of corn-production, the corn-based ethanol industry makes the negative environmental effects of corn production more widespread. Conventional corn-growing techniques involve applying more pesticides and fertilizers to corn than is usually applied to other row crops such as soybeans. This effect is exacerbated when high corn prices disincentivize crop rotation. A common technique in American agriculture today is rotating corn and soybeans. Because soybeans are a nitrogen-fixing crop (that is, they take nitrogen out of the atmosphere and release it into the soil), corn grown on land that was used to grow soybeans the year before requires a lesser input of nitrogen fertilizer. By boosting the price of corn relative to other crops like soybeans, however, the domestic ethanol industry encourages farmers to use the same piece of land to grow corn year after year. Growing corn on the same land in successive years rather than rotating it with soybeans significantly increases the climate change effects of corn production because "nitrogen fertilizer applications are typically fifty pounds per acre higher for corn planted after corn" and "nitrous oxide has a global warming potential more than 300 times that of [carbon dioxide]." Additionally, the application of fossil fuel-derived nitrogen fertilizer has other environmental impacts beyond exacerbating climate change. The collective nitrogen runoff of the Mississippi River basin has caused a process called hypoxia, which kills off most marine life, in a region of the Gulf of Mexico. Scientists have linked the so-called Dead Zone to corn production and, thus, to the domestic ethanol industry.

The United States federal government should authorize the licensing of American companies to participate in the development of Cuba’s sugar ethanol industry and allow Cuban sugar ethanol imports.
APPENDIX C: HARS EVIDENCE

ARTICLE 1

Title: The Gulf of Mexico Dead Zone and Red Tides

Author: Elizabeth Carlisle

Date: 1/05/00

URL: http://www.tulane.edu/~bfleury/envirobio/enviroweb/DeadZone.htm

The Dead Zone

The Gulf of Mexico hypoxic zone is a seasonal phenomena occurring in the northern Gulf of Mexico, from the mouth of the Mississippi River to beyond the Texas border. It is more commonly referred to as the Gulf of Mexico Dead Zone, because oxygen levels within the zone are too low to support marine life. The Dead Zone was first recorded in the early 1970's. It originally occurred every two to three years, but now occurs annually. In the summer of 1999 the Dead Zone reached its peak, encompassing 7,728 square miles.

Hypoxic conditions arise when dissolved oxygen levels in the water fall below two milligrams per liter of water, too low to sustain animal life in the bottom strata of the ocean. The Dead Zone forms each spring as the Mississippi and Atchafalaya Rivers empty into the Gulf, bringing nutrient rich waters that form a layer of fresh water above the existing salt water. It lasts until late August or September when it is broken up by hurricanes or tropical storms. The nutrients provide favorable conditions for excessive growth of algae that utilize the water’s oxygen supply for respiration and when decomposing.

The Mississippi River Basin covers forty-one percent of the continental United States, contains forty-seven percent of the nation’s rural population, and fifty-two percent of U.S. farms. The waste from this entire area drains into the Gulf of Mexico through the Mississippi River. Included in this agricultural waste are phosphorus and nitrogen, the primary nutrient responsible for algal blooms in the Dead Zone. Nitrogen and phosphorus were first used in fertilizers in the United States in the 1930s. Concentrations of nitrate and phosphate in the lower Mississippi have increased proportionately to levels of use of fertilizers by agriculture since the 1960s, when fertilizer use increased by over two million metric tons per year. Overall, nitrogen input to the Gulf from the Mississippi River Basin has increased between two and seven times over the past century. In addition to agricultural waste, inadequately treated or untreated sewage and other urban pollution is also dumped into these waters. Nitrogen is normally a limiting factor, meaning its restricted quantities limit plant growth and reproduction. However, excessive amounts of nitrogen lead to eutrophication, the takeover of nutrient-rich surface water by phytoplankton or other plants. If nutrient pollution is not greatly reduced, fish and shellfish may someday be permanently replaced by anaerobic bacteria.
The Dead Zone reappears every spring as conditions for algal blooms become more favorable. Rivers carry greater quantities of water in the spring, along with greater quantities of dissolved nutrients, as the snow melts in northern areas and rainfall increases. Sunlight also increases in intensity and duration during this period, accompanied by warmer weather and fewer storms, all of which encourage algal growth. Decreasing storms in late spring and early summer result in calmer water, which prevents the bottom strata of low-oxygen water from mixing with oxygenated surface water. Organisms living at greater depths, including most marine animals, cannot acquire necessary oxygen. This timing is especially bad, as the summer months are a time of active reproduction by fish and benthic (bottom-dwelling) invertebrates. In turn, the Dead Zone is broken up in late August or September by hurricanes or tropical storms.

As the fresh, nutrient-enriched water from the Mississippi and Atchafalaya Rivers spread across the Gulf waters, favorable conditions are created for the production of massive phytoplankton blooms. A bloom is defined as an “increased abundance of a species above background numbers in a specific geographic region”. Incoming nutrients stimulate growth of phytoplankton at the surface, providing food for unicellular animals. Planktonic remains and fecal matter from these organisms fall to the ocean floor, where they are eaten by bacteria, which consume excessive amounts of oxygen, creating eutrophic conditions. Hypoxic waters appear normal on the surface, but on the bottom, they are covered with dead and distressed animal, and in extreme cases, layers of stinking, sulfur-oxidizing bacteria, which cause the sediment in these areas to turn black. These hypoxic conditions cause food chain alterations, loss of biodiversity, and high aquatic species mortality.

Red Tide

In addition to these direct effects, hypoxia may explain another phenomena observed in the northern Gulf of Mexico: red tides. These high concentrations of toxic phytoplankton share a complex relationship with hypoxia. The presence of nitrogen and phosphorus, as well as the disrupted food chain of the Dead Zone, create favorable conditions for cyanobacteria, microflagellates and dinoflagellates, organisms responsible for the formation of red tides. These algal blooms in turn kill additional marine species by paralyzing their respiratory systems. Of the thousands of species of microscopic algae comprising the base of the marine food chain, approximately eighty-five species have been documented as being toxic.

The term “red tide” is somewhat of an inappropriate name for the phenomena of these toxic algal blooms, although they are characterized by the discoloration of the water as they dominate the planktonic community. The term is misleading because other non-toxic blooms can also cause the discoloration of the water, and conversely, negative effects can occur when toxic algal concentrations are low and the water is clear. Therefore, the scientific community now employs the term “harmful algal bloom”, or HAB, in place of “red tide”. Algae species associated with harmful blooms produce potent toxins, which are liberated when eaten, while other species kill without toxins. For example, the serrated spines of certain nontoxic algae can lodge in fish gills, causing irritation which leads to over-production of mucus, and eventually death. Many algae species are also capable of forming cysts that remain in sediment until environmental conditions are conducive to the
occurrence of a bloom. Cysts on the ocean floor are directly toxic to filter feeders like oysters.

Many toxic algae produce potent neurotoxins which can be transferred through the food web, affecting or killing higher life forms, including zooplankton, shellfish, fish, birds, marine mammals, such as whales and porpoises, and humans. These toxins accumulate in shellfish, such as clams, oysters, mussels, and scallops in levels that are potentially lethal to consumers, including humans. Toxins can also accumulate in the viscera of commercially important fish, including herring, mackerel, and sardines. These toxins endanger human health if consumed, causing allergic reaction (skin and respiratory), nervous disorders, and liver disorders. In addition, these fat-soluble toxins accumulate in human body tissue, suggesting the possibility for long-term damage even in consumers who do not become obviously sick after eating contaminated seafood. Toxins, whether contained in algae or released into open water, can move through ecosystems in a manner similar to the flow of energy or carbon, as a wide variety of animals are known to accumulate biotoxins and act as intermediate vectors to consumers at higher trophic levels; therefore these toxins can have significant and widespread impacts. As algal toxins move through marine food webs, a broad spectrum of effects on aquatic organisms in both inshore and offshore habitats results from both chronic and acute exposure, and has been more evident in recent years.

The blooms present in the Dead Zone are primarily nontoxic, and therefore pose no direct threat to other marine organisms and humans. Indirectly, however, they cause conditions that lead to oxygen depletion, making the Gulf uninhabitable for other organisms, and leading to social and economic loss for humans. The Gulf of Mexico yields approximately forty percent of annual U.S. commercial fishing, as well as being home to many recreational fishing activities. There is growing concern over the safety of seafood as a result of the contamination and chemical pollution of fishing waters. One half of the shellfish producing areas along the gulf coast have either been permanently closed or declared indefinitely off-limits by health officials as a result of pollution. The same concerns have caused the closure of many oyster beds. Raw shellfish, such as oysters, clams, and mussels, are at the greatest risk for contamination by bacteria and viruses from pollution. Direct costs include adverse health effects and lost sales of fish and shellfish products, but there are also indirect costs, such as restricted development or investment decisions in coastal aquaculture due to the potential for algal blooms. Commercial and recreational fisheries in the gulf generate 2.8 billion dollars annually. This industry could be seriously affected by reduced food sources for fish and shrimp in hypoxic waters, which would lead to a reduction in the abundance of fish and shrimp and declines in shrimp catch and catch efficiency due to the expansion of hypoxia.

Nutrient abatement in large systems, such as the Gulf of Mexico Dead Zone, has been slow, due to the accumulated materials in sediments. Abatement can be accomplished with current technology, but would require improvements in nutrient retention by farms throughout the Mississippi River Basin. Remediation programs elsewhere have shown that: marine degradation has occurred slowly, therefore recovery is slow; multi-level, multi-institutional support is needed for effective nutrient management; large-scale ecosystem restoration is technically achievable; climate variability can cover the restoration process; and the benefits of restoration will profit many areas of society. Plans undertaken to reduce gulf hypoxia would also result in cleaner air, enhance ground and surface water quality, promote beneficial growth management, reduce topsoil loss, provide additional wetland habitat, and the more efficient management of agricultural resources. However,
Appendix

Rabalais estimates that a forty to fifty percent reduction in the nitrogen input of agriculture would be necessary to return to pre-1950-levels in Mississippi and Atchafalaya drainage. The benefits of nutrient reduction are not in question; the problem remains to be how such plans would be implemented and who would cover the financial burden initially caused by such drastic changes. These changes would primarily be carried out by the Mississippi Basin agricultural industry, which would reap few of the benefits, and therefore is not eager to implement necessary changes. In addition, changes in the detrimental actions of farmers are unlikely to occur because fewer than eleven percent of the polled residents of the Mississippi Basin were even aware that the problem exists.

The Gulf of Mexico Dead Zone’s hypoxic conditions have far reaching effects throughout the coastal and marine ecosystems. Organisms living in the hypoxic zone experience direct mortality, an altered food web, and habitat changes and loss. The loss of fisheries and oyster beds translates into an economic loss as commercial fishermen are forced to fish elsewhere or stop altogether, and recreational fishermen are no longer attracted to the area. The species that do remain in this area are further threatened by over-harvesting and are less appealing to consumers fearing disease. In addition, the same conditions, which produce the Dead Zone, also lead to other detrimental conditions such as Harmful Algal Blooms, which also cause many harmful effects.

ARTICLE 2

Title: Taking Steps Toward Marine Wilderness Protection

Author: Robin Kundis Craig, Associate Professor at Indiana University School of Law

Date: 2003

Biodiversity and ecosystem function arguments for conserving marine ecosystems also exist, just as they do for terrestrial ecosystems, but these arguments have thus far rarely been raised in political debates. For example, besides significant tourism values - the most economically valuable ecosystem service coral reefs provide, worldwide - coral reefs protect against storms and dampen other environmental fluctuations, services worth more than ten times the reefs’ value for food production. 856 Waste treatment is another significant, non-extractive ecosystem function that intact coral reef ecosystems provide. 857 More generally, “ocean ecosystems play a major role in the global geochemical cycling of all the elements that represent the basic building blocks of living organisms, carbon, nitrogen, oxygen, phosphorus, and sulfur, as well as other less abundant but necessary elements.” 858 In a very real and direct sense, therefore, human degradation of marine ecosystems impairs the planet’s ability to support life. Maintaining biodiversity is often critical to maintaining the functions of marine ecosystems. Current evidence shows that, in general, an ecosystem’s ability to keep functioning in the face of disturbance is strongly dependent on its biodiversity, “indicating that more diverse ecosystems are more stable.” 859 Coral reef ecosystems are particularly dependent on their biodiversity. [*265] Most ecologists agree that the complexity of interactions and degree of interrelatedness among component species is higher on coral reefs than in any other marine environment. This implies that the ecosystem functioning that produces the most highly valued components is also complex and that many otherwise insignificant species have strong effects on sustaining the rest of
the reef system. Thus, **maintaining and restoring the biodiversity of marine ecosystems is critical to maintaining and restoring the ecosystem services that they provide.** Non-use biodiversity values for marine ecosystems have been calculated in the wake of marine disasters, like the Exxon Valdez oil spill in Alaska. Similar calculations could derive preservation values for marine wilderness. However, economic value, or economic value equivalents, should not be "the sole or even primary justification for conservation of ocean ecosystems. Ethical arguments also have considerable force and merit." At the forefront of such arguments should be a recognition of how little we know about the sea - and about the actual effect of human activities on marine ecosystems. The United States has traditionally failed to protect marine ecosystems because it was difficult to detect anthropogenic harm to the oceans, but we now know that such harm is occurring - even though we are not completely sure about causation or about how to fix every problem. Ecosystems like the NWHI coral reef ecosystem should inspire lawmakers and policymakers to admit that most of the time we really do not know what we are doing to the sea and hence should be preserving marine wilderness whenever we can - especially when the United States has within its territory relatively pristine marine ecosystems that may be unique in the world. We may not know much about the sea, but we do know this much: if we kill the ocean we kill ourselves, and we will take most of the biosphere with us. The Black Sea is almost dead, its once-complex and productive ecosystem almost entirely replaced by a monoculture of comb jellies, "starving out fish and dolphins, emptying fishermen's nets, and converting the web of life into brainless, wraith-like blobs of

**ARTICLE 3**

**Title:** Raising Cane: Cuban Sugarcane Ethanol’s Economic and Environmental Effects on the United States

**Author:** Jonathan Specht, Wash. U St. Louis, Legal Advisor

**Date:** 4/24/2013

**URL:** http://environs.law.ucdavis.edu/issues/36/2/specht.pdf

Incentivizing farmers to grow consecutive corn crops instead of alternating with soybean crops is only the least damaging of the environmentally detrimental land use changes that the domestic ethanol industry encourages. Land is primarily converted to corn production in one of three ways: land that is already used to grow another crop is converted to corn production, land that is used for pasture or is enrolled in a program like the Conservation Reserve Program69 is converted to cropland, or native habitat is plowed and converted to cropland.70 Each of these has varying levels of negative environmental effects. All three types of land use conversions are underway in the Great Plains states, which have ramped up corn production in response to demand from the ethanol industry.71 While it is not the only reason corn production is increasing in these states,72 the corn-based ethanol industry and thus the governmental policies encouraging it are clearly factors driving land use conversion. “While many factors influence land-use changes, the relationship between ethanol incentives and habitat destruction is fairly clear. Ethanol
incentives increase demand for corn, which in turn increases corn prices. Increased corn prices lead to land being converted from other uses to corn production.”

Converting pasture or Conservation Reserve Program Land to cropland causes more damage than changing crop rotation patterns in already cropped land. Yet, the most environmentally damaging way of converting land to crop production is to plow native habitat and plant it with row crops. This process is underway now in the Great Plains, with devastating environmental effects. Although the most recent data is from 2007, the USDA’s census of agriculture (published every five years) provides a clear picture of the trend lines of U.S. agricultural production. This picture is one of greatly increased corn production in the Great Plains states. According to the Census of Agriculture, the number of acres of corn production in North Dakota has increased from 592,078 acres in 1997 to 991,390 acres in 2002 to 2,348,171 acres in 2007, representing more than a doubling over five years and close to a quadrupling over ten years. Similarly, in South Dakota, the number of acres in corn grew from 3,165,190 in 2002 to 4,455,368 in 2007, an increase of forty-one percent over five years. In Nebraska, the number of acres in corn (for grain) increased from 7,344,715 in 2002 to 9,192,656 in 2007, a modest but still significant increase of twenty-five percent over five years.

While a major portion of this increase in corn production in the Great Plain states is attributable to farmers converting land already used to grow other crops or pasture to corn production, much of it also derives from plowing native habitat. “Recent dramatic increases in corn plantings have been heavily concentrated in the Prairie Pothole Region, displacing other crops as well as sensitive prairie pothole habitat.” The trend of replacing native habitat with fields of corn is an extremely worrying development, and is arguably the strongest reason for displacing at least some domestic corn-based ethanol with Cuban sugarcane-based ethanol. Therefore, this trend will be discussed in some depth.

**ARTICLE 4**

Title: Biodiversity: Farming Will Make or Break the Food Chain

Author: Stephen Leahy, international environmental journalist

Date: May 3rd, 2007

**URL:** [https://www.commondreams.org/archive/2007/05/03/945](https://www.commondreams.org/archive/2007/05/03/945)

BROOKLIN, Canada - As the world population swells to nine billion by 2050, global biodiversity will be under extreme pressure unless new ways to grow food are developed, experts say.

An additional one billion hectares of wild lands -- mainly forests and savanna -- will be converted to food production fields by 2050. While this may provide enough food, it is likely to result in a massive decline in biodiversity, undermining ecosystems that provide vital
services such as clean water and air, and capture carbon to slow the build-up of climate-altering gases in the atmosphere.

Sixty percent of the Earth's ecosystems are in trouble right now, warned the Millennium Ecosystem Assessment report last year.

What state will they be in by 2050?

It depends how society decides to feed itself, says Louise Jackson of the University of California at Davis, and head of an agro-biodiversity task force at Diversitas, an international scientific organisation devoted to biodiversity research based in Paris, France.

"If all agricultural lands adopt the industrial, monocultural model, there will be enormous impacts on water and other essential services provided by diverse ecosystems," Jackson told IPS.

Societies need to recognise the value of ecosystem services and encourage farmers to use methods that benefit biodiversity, she says.

Biodiversity refers to the amazing variety of living things that make up the biosphere, the thin skin of life that covers the Earth and is, as far as we know, unique in the universe. The trees, plants, insects, bacteria, birds and animals that make up forest ecosystems produce oxygen, clean water, prevent erosion and flooding, and capture excess carbon dioxide, among other things.

"There is an unbreakable link between human health and well being and ecosystems," Walter Reid, director of the Millennium Ecosystem Assessment (MA) and a professor with the Institute for the Environment at Stanford University, told IPS last year.

The MA is a 22-million-dollar, four-year global research initiative commissioned by the United Nations, and carried out by 1,360 experts from 95 countries. Its mission has been to examine ways to slow or reverse the degradation of the Earth's ecosystems, including a look at what the future may be like in 2050.

The more species and diversity there are in an ecosystem, the more robust it is. Remove some species and it will continue to function. However, like a complex house of cards, removing key cards or too many cards results in a collapse.

For many ecosystems such as oceans, scientists do not know what the key cards are or how many lost species is too many.

Agriculture has been the biggest contributor to species loss in the past, but Jackson and others believe that valuing agricultural lands as both sources of food and biodiversity could slow the loss of future species.

"There are ways to enhance biodiversity even here in California where there are very intensive agricultural monocultures," Jackson said.
Crop rotation, re-vegetating farm edges and integrating thin strips of land into farm fields to provide habitat for insect predators boosts biodiversity while reducing pesticide use and the impacts of chemicals on water and soil, she said.

The benefits to farmers include less spending on pesticides and fertilisers and improved soil quality due to enhanced microbial biodiversity.

However, such benefits often take years to emerge and pose short-term-financial risks for farmers. To offset these, society should support farmers with some form of payment for increasing biodiversity since everyone benefits from ecosystem services. At the same time, there ought to be strong penalties for chemical pollution, she says.

Conversion of the one billion hectares of wild lands into farmland can also be done in ways that preserve some biodiversity by leaving corridors of connected habitat so species can move from one place to another. Research in the Amazon has shown that islands of untouched forest surrounded by agricultural lands quickly begin to fray at the edges and slowly shrink.

"We can do better in terms of preserving biodiversity in converting forest into farmlands," said Truman Young, an ecologist who is also at University of California, Davis.

"The problem in feeding the world is poverty not food production," Young said in an interview.

While agreeing that more land will be needed in the future, the biggest current and future threats to biodiversity are food and timber export markets, and biofuels, he says.

"Brazil's rural population is in decline even as more Amazonian rainforest is being cleared and turned into soy fields," Young said.

Although some poor farmers are still trying to farm the Amazon, the main pressure today is large industrial farm operations that grow soy for export to Europe. The soy and timber barons of the Amazon have tremendous influence and power, making it difficult to slow deforestation of the region, he said.

The international community needs to counteract that by applying pressure on Brazil because the carbon that is being released by deforestation affects everyone on the planet, he argued.

The other major threat to biodiversity is the thirst for biofuels, derived from corn and sugar cane, among other things, and which experts say have already caused deforestation in Asia and parts of South America.

"Brazil, because of its size and climate, could become the biofuel capital of the world," Young said.

And that could devastate the country's biodiversity without adding much to the world's energy supply. Europeans are turning away from biodiesel made from palm oil because it is causing deforestation. Biofuels only offer a benefit when agricultural waste products are used for conversion into fuel. The technology for doing that is not yet here, he said.
"Improving fuel efficiency is the fastest and easiest way to reduce use of fossil fuels," Young noted.

Just as boosting ethanol or biodiesel production fails to solve the problem of greenhouse gas emissions, so does investing billions of dollars in research into genetically engineered crops, says Anuradha Mittal, executive director of the Oakland Institute, a U.S. think tank.

"We already know how to grow enough food to feed the world. The problem is the food distribution system," Mittal told IPS.

That system favours large-scale monocultures of a few specialised crops, and is destroying biodiversity. Ultimately that approach is a recipe for global famine, she said.

"We know how to end hunger and preserve biodiversity, but there are powerful corporate interests in opposition," Mittal said.

**ARTICLE 5**

**Title:** The Conversion of a Climate-Change Skeptic

**Author:** Richard Muller, Professor of physics at the University of California, Berkeley, and a former MacArthur Foundation fellow

**Date:** 7-28-2012

**URL:**

CALL me a converted skeptic. Three years ago I identified problems in previous climate studies that, in my mind, threw doubt on the very existence of global warming. Last year, following an intensive research effort involving a dozen scientists, I concluded that global warming was real and that the prior estimates of the rate of warming were correct. I'm now going a step further: Humans are almost entirely the cause.

My total turnaround, in such a short time, is the result of careful and objective analysis by the Berkeley Earth Surface Temperature project, which I founded with my daughter Elizabeth. Our results show that the average temperature of the earth’s land has risen by two and a half degrees Fahrenheit over the past 250 years, including an increase of one and a half degrees over the most recent 50 years. Moreover, it appears likely that essentially all of this increase results from the human emission of greenhouse gases.

These findings are stronger than those of the Intergovernmental Panel on Climate Change, the United Nations group that defines the scientific and diplomatic consensus on global warming. In its 2007 report, the I.P.C.C. concluded only that most of the warming of the prior 50 years could be attributed to humans. It was possible, according to the I.P.C.C. consensus statement, that the warming before 1956 could be because of changes in solar activity, and that even a substantial part of the more recent warming could be natural.
Our Berkeley Earth approach used sophisticated statistical methods developed largely by our lead scientist, Robert Rohde, which allowed us to determine earth land temperature much further back in time. We carefully studied issues raised by skeptics: biases from urban heating (we duplicated our results using rural data alone), from data selection (prior groups selected fewer than 20 percent of the available temperature stations; we used virtually 100 percent), from poor station quality (we separately analyzed good stations and poor ones) and from human intervention and data adjustment (our work is completely automated and hands-off). In our papers we demonstrate that none of these potentially troublesome effects unduly biased our conclusions.

The historic temperature pattern we observed has abrupt dips that match the emissions of known explosive volcanic eruptions; the particulates from such events reflect sunlight, make for beautiful sunsets and cool the earth’s surface for a few years. There are small, rapid variations attributable to El Niño and other ocean currents such as the Gulf Stream; because of such oscillations, the “flattening” of the recent temperature rise that some people claim is not, in our view, statistically significant. What has caused the gradual but systematic rise of two and a half degrees? We tried fitting the shape to simple math functions (exponentials, polynomials), to solar activity and even to rising functions like world population. By far the best match was to the record of atmospheric carbon dioxide, measured from atmospheric samples and air trapped in polar ice.

Just as important, our record is long enough that we could search for the fingerprint of solar variability, based on the historical record of sunspots. That fingerprint is absent. Although the I.P.C.C. allowed for the possibility that variations in sunlight could have ended the “Little Ice Age,” a period of cooling from the 14th century to about 1850, our data argues strongly that the temperature rise of the past 250 years cannot be attributed to solar changes. This conclusion is, in retrospect, not too surprising; we’ve learned from satellite measurements that solar activity changes the brightness of the sun very little.

How definite is the attribution to humans? The carbon dioxide curve gives a better match than anything else we’ve tried. Its magnitude is consistent with the calculated greenhouse effect — extra warming from trapped heat radiation. These facts don’t prove causality and they shouldn’t end skepticism, but they raise the bar: to be considered seriously, an alternative explanation must match the data at least as well as carbon dioxide does. Adding methane, a second greenhouse gas, to our analysis doesn’t change the results. Moreover, our analysis does not depend on large, complex global climate models, the huge computer programs that are notorious for their hidden assumptions and adjustable parameters. Our result is based simply on the close agreement between the shape of the observed temperature rise and the known greenhouse gas increase.

It’s a scientist’s duty to be properly skeptical. I still find that much, if not most, of what is attributed to climate change is speculative, exaggerated or just plain wrong. I’ve analyzed some of the most alarmist claims, and my skepticism about them hasn’t changed.

Hurricane Katrina cannot be attributed to global warming. The number of hurricanes hitting the United States has been going down, not up; likewise for intense tornadoes. Polar bears aren’t dying from receding ice, and the Himalayan glaciers aren’t going to melt by 2035. And it’s possible that we are currently no warmer than we were a thousand years ago, during the “Medieval Warm Period” or “Medieval Optimum,” an interval of warm conditions.
known from historical records and indirect evidence like tree rings. And the recent warm spell in the United States happens to be more than offset by cooling elsewhere in the world, so its link to "global" warming is weaker than tenuous.

The careful analysis by our team is laid out in five scientific papers now online at BerkeleyEarth.org. That site also shows our chart of temperature from 1753 to the present, with its clear fingerprint of volcanoes and carbon dioxide, but containing no component that matches solar activity. Four of our papers have undergone extensive scrutiny by the scientific community, and the newest, a paper with the analysis of the human component, is now posted, along with the data and computer programs used. Such transparency is the heart of the scientific method; if you find our conclusions implausible, tell us of any errors of data or analysis.

What about the future? As carbon dioxide emissions increase, the temperature should continue to rise. I expect the rate of warming to proceed at a steady pace, about one and a half degrees over land in the next 50 years, less if the oceans are included. But if China continues its rapid economic growth (it has averaged 10 percent per year over the last 20 years) and its vast use of coal (it typically adds one new gigawatt per month), then that same warming could take place in less than 20 years.

Science is that narrow realm of knowledge that, in principle, is universally accepted. I embarked on this analysis to answer questions that, to my mind, had not been answered. I hope that the Berkeley Earth analysis will help settle the scientific debate regarding global warming and its human causes. Then comes the difficult part: agreeing across the political and diplomatic spectrum about what can and should be done.

**ARTICLE 6**

Title: State of the Climate 2012

Author: Rob Vertessey, Acting Director of Australian Bureau of Meteorology, and Megan Clark, Officer at the Commonwealth Scientific and Industrial Research Organization

Date: 3-13-2012


Australia’s land and oceans have continued to warm in response to rising CO2 emissions from the burning of fossil fuels.

This is the headline finding in the State of the Climate 2012, an updated summary of Australia’s long term climate trends released by CSIRO and the Bureau of Meteorology today (14 March 2012).

The long-term warming trend has not changed.

Each decade has been warmer than the previous decade since the 1950s. Global-average surface temperatures were the warmest on record in 2010 (slightly higher than 2005 and
2011 was the world’s 11th warmest year and the warmest year on record during a La Niña event. The world’s 13 warmest years on record have all occurred in the past 15 years.

On land around Australia the observed warming trends are consistent with the global-scale warming – despite 2010 and 2011 being the coolest years recorded in Australia since 2001.

In the oceans around Australia, sea-surface temperatures have increased faster than the global average, and sea-level rise since 1993 is greater than, or equal to, the global average.

Australian average temperatures over land

Australian annual-average daily mean temperatures showed little change from 1910 to 1950 but have progressively warmed since, increasing by 0.9 °C from 1910 to 2011. The average temperature during the past ten years has been more than 0.5 °C warmer than the World Meteorological Organization’s standard 1961-1990 long-term average. This increase continues the trend since the 1950s of each decade being warmer than the previous.

The warming trend has occurred against a backdrop of natural, year-to-year climate variability. Most notably, El Niño and La Niña events during the past century have continued to produce the hot droughts and cooler wet periods for which Australia is well known. 2010 and 2011, for example, were the coolest years recorded since 2001 due to two consecutive La Niña events.

Rising sea level

Global-average mean sea level for 2011 was 210 mm (± 30 mm) above the level in 1880. The observed global-average mean sea-level rise since 1990 is near the high end of projections from the 2007 Intergovernmental Panel on Climate Change Fourth Assessment Report.

Rates of sea-level rise are not uniform around the globe and vary from year to year. Since 1993, the rates of sea-level rise to the north and northwest of Australia have been 7 to 11 mm per year, two to three times the global average, and rates of sea-level rise on the central east and southern coasts of the continent are mostly similar to the global average. These variations are at least in part a result of natural variability of the climate system.

Increasing sea-surface temperatures

Sea-surface temperatures in the Australian region in 2010 were the highest on record, with nine of the months during 2011 ranked in the top ten warmest months on record. Sea-surface temperatures averaged over the decades since 1900 have increased for every decade. Terrestrial and ocean surface temperatures have shown very similar warming trends over the last century.

The warm sea-surface temperatures in 2010-11 were strongly influenced by La Niña. Ocean temperatures around Australia were warmer during 2010-11 than for any previously identified La Niña event, likely due to the influence of the long-term warming trend of the past century.
Greenhouse gases

Carbon dioxide (CO2) emissions account for about 60% of the effect from anthropogenic greenhouse gases on the earth’s energy balance over the past 250 years. These global CO2 emissions are mostly from fossil fuels (more than 85%), land use change, mainly associated with tropical deforestation (less than 10%), and cement production and other industrial processes (about 4%). Australia contributes about 1.3% of the global CO2 emissions. Energy generation continues to climb and is dominated by fossil fuels – suggesting emissions will grow for some time yet.

CO2 levels are rising in the atmosphere and ocean.

About 50% of the amount of CO2 emitted from fossil fuels, industry, and changes in land-use, stays in the atmosphere. The remainder is taken up by the ocean and land vegetation, in roughly equal parts.

The extra carbon dioxide absorbed by the oceans is estimated to have caused about a 30% increase in the level of ocean acidity since pre-industrial times.

The sources of the CO2 increase in the atmosphere can be identified from studies of the isotopic composition of atmospheric CO2 and from oxygen (O2) concentration trends in the atmosphere. The observed trends in the isotopic (13C, 14C) composition of CO2 in the atmosphere and the decrease in the concentration of atmospheric O2 confirm that the dominant cause of the observed CO2 increase is the combustion of fossil fuels.

Future changes

Australian average temperatures are projected to rise by 0.6 to 1.5 °C by 2030 when compared with the climate of 1980 to 1999. The warming is projected to be in the range of 1.0 to 5.0 °C by 2070 if global greenhouse gas emissions are within the range of projected future emission scenarios considered by the Intergovernmental Panel on Climate Change. These changes will be felt through an increase in the number of hot days and warm nights, and a decline in cool days and cold nights.

Climate models suggest long-term drying over southern areas during winter and over southern and eastern areas during spring. This will be superimposed on large natural variability, so wet years are likely to become less frequent and dry years more frequent. Droughts are expected to become more frequent in southern Australia; however, periods of heavy rainfall are still likely to occur.

Models generally indicate an increase in rainfall near the equator globally, but the direction of projected changes to average rainfall over northern Australia is unclear as there is a lack of consensus among the models.

For Australia as a whole, an increase in the number of dry days is expected, but it is also likely that rainfall will be heavier during wet periods.

It is likely (with more than 66% probability) that there will be fewer tropical cyclones in the Australian region, on average, but the proportion of intense cyclones is expected to increase.
CSIRO and the Bureau of Meteorology will continue to provide observations, projections, research, and analysis so that Australia’s responses are underpinned by science of the highest quality.

**ARTICLE 7**

**Title:** Turn Down the Heat: Why a 4°C Warmer World Must be Avoided

**Author:** Potsdam Institute for Climate Impact Research and Climate

**Date:** 2012

**URL:**
http://climatechange.worldbank.org/sites/default/files/Turn_Down_the_heat_Why_a_4_degree_centrigrade_warmer_world_must_beavoided.pdf

The overall conclusions of IPCC AR4 concerning food production and agriculture included the following: • Crop productivity is projected to increase slightly at mid- to high latitudes for local mean temperature increases of up to 1 to 3°C depending on the crop, and then decrease beyond that in some regions (medium confidence) (WGII 5.4, SPM). • At lower latitudes, especially in seasonally dry and tropical regions, crop productivity is projected to decrease for even small local temperature increases (1 to 2°C) which would increase the risk of hunger (medium confidence) (WGII 5.4, SPM). • Globally, the potential for food production is projected to increase with increases in local average temperature over a range of 1 to 3°C, but ABOVE THIS IT IS PROJECTED TO DECREASE (medium confidence) (WGII 5.4, 5.5, SPM). These findings clearly indicate a growing risk for low-latitude regions at quite low levels of temperature increase and a growing risk for systemic global problems above a warming of a few degrees Celsius. While a comprehensive review of literature is forthcoming in the IPCC AR5, the snapshot overview of recent scientific literature provided here illustrates that the concerns identified in the AR4 are confirmed by recent literature and in important cases extended. In particular, impacts of extreme heat waves deserve mention here for observed agricultural impacts (see also Chapter 2). This chapter will focus on the latest findings regarding possible limits and risks to large-scale agriculture production because of climate change, summarizing recent studies relevant to this risk assessment, including at high levels of global warming approaching 4°C. In particular, it will deliberately highlight important findings that point to the risks of assuming a forward projection of historical trends. Projections for food and agriculture over the 21st century indicate substantial challenges irrespective of climate change. As early as 2050, the world’s population is expected to reach about 9 billion people (Lutz and Samir 2010) and demand for food is expected to increase accordingly. Based on the observed relationship between per capita GDP and per capita demand for crop calories (human consumption, feed crops, fish production and losses during food production), Tilman et al. (2011) project a global increase in the demand for crops by about 100 percent from 2005 to 2050. Other estimates for the same period project a 70 percent increase of demand (Alexandratos 2009). Several projections suggest that global cereal and livestock production may need to increase by between 60 and 100 percent to 2050, depending on the warming scenario (Thornton et al. 2011). The historical
context can on the one hand provide reassurance that despite growing population, food production has been able to increase to keep pace with demand and that despite occasional fluctuations, food prices generally stabilize or decrease in real terms (Godfray, Crute, et al. 2010). Increases in food production have mainly been driven by more efficient use of land, rather than by the extension of arable land, with the former more widespread in rich countries and the latter tending to be practiced in poor countries (Tilman et al. 2011). While grain production has more than doubled, the area of land used for arable agriculture has only increased by approximately 9 percent (Godfray, Beddington, et al. 2010). However, although the expansion of agricultural production has proved possible through technological innovation and improved water-use efficiency, observation and analysis point to a significant level of vulnerability of food production and prices to the consequences of climate change, extreme weather, and underlying social and economic development trends. There are some indications that climate change may reduce arable land in low-latitude regions, with reductions most pronounced in Africa, Latin America, and India (Zhang and Cai 2011). For example, flooding of agricultural land is also expected to severely impact crop yields in the future: 10.7 percent of South Asia’s agricultural land is projected to be exposed to inundation, accompanied by a 10 percent intensification of storm surges, with 1 m sea-level rise (Lange et al. 2010). Given the competition for land that may be used for other human activities (for example, urbanization and biofuel production), which can be expected to increase as climate change places pressure on scarce resources, it is likely that the main increase in production will have to be managed by an intensification of agriculture on the same—or possibly even reduced—amount of land (Godfray, Beddington et al. 2010; Smith et al. 2010). Declines in nutrient availability (for example, phosphorus), as well as the spread in pests and weeds, could further limit the increase of agricultural productivity. Geographical shifts in production patterns resulting from the effects of global warming could further escalate distributional issues in the future. While this will not be taken into consideration here, it illustrates the plethora of factors to take into account when thinking of challenges to promoting food security in a warming world. New results published since 2007 point to a more rapidly escalating risk of crop yield reductions associated with warming than previously predicted (Schlenker and Lobell 2010; Schlenker and Roberts 2009). In the period since 1980, patterns of global crop production have presented significant indications of an adverse effect resulting from climate trends and variability, with maize declining by 3.8 percent and wheat production by 5.5 percent compared to a case without climate trends. A significant portion of increases in crop yields from technology, CO2 fertilization, and other changes may have been offset by climate trends in some countries (Lobell et al. 2011). This indication alone casts some doubt on future projections based on earlier crop models. In relation to the projected effects of climate change three interrelated factors are important: temperature-induced effect, precipitation-induced effect, and the CO2-fertilization effect. The following discussion will focus only on these biophysical factors. Other factors that can damage crops, for example, the elevated levels of tropospheric ozone (van Groenigen et al. 2012), fall outside the scope of this report and will not be addressed. Largely beyond the scope of this report are the far-reaching and uneven adverse implications for poverty in many regions arising from the macroeconomic consequences of shocks to global agricultural production from climate change. It is necessary to stress here that even where overall food production is not reduced or is even increased with low levels of warming, distributional issues mean that food security will remain a precarious matter or worsen as different regions
are impacted differently and food security is further challenged by a multitude of nonclimatic factors.
Appendix

APPENDIX D: SOLVENCY EVIDENCE

Track down these sources and read through the articles. Both articles are important for solvency.

Specht 13

Alonso-Pippo et al. 8