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# How to Win Legislative Victories and Influence Legislators in Indiana – An Open Letter to Public Affairs Professionals

Christina Schneider<sup>1</sup>

**Abstract:** *Every January in Indianapolis, members of the General Assembly—100 Representatives and 50 Senators—convene to vote on bills that will modify, or create, Indiana laws. These elected officials rely on suggestions from constituents, lobbyists, and public affairs practitioners. By understanding the timeframe and process of bill creation, non-profit and government professionals can effectively advocate for their agencies and stakeholders.*

*As a public affairs professional, you have the ability to shape, and even craft, new laws in Indiana. Members of the General Assembly need your help creating bills that benefit their constituents. If you understand the legislative process, and know when to reach out to elected officials, you can affect powerful change for your stakeholders. As a former Statehouse intern, I learned the most effective time periods for influencing legislators, and I want to share them with you.*

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<sup>1</sup> Christina Schneider interned at the Indiana Statehouse, where she often ate for free at the expense of organizations attempting to lobby the General Assembly. Christina is currently pursuing her bachelor's in Anthropology and working as a freelance writer. Her pieces can be seen in the IUPUI *Campus Citizen*, on ConstantContent.com, and across the internet. <sup>1</sup>

As a public affairs professional, you have the ability to shape, and even craft, new laws in Indiana. Members of the General Assembly need your help creating bills that benefit their constituents. If you understand the legislative process, and know when to reach out to elected officials, you can affect powerful change for your stakeholders. As a former Statehouse intern, I learned the most effective time periods for influencing legislators, and want to share them.

For a bill to become a law, the bill must navigate a complex journey with many potential dead ends. In special circumstances, the bill can be carried to the end by highly motivated legislators. During the 2012 legislative session, Senate Bill 4, which strengthened penalties for human trafficking, passed the House and Senate in less than a month because legislators wanted it in effect before the Super Bowl<sup>2,3</sup>. However, for the vast majority of bills, becoming a law is a process of four to six months with potential detours looming along the way. As a public affairs professional, you must be prepared to steer your law around these obstacles with the help of a legislator, or two.

In Indiana, a bill's journey must begin with a legislator agreeing to sponsor the bill. No matter how many lobbyists or constituents clamor for legal changes, a senator or representative must agree to attach his or her name to the document before it can begin its journey through the legislative process. Finding a legislator sympathetic to your organization's needs depends on your stakeholders and clients. For non-profit organizations, you should start with the representative and senator representing the district where the organization is headquartered. For government agencies and non-profit organizations needing additional contacts, look for legislators with a personal interest in your mission. For example, an education-oriented

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<sup>2</sup> [http://www.in.gov/portal/news\\_events/74075.htm](http://www.in.gov/portal/news_events/74075.htm)

<sup>3</sup> <http://www.in.gov/legislative/bills/2012/IN/IN0004.1.html>

organization should contact teachers and members of the Education committee. Once you have found a legislator willing to sponsor your bill, the elected official must bring it to the Legislative Services Agency (LSA).

The LSA is a non-partisan agency that employs legal and financial experts who evaluate bills and the potential effects on existing law, state revenue, and expenditures. In many cases, the LSA crafts the language of a bill based on the vision of the legislator who brings the idea to the agency. Because there are 150 legislators, all of whom must send their bills through the LSA, the agency needs several months to evaluate each bill. If you want a bill to pass during session, which begins in January, you cannot start working on it any later than the fall. Regardless of when you begin, once your bill has passed through the LSA, the next step is filing it with the leader of your legislator's chamber.

The leader of the House of Representatives is referred to as the Speaker, and the Senate is led by the President pro tempore; both have great power in their respective chambers because they can single-handedly stop bills. Senators can start filing bills with the President pro tempore in October, and Representatives can start at the end of November. Both leaders stop accepting bills in the first two weeks of January. Once a bill is filed with the office of the Speaker or the President pro tem, it is either killed or assigned to a committee. For public affairs practitioners, this may be the most nerve-wracking step of guiding a bill through the legislative process. Legislative leaders are extremely busy and difficult to reach, meaning you will most likely not have a chance to lobby for your bill. Hopefully, your sponsoring legislator will have political capital, your bill will be strong, or the Speaker or President will take a liking to your bill and it will pass on to committee.

A committee is a group of legislators who have experience or interest in particular areas and are theoretically well-suited to evaluate the merits of related bills. A complete list of committees can be found on the state's website<sup>4</sup>. Each committee is led by a chairperson who decides if and when bills are heard by the committee. Before committees vote on bills, they want to hear public testimony about the proposed law. You, or the appropriate member of your organization, should go to committee meetings to testify in support of your bills. In some cases, you may want to mobilize volunteers or other stakeholders to testify; you can also solicit individual meetings with committee members to discuss your bill before it is heard. When a committee votes on a bill, the committee can choose to amend the bill and rehear it or pass it as is. Once the bill passes committee, it goes to the floor and no further public testimony will be heard.

When a bill reaches the floor, the Speaker or President pro tem can choose to kill the bill or send it to Second Reading. During Second Reading, the bill is discussed by the entire House or Senate; legislators can propose amendments to the bill and the Speaker or President pro tem can choose to hear or deny the amendments. If the bill passes by majority vote during Second Reading, any potential amendments are incorporated and the bill is sent to Third Reading. No amendments can be added during Third Reading; legislators can only vote yea or nay. If a bill passes Third Reading, the bill is considered to have passed the House or Senate and is sent to the opposite chamber, where it again journeys through potential amendments, committees, Second Reading, and Third Reading. If a bill passes both houses, it is sent to a joint House-Senate committee where any differences—for example, if the House amended the bill and the Senate did not—are reconciled and the bill is sent to the Governor to be signed into law.

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<sup>4</sup> <http://www.in.gov/apps/lisa/session/billwatch/billinfo?request=getCommitteeList>

Traditional lobbying leads to frustration; your organization can spend thousands of dollars hosting a dinner or mailing information to legislators only to watch your bill die early in the legislative process. You can, however, change your lobbying tactics and see your organization succeed at the Statehouse. You work in public affairs because you're passionate and knowledgeable about your organization; now you know what you need to do to effectively share your expertise with the Indiana General Assembly.



## Guiding “Smart-on-Crime” Legislation through the Texas Bill-Birthing Process

Ana Yáñez-Correa, Ph.D.,<sup>5</sup> Amir Tavakkoli,<sup>6</sup> Maria Rooijakkers<sup>7</sup>

*Abstract: The Texas Criminal Justice Coalition (TCJC) located in Austin, Texas, is a nonprofit working toward developing and implementing real solutions in the Texas juvenile and criminal justice system. In 2013, TCJC was able to push 50 smart-on-crime policies into law by working with representatives, senators, legislative staffers, practitioners, advocates, and others.*

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<sup>5</sup> Ana Yáñez-Correa earned a Bachelor of Science in Criminal Justice and a Master’s Degree in Public Administration; she also holds a Ph.D. in Policy and Planning in Education Administration. Ana has served as the Executive Director of TCJC since 2005 and was formally honored in 2007 by the Texas House of Representatives and Texas Senate for her work and the work of TCJC in finding real solutions for the criminal justice system.

<sup>6</sup> Amir Tavakkoli is a law school student at Texas Southern University/Thurgood Marshall School of Law in Houston, Texas. He graduated with honors from the University of Houston with a dual degree in Political Science and Sociology. Amir’s past experience includes working for the Harris County District Attorney’s Office; Office of Congressman Al Green in Washington, D.C.; Office of Texas State Representative Garnet Coleman; the Houston Bar Association; and the 125<sup>th</sup> Civil Court in Harris County with Judge Kyle Carter.

<sup>7</sup> Maria Rooijakkers graduated with the highest distinction from Purdue University in 2012. She graduated with an honors degree in Liberal Arts and double-majored in Honors Anthropology and Honors Sociology. She is currently studying criminal justice in the SPEA department at IUPUI. She accepted a graduate assistantship from SPEA IUPUI and currently serves as the President of the Public Affairs Student Association.

The Texas Criminal Justice Coalition (TCJC) is a 501(c)(3) nonprofit organization based in Austin, Texas, that aims to advance policy solutions for criminal justice issues. Prior to becoming an independent organization, TCJC was part of ProTex, an organization geared toward coordinating a broad range of advocacy efforts across Texas. TCJC's initial role was to bring together criminal justice interest groups and to support their collective efforts through strategic planning, networking, and organizing. In 2004, ProTex closed and TCJC took over the nonprofit status and assumed a more active role in the Texas policy landscape by developing policy research, advocacy, and public education campaigns with the goal of advancing solutions to juvenile and criminal justice issues.



The role TCJC plays comes at an important time in the history of Texas. Known as a “tough-on-crime” state, Texas currently houses the largest population of incarcerated individuals in the country. This is in large part due to poor policies that disproportionately target individuals with substance abuse and mental health problems, individuals of color, and the economically disadvantaged. With few resources available to these populations, they are more likely to be sentenced to prison and to recidivate after reentering society. TCJC

aims to address these juvenile and criminal justice issues and many related ones to create accountability, transparency, safety, efficiency, and cost savings for the system. One important avenue in which TCJC addresses these issues is through advocacy during Texas legislative sessions.

During the 2013 legislative session, in working with representatives, senators, legislative staffers, practitioners, advocates, and others, TCJC was able to push for 50 smart-on-crime policies to become law.<sup>8</sup> These policy efforts mirror TCJC's projects:

- **Solutions for Youth Justice** to ensure that the needs of youth are addressed with effective, age-appropriate strategies, that they are placed in safe settings and/or supervised by well-trained personnel, and that they are provided the tools to become successful members of our communities
  
- **Solutions for Pretrial, Defense, and Innocence** to increase individuals' access to pretrial services, which reduces costly and often unnecessary jail overcrowding by defendants awaiting trial, to improve access to meaningful indigent defense

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<sup>8</sup> For more information on the bills that were passed in 2013 see:

<http://www.texascjc.org/sites/default/files/uploads/2013%20Legislative%20Wrap%20Up.pdf>

representation through increased state funding and system accountability, and to promote best practices that will reduce wrongful convictions

- **Solutions for Safely Reducing Incarceration** to advance proven and cost-efficient strategies, such as diversion programs that provide supervision as needed and treatment that works, and to improve effective sentencing that more appropriately fits the crime
  
- **Solutions for Confinement and Reentry** to ensure that individuals have access to pre- and post-release rehabilitative programs and services, effective post-release supervision, and assistance finding employment and other necessities, which will help them live successfully in Texas communities.

The process of taking an idea or interest and making it a law is not an easy one as the legislative process is set up to reject more bills than it passes.<sup>9</sup> The long journey starts when constituents show concern for a specific area of interest or topic. Those wanting to influence public policy, including constituents, should conduct thorough research on the matter to improve their chances of persuading their elected officials to address their concerns or support their ideas. In Texas, legislators collect constituent concerns, solicit information, conduct research, and draft bill language during the interim between legislative sessions. The Texas Legislature, unlike most other states, is only in session for approximately six months in odd-numbered years. Although a bill may be pre-filed in the November prior to legislative session, the regular session convenes in January and adjourns after only 140 days. Once the bill introduced in the House or the Senate, it is numbered, read for the first time, and then referred to a committee. The committee chair decides if, and when, a bill will have a hearing. While many bills get a committee hearing open to public testimony, and some of those are referred out of the committee for consideration by the House or Senate floor, the majority of bills simply do not gain the necessary momentum and are left pending in committee, thus dying at the end of session.

The process of bills getting out of the committee to potentially be voted on by the House or the Senate is quite complex. Often, to get a favorable vote, parties on different sides of the bill must work together and compromise to come up with an amended version of the bill, thus giving it the highest possibility of success. If the bill receives a favorable vote out of its assigned committee, it goes to the Calendars Committee, which would then decide when, or even if, the bill should be placed on the House or Senate floor for consideration. Objections to a bill may keep it pending and the bill may never get a vote. Organizations, such as TCJC, monitor all stages of this process and may provide research and relevant data as needed to support legislators or their staff in developing solutions to improve chances that relevant legislation might survive.

Each bill must have three readings in the full chamber of the House and the Senate with opportunities for debate and amendment. The Texas Legislature is bi-cameral and requires

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<sup>9</sup> According to the Legislative Reference Library of Texas, only about 20 percent of filed bills pass each session.

agreement of exact bill language and passage by both the House and the Senate for legislation to be enrolled; thus requiring the same process in both chambers. If any amendments are made to the bill in one chamber, the new version of the bill must be returned to the other chamber for reconciliation. After the long and complex process to pass a bill through both legislative chambers, the governor has the right to veto a bill. For example, House Bill (HB) 1790, a key bill during the 2013 session, was vetoed by Governor Rick Perry. HB 1790 authorized a judge to reduce a person's state jail offense – provided the offense was not violent or sexually based – to a Class A misdemeanor after the person successfully completed all supervision, victim restitution, treatment, and other requirements set by the judge. Prior to modifying the record of conviction, the bill required the judge to obtain the consent of the district attorney, and modification of the record must have been shown to be in the best interests of justice. HB 1790 incentivized a probation term, which is more effective — as well as being 31 times less expensive per day — than a state jail term. Also, individuals have little if any access to treatment and program options in jails. Had the bill become law, it would have reduced the likelihood of a felony conviction on an individual's record, thereby increasing a person's access to employment, housing, and other critical tools for personal responsibility.

During the interim (when the Texas Legislature is not in session), TCJC works with peers, policymakers, practitioners, and community members to identify areas of improvement, conduct research, and provide public education materials on important issues in the criminal and youth justice arenas.

### **Intern Experiences**

Amir Tavakkoli spent the spring and summer of 2013 actively involved in many projects at TCJC. He has used his legal background to participate in extensive research and writing. From giving oral and written testimony to both chambers of the Texas Legislature on important criminal justice bills, to participating in detailed discussions with advocates and practitioners about solutions to criminal justice issues, Amir has learned and grown both professionally and personally. Not only does TCJC offer great involvement in Texas politics, its friendly environment has motivated him to come to work and work passionately. TCJC is an organization where people are friendly and get the job done on a daily basis.

Maria Rooijackers spent the summer of 2013 interning for TCJC. She was given two research projects for the next legislative session in Texas. The first project was aimed at exploring housing barriers for individuals and making recommendations on how to address them. As part of the project, Maria had the opportunity to speak with local groups about some of the current models used in addressing these barriers. Furthermore, she was able to visit a Salvation Army site to interview homeless individuals on their experiences in finding housing. The second project concerned victim support services in Texas. Since the criminal justice system focuses primarily on punishing individuals for their wrongs against the state, victims often lose their voices and feel neglected. The main goal of this project was to research ways that the needs of

victims, communities, and those individuals who committed the crime could be met through restorative justice. This project gave Maria a new perspective on criminal justice approaches.

### **TCJC's Executive Director**

Ana Yáñez-Correa started at TCJC in 2005 as the Project Director for the Solutions for Sentencing & Incarceration Project, which focused on promoting proven, pro-family criminal justice policies that save taxpayers money and improve the safety of Texas communities. In late 2005, she became the Executive Director of TCJC. In this role, she has successfully fostered relationships among a wide range of coalition partners, criminal justice practitioners, law enforcement groups, civil rights organizations, and other community members, allowing TCJC to promote policies that serve all facets of society. One of her greatest accomplishments as Executive Director includes receiving an honor from the Texas House of Representatives and Texas Senate in 2007. Also, during the 2009, 2011, and 2013 legislative sessions, Ana has been instrumental in educating and organizing key stakeholders about the importance of adopting policies on fair defense, prison diversion, probation and parole reform, reentry, and overall criminal and juvenile justice efficiency.

**Acknowledgments:** As part of the TCJC team, want to thank the representatives, senators, legislative staffers, practitioners, advocates, and TCJC staff and board members who have continued to prove their commitment to reducing over-reliance on incarceration, promoting best justice practices, increasing accountability, saving taxpayer dollars, and creating safer communities.

To learn more about TCJC, go to [www.TexasCJC.org](http://www.TexasCJC.org) where you can also follow us on Facebook, Twitter, and sign up to receive our monthly E-Alerts.



# Comprehensive v. Abstinence-Only Sex Education in Public Schools: A Debate over Individual Health and Religious Belief

Catherine Jackson<sup>10</sup>

*Abstract: While there is little disagreement remaining over the presence of sexual education in public schools in the United States, the nation is still divided over one key issue. Specifically, there is dissidence over what method is most appropriate to convey sexual education in a way that promotes optimal mental, emotional and sexual health for students. Abstinence only education purposely excludes certain information in its teachings for fear of pushing youth towards sexual and deviant behaviors, and it promotes a lifestyle of no sexual content whatsoever until marriage. In contrast, comprehensive education is explicit in both healthy sexual activity and alternative sexual relationships. This essay examines both of the methods, their strengths and weaknesses, their demographics and their overall impact on youth.*

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<sup>10</sup> Catherine Jackson graduated from Indiana University-Bloomington in 2012 with a Bachelor's degree in English with a concentration in Public and Professional Writing. Recently, she was named an Indy Food Fellow by the newly-founded Indy Food Council, and will be working with the Marion County Public Health Department to create a database that tracks food system programs. Catherine is currently a graduate student attending IUPUI's School of Public and Environmental Affairs, and is studying for her Masters of Public Affairs with a concentration in nonprofit management. Her professional experience entails nonprofit fundraising, grant writing and development.

## Introduction

### Universal Acceptance of the Presence of Sex Education in Public Schools

According to the Henry J. Kaiser Family Foundation, the “debate over whether to have sex education in American schools is over.”<sup>11</sup> For 93 percent of Americans, this is true.<sup>12</sup> Sex education in public school is largely viewed as a necessity for the healthy growth and personal safety of students, with curricula being taught during students’ elementary years throughout high school, the time period during which youth generally have open access to sexual relationships without parental supervision. Conversely, universal agreement concerning the presence of sex education in public schools does not easily translate to a general agreement upon the method by which sex education is taught; in fact, the dissension over how to successfully teach sex education to students is widely controversial and far-reaching. This disagreement is important because it:

raises some broad questions concerning the general purposes of education; it has become a matter of considerable public debate focusing on the interface between schools and families and between governments and families; and it has major implications for the training of teachers, for the development of curricula and curricular materials, and for the deployment of resources in the educational system.<sup>13</sup>

A large portion of the disagreement stems from inconsistent terminology, differing ranges of specificity, and dissimilar teaching methods.<sup>14</sup> Generally, Americans are divided into two opposing groups in regards to their thoughts on sexual education. A study performed by the

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<sup>11</sup> Henry J. Kaiser Family Foundation. (2004). Sex education in America – summary. Retrieved from <http://www.kff.org/newsmedia/upload/Sex-Education-in-America-Summary.pdf>

<sup>12</sup> *Ibid.*

<sup>13</sup> Arcus, M. (1986). Should family life education be required for high school students: an examination of the issues. *Family Relations*, 35(3), p.347

<sup>14</sup> *Ibid.*

Henry J. Kaiser Family Foundation in 2004 shows that 47 percent of American respondents prefer abstinence-only sex education, whereas a 51 percent majority prefer comprehensive sex education.<sup>15</sup>

### *Nature of the Problem*

Abstinence-only sexual education is primarily upheld in a religious light. This teaching method focuses on the premise that introducing the subject of sex education to youth is the right of the parent, not necessarily the mandate of government-funded public schools—rather; it should be left to the parents’ own faith and beliefs to govern what their children are taught. Furthermore, proponents of abstinence-only education argue that sex before marriage is immoral and should not be suggested to children because it would constitute temptation. Abstinence, therefore, is the only way to ensure safety and adherence to religious doctrine. In addition, topics such as masturbation and same-sex relationships are deemed immoral and should not be taught to impressionable children under such a curriculum.

In contrast, those in favor of comprehensive sexual education argue that, with deadly sexually transmitted infections (STIs) such as HIV and Malaria plaguing the world and our communities, it is necessary to enlighten children during their stage of sexual development—before they become sexually active—so they can understand and utilize safe sex practices.<sup>16</sup> According to proponents of comprehensive sexual education, abstinence-only curricula do not help in this regard because they are limited in their application and do not address the varied topics that youth will possibly encounter later in life, such as peer pressure, condom usage, and

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<sup>15</sup> Henry J. Kaiser Family Foundation. (2004).

<sup>16</sup> Holmberg, S., McNabb, S., & Aral, S. (2004). HIV, sexually transmitted diseases, tuberculosis, and malaria: resurgence and response. *Emerging Infectious Diseases*, 10(11), retrieved from: [http://wwwnc.cdc.gov/eid/article/10/11/04-0797\\_04\\_article.htm](http://wwwnc.cdc.gov/eid/article/10/11/04-0797_04_article.htm)

venereal diseases. In addition, advocates feel that children should be taught about non-intercourse methods, such as masturbation, and different relationship lifestyles (same-sex, bisexual, transvestite, etc.) because they are becoming more prominent aspects of modern society.

## **Sexual Education in Public Schools**

### *Early 20<sup>th</sup> Century Notions of School-based Sex Education*

The importance of sex education in public schools was being discussed as early as the beginning of the 20<sup>th</sup> century. In 1913, Dr. Ella Flagg Young gathered support for her “Chicago Experiment,” which emphasized the need for sex education in public schools by “integrating scientific appeals about sexual education into popular discourses on modern research methods, education, and physical health”.<sup>17</sup> By incorporating arguments of sexual health and practices into legislature supported by general opinion and grounded science, Young was at the forefront of using politics and eloquence of speech to push the presence of sex education into American public schools. This technique suggests that “contemporary health advocates [should] consider following Young’s lead, that is, using the warrants of existing conversations to frame their scientific findings rather than depending on empirical science alone to build support for educational policy decisions”.<sup>18</sup> Because the topic of sex education in public schools is embroiled by opposing opinions and religious beliefs, politicians and healthcare leaders should take note that simply presenting raw data to the public will not succeed in educating it.

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<sup>17</sup> Jensen, R. E. (2007). Using science to argue for sexual education in U.S. public schools: Dr. Ella Flagg Young and the 1913 Chicago experiment. *Science Communication*, 29(2), p218.

<sup>18</sup> *Ibid.*, p.221.

Another early promoter of sex education was Dr. Helen Williston Brown. In her 1919 publication *Some Problems in Sex Education*, Brown argued that public schools are the “obvious mechanism” for effectively teaching sex education, and because of the “ignorance and prejudice of parents,” it is difficult to be successfully taught at home.<sup>19</sup> In a surprisingly modern view, Brown asserts the best method by “which to accomplish the healthful integration of the characters of our young people” is sexual education, and psychopathologists “will find no more fruitful field in which to labor than that of sex education”.<sup>20</sup> While this early perspective points favorably toward sex education in public schools, it does not draw conclusions about the most effective, standard method of sex education since it was only just recently in the late 20<sup>th</sup> century that the United States approved the mere *presence* of sex education in public schools. Over the course of the 20<sup>th</sup> century, federal funding and legislation for sexual education grew to favor comprehensive programs over abstinence-only curricula, influencing the types of courses taught in public schools. With abstinence-only sex education groups losing funding and support in national affairs, the current administration has focused on funding “‘evidence-based’ sex education programs, specifically those that show results in ‘randomized, controlled research trials’”.<sup>21</sup> By this method, the federal government will continue to support sex education in public schools, while increasing accountability and developing systematic approaches to analyze programs in an entirely objective and nonpartisan manner.

## **Abstinence-Only Sex Education in Public School**

### *What is Abstinence-Only Sex Education?*

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<sup>19</sup> Brown, H. (1919). Some problems in sex education. *The Journal of Abnormal Psychology*, 14(4), p.296.

<sup>20</sup> *Ibid.*

<sup>21</sup> Williams, J. C. (2011). Battling a sex-saturated society: the abstinence movement and the politics of sex education. *Sexualities*, 14(4), p.419.

Abstinence-only sex education is defined as teaching “abstinence from all sexual activity as the only morally correct option for unmarried young people” and that “a mutually faithful monogamous relationship in the context of marriage is the expected standard of human sexual activity”.<sup>22</sup> In addition, abstinence-only teachers profess that any sexual activity that is performed outside of marriage is considered dangerous with regard to mental, emotional and physical health.<sup>23</sup> This includes all sexual activity or contact, and is not just consigned to youth but adults as well.<sup>24</sup> Generally, abstinence-only sex education supporters oppose comprehensive sex education because they believe the teachings undercut family values, promote wanton sexual activity and, in effect, cause teen pregnancy and disobedience.<sup>25</sup>

A major argument of abstinence-only sex education stems from the First Amendment of the U.S. Constitution, which specifically states, “Congress shall make no law [...] prohibiting the free exercise” of religion by American citizens.<sup>26</sup> Typically conservative, abstinence-only supporters believe that it is their right as parents to teach their children what they feel is appropriate in terms of sex education and religious beliefs.

The abstinence-only movement “links abstinence to Evangelical Christian morality, sexual purity, and heterosexual marriage.”<sup>27</sup> Many supporters of abstinence-only sex education are against the perceived “overly sexualized culture” of modern society, and plan to “undercut

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<sup>22</sup> Advocates for Youth. (2001). Toward a sexually healthy America: roadblocks imposed by the federal government’s abstinence-only-until-marriage education program. p.7. Retrieved from: <http://www.advocatesforyouth.org/storage/advfy/documents/abstinenceonly.pdf>.

<sup>23</sup> *Ibid.*

<sup>24</sup> Williams, J. C. (2011). p.417 & 425.

<sup>25</sup> Arcus, M. (1986). p.350.

<sup>26</sup> US National Archives and Records Administration. (n.d.). Constitution of the united states: amendments 11 – 27. Retrieved from: [http://www.archives.gov/exhibits/charters/constitution\\_amendments\\_11-27.html](http://www.archives.gov/exhibits/charters/constitution_amendments_11-27.html)

<sup>27</sup> Williams, J. C. (2011). p.419

anti-Christian values that surround teens” by educating young students about the moral benefits of abstinence.<sup>28</sup>

*What Constitutes Effective and Supportive Abstinence-Only Sexual Education?*

It is somewhat difficult to clearly define an effective and supportive abstinence-only sexual education. Supporters argue that parents should have the right to teach their children about sex. However, this can create a situation in which parents may “express discomfort to do so, admitting lack of knowledge about how to discuss sexuality with their children in an age-appropriate manner and embarrassment as the primary barriers to communication”.<sup>29</sup> This situation can lead to miscommunication and unintended consequences to both the sexual health of the child and the parent-child relationship. Marianne Channas Cockroft, a parish nurse and author of *When the Topic is Sex: Facilitating Parent-Child Communication in the Faith Community*, urges “nurses within faith communities to teach families and promote discussion between parents and children about sexuality, thereby encouraging sexual health in adolescents within their congregational settings”.<sup>30</sup>

Unlike abstinence-only sex education, Cockroft’s methods encompass all aspects of sex education, though they emphasize a Christian background to help support lessons. She argues that “family connectedness and religion have been and continue to be protective factors against adolescent risk behavior,” and she emphasizes a connection between physical, emotion, and social growth with spiritual health.<sup>31</sup> By focusing on continued communication between child and parent and promoting honesty, Cockroft clearly distances her methods from those of

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<sup>28</sup> *Ibid.* pp.420-421.

<sup>29</sup> Cockroft, M. C. (2012). When the topic is sex: facilitating parent child communication in the faith community. *Journal of Christian Nursing*, 29(3), p.153.

<sup>30</sup> *Ibid.*

<sup>31</sup> *Ibid.* p. 155.

abstinence-only sex education programs, which tend to be “fear based... [and] are designed to control young people’s sexual behavior by instilling fear, shame, and guilt”.<sup>32</sup> In addition, Cockroft connects her methods to empirical evidence garnered from the American Academy of Pediatrics, which recommends “talking about sexuality with children early...with frequent ongoing dialogue continuing throughout adolescence”.<sup>33</sup>

Cockroft encourages parents to reach out to their community churches and find effective support in teaching their children, as many parishes have nurses who are familiar with the struggle between religious belief and health science. She argues that “teaching sexuality within the context of a faith community provides parents a framework that incorporates cultural and social norms and family values”.<sup>34</sup> While her methods do not explicitly touch on the topics of homosexuality and non-Christian beliefs, Cockroft designed the parent-child sex education workshops to allow “opportunities to acknowledge similarities and differences related to physical, social, or behavioral developmental characteristics, and [facilitate] discussions of respect for individual uniqueness”.<sup>35</sup>

#### *Arguments against Abstinence-Only Sex Education*

However, not all abstinence-only sex education programs are as inclusive as those developed by professionals such as Cockroft; in fact, abstinence-only sex education programs can prove detrimental to a youth’s sexual and physical health over the course of his or her sexual development. It is widely believed that “abstinence-only education contains medically inaccurate information and is not effective in changing adolescent sexual behaviors by delaying sex or by

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<sup>32</sup> Advocates for Youth. (2001). p.8.

<sup>33</sup> Cockroft, M.C. (2012). p.153.

<sup>34</sup> *Ibid.*

<sup>35</sup> *Ibid.* p. 154.

reducing the number of sexual partners”.<sup>36</sup> In addition, in the early 1990s, “educators particularly expressed concern that abstinence-only-until-marriage programs are, in effect, censoring more comprehensive programs”.<sup>37</sup> Abstinence-only sex education programs “often contain biased information about gender, family structure, sexual orientation, and abortion”.<sup>38</sup> Overall, the negative impression of abstinence-only sex education is that it is outdated, harmful, and religiously biased. Although this unfounded viewpoint groups all abstinence-only programs unfairly, the lack of standardization within the programs makes it difficult to judge what is helpful and what is not.

### *Basic Right to Learn Accurate Information*

Another argument against abstinence-only sex education is that it is impeding upon the rights of students and youth. The 14<sup>th</sup> Amendment, Section 1, states “no State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States...nor deny to any person within its jurisdiction the equal protection of the laws”.<sup>39</sup> This means everyone is given the same rights and privileges; the problem with abstinence-only sex education is that it does not fairly live up to the purpose of the amendment. One side of the argument claims that “attempts by schools to provide this education and attempts by the state to require it usurp traditional parental rights”.<sup>40</sup> However, the other side claims that parents do not have the right to do this because “the child's right to education and to information” is imperative for his or her healthy development.<sup>41</sup> This involves the “right to noninterference,” which implies

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<sup>36</sup> Williams, J.C. (2011). p.418.

<sup>37</sup> Advocates for Youth. (2001). p.10.

<sup>38</sup> *Ibid.* p.8.

<sup>39</sup> US National Archives and Records Administration. (n.d.). *Bill of Rights*. Retrieved from: [http://www.archives.gov/exhibits/charters/bill\\_of\\_rights\\_transcript.html](http://www.archives.gov/exhibits/charters/bill_of_rights_transcript.html)

<sup>40</sup> Arcus, M. (1986). p.352.

<sup>41</sup> *Ibid.*

that a child cannot understand what is or is not wrong with certain educational methods, but must be given access either way because “there is no prerogative for an individual to interfere with the choices of another just because one disapproves of that choice”.<sup>42</sup> This right can only be overridden with “adequate justification” but this must fall under either “cases of moral wrongness (such as treating others unfairly or exploiting them); cases of causing harm to others (either physical harm or psychological harm); and cases of justified paternalism”.<sup>43</sup> In light of this argument, it is important to consider the effects—both positive and negative—of the alternative to abstinence-only education.

## **Comprehensive Sex Education in Public Schools**

### *What is Comprehensive Sex Education?*

Comprehensive sex education programs focus on sexual health by professing “the benefits of abstinence while also teaching about contraception and disease prevention methods” and continue throughout a child’s entire kindergarten through high school career.<sup>44</sup> The programs provide:

developmentally appropriate information on a broad variety of topics related to sexuality such as sexual development, reproductive health, interpersonal relationships, affection, intimacy, body image, and gender roles. Comprehensive programs provide opportunities for students to develop communication, decision-making, and other personal skills.<sup>45</sup>

Comprehensive sex education programs are interrelated to the belief that “sexuality is a fundamental aspect of people’s lives, and is closely linked with their physical and mental

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<sup>42</sup> *Ibid.* p.353.

<sup>43</sup> *Ibid.*

<sup>44</sup> Advocates for Youth. (2001). p.7.

<sup>45</sup> *Ibid.*

health”.<sup>46</sup> In promoting and teaching comprehensive sex education, educators focus on the student’s entire wellbeing, rather than simply arguing against any sexual experiences entirely. There are other comprehensive sex education programs, named “abstinence-plus,” which promote abstinence in an inclusive and explicit environment; one that promotes abstinent behaviors but does not exclude important teachings on sexual and relationship matters.<sup>47</sup> Supporters of comprehensive sex education programs in public schools claim that their positive impact includes outcomes such as “helping individuals choose and prepare for adult roles; strengthening family life, both at the present and in the future; encouraging responsible behavior; and increasing acceptance of and tolerance for diverse life styles”.<sup>48</sup> One of the primary functions of comprehensive sex education programs is to give students effective advice to use in situations that might occur in social settings among their peers and later in their lives as well.

### Misconceptions Created by a Lack of Information

If not given the proper information and resources to learn about sexual health, youth are likely to grow up believing misconceptions that could harm them both physically and mentally. In 2001, a study by the Advocates for Youth showed that a number of U.S. teens “report oral and/or anal intercourse while considering themselves ‘virgins’”.<sup>49</sup> This is alarming since the teens’ belief that they are not having sexual relations could imply an improper use or lack of sexual protection such as condoms. Moreover, these curricula may not fully educate students about STIs and other sexual risks. Research shows that “adolescents who participated in

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<sup>46</sup> Miller, S. A. & Byers, E. S. (2010). Psychologists’ sexual education and training in graduate school. *Canadian Journal of Behavioural Science*, 42(2), p.93.

<sup>47</sup> Walcott, C. M., Chenneville, T., & Tarquini, S. (2011). Relationship between recall of sex education and college students' sexual attitudes and behavior. *Psychology In The Schools*, 48(8), p.830.

<sup>48</sup> Arcus, M. (1986). pp.349-350.

<sup>49</sup> Howell, Marcela. (2001). The future of sexuality education: science or politics. *Transitions*, 12(3), p.3.

abstinence-only programs had significant gaps in knowledge of STIs”.<sup>50</sup> In addition, “recall for younger respondents was worse in some areas than others, for example regarding the risks of STIs and unwanted pregnancy,” and “may reflect a level of cognitive immaturity”.<sup>51</sup> Since younger children are not able to successfully recall early sex education courses, it is imperative that they participate in programs all throughout their primary and secondary educations. The only way for youth to effectively utilize the information they receive through sex education in school is by fully retaining what they are taught.

Supporters of abstinence-only sex education argue that education on premarital sex and protection could encourage sexual behavior. However, “research clearly indicates that education about condoms does not lead to increased rates of sexual initiation, lower the age of sexual initiation, or increase sexual activity among young people”.<sup>52</sup> In contrast, abstinence-only programs teach the myth that condoms and other types of sexual protection do not work, and “will not necessarily prevent students from having sexual intercourse but will likely prevent them from using protection”.<sup>53</sup> An absence of information is arguably more harmful to youth than giving them resources to safely decide when and how they will become sexually active.

#### *Why is Comprehensive Sex Education in Public Schools Necessary?*

One of the misconceptions of comprehensive sex education is that it promotes sexual activity at an early age; this is not the case. Rather, it is impossible to predict when youth will become sexually active and, because of this inability, “youth need to know how to avoid the

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<sup>50</sup> Walcott, C.M., Chenneville, T. & Tarquini, S. (2011). p. 829.

<sup>51</sup> Black, C., McGough, P., Bigrigg, A., & Thow, C. (2005). What do clients of a young people's sexual health service recall about their sex education programme at school?. *European Journal Of Contraception & Reproductive Health Care*, 10(4), p.238.

<sup>52</sup> Hauser, D & Howell, M. (2006). The social conservatives war on condoms. Retrieved from: <http://www.advocatesforyouth.org/storage/advfy/documents/pbwaroncondoms.pdf>

<sup>53</sup> Advocates for Youth. (2001). p.14.

potential negative consequences of sexual intercourse”.<sup>54</sup> Furthermore, as mentioned, abstinence-only supporters claim that condoms and other contraceptives are ineffective and their availability to youth promotes early sexual activity. However, it has shown that “consistent and correct condom use can greatly reduce the risk of HIV transmission among sexually active youth”.<sup>55</sup> Moreover, youth who receive consistent sex education throughout school “are about 70 percent more likely to use contraceptive methods” than students who experience less frequent sexual education.<sup>56</sup>

Given that in the United States, “one of every four teenagers who is sexually active will contract an STI” and “one in four college students will contract an STI during his or her time at school,” it is imperative that the importance of proper condom and contraceptive use be taught in public schools.<sup>57</sup> In a 2001 report titled *No Easy Answers*, Dr. Douglas Kirby “concluded that HIV-prevention and sexuality education programs that cover both abstinence and contraception can delay the onset of sexual intercourse, reduce the frequency of sexual intercourse, and reduce the number of sexual partners”.<sup>58</sup> By simply giving students a “greater practical knowledge about sexual health,” the rise of STIs among youth and young adults can be stopped and, if possible, the number of future STIs can be lowered.<sup>59</sup>

### *What Constitutes Effective Comprehensive Sex Education?*

The factor that most effectively characterizes a successful comprehensive sex education is widely debated. In fact, comprehensive sex education programs are more complex than

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<sup>54</sup> Howell, Marcela. (2001). p.3.

<sup>55</sup> Hauser, D & Howell, M. (2006).

<sup>56</sup> Howell, Marcela. (2001). p.3.

<sup>57</sup> Walcott. C.M., Chenneville. T. & Tarquini. S. (2011). p. 828.

<sup>58</sup> Advocates for Youth. (2001). p.17.

<sup>59</sup> Black, C., McGough, P., Bigrigg, A., & Thow, C. (2005). p.235.

abstinence-only programs due to the large number of topics and resources available. According to Kirby, for example, effective programs:

(1) focus narrowly on reducing one or more sexual behaviors that lead to unintended pregnancy or STDs/HIV infection, (2) are based on theoretical approaches that have been successful in influencing other health-related risky behaviors, (3) give a clear message by continually reinforcing a clear stance on particular behaviors, (4) provide basic, accurate information about the risks of unprotected intercourse and methods of avoiding unprotected intercourse, (5) include activities that address social pressures associated with sexual behavior, (6) provide modeling and the practice of communication, negotiation, and refusal skills, (7) incorporate behavioral goals, teaching methods, and material that are appropriate to the age, sexual experience, and culture of the students, (8) last a sufficient length of time to complete important activities adequately, and (9) select teachers or peers who believe in the program they are implementing and then provide training for those individuals.<sup>60</sup>

Even from this relatively short list of basic characteristics and resources for teaching an effective sexual education curriculum, it can be concluded that the standardization of sex education methods in public schools will prove to be a difficult and strenuous process. The cost alone for every public school in the United States to adopt practices similar to these would likely dissuade school boards from even attempting to add such programs. In addition, most health classes and physical education courses could not successfully incorporate these topics without eliminating or overshadowing other educational subjects in the process.

### *Economic Impact of Comprehensive Sex Education*

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<sup>60</sup> Advocates for Youth. (2001). p.17.

In a 2011 study, Chen et. al evaluated the short and long term costs of school-based pregnancy prevention programs through an economic approach.<sup>61</sup> The study not only re-establishes that comprehensive sex education programs increase contraception use but also “[indicates] that the program is cost-efficient and demonstrates its net benefits based on its long-term impact”.<sup>62</sup> In regards to abstinence education, it found that “sexual abstinence helps society avoid the associated public welfare, socioeconomic, and medical/health-care costs of such pregnancies”.<sup>63</sup> While Chen, Yamada, and Walker focused on high-risk neighborhoods, these findings are applicable to all youth and suggest that unsafe health practices can “lead to poor health outcomes, which may include premature birth, intrauterine growth retardation, low-birth-weight babies, prenatal complications, and sexually transmitted diseases”.<sup>64</sup> The short term cost to society is heavily outweighed by the benefits of comprehensive sex education and its overall value to students’ physical and mental health.

## **Variables Limiting Modern Sex Education Programs**

### *Varying Standards from State to State*

The 10<sup>th</sup> Amendment of the U.S. Constitution states that “the powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people”.<sup>65</sup> Specifically, this dictates that any laws over which the federal government has no power are given to the states themselves. As of now, sex education in a

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<sup>61</sup> Chen, C., Yamada, T., and Walker, E. M. (2011). Estimating the cost-effectiveness of a classroom-based abstinence and pregnancy avoidance program targeting preadolescent sexual risk behaviors. *Journal of Children and Poverty*, 17(1), p.87.

<sup>62</sup> *Ibid.*

<sup>63</sup> *Ibid.*

<sup>64</sup> *Ibid.* p.88.

<sup>65</sup> US National Archives and Records Administration. (n.d.).

public school is regulated by the state in which it resides, and most federal legislation related to public sexual education is focused on its funding rather than control. Allowing each state individual regulation creates confusion caused by “vague terminology,” differing standards, and conflicting teaching methods.<sup>66</sup> The guidelines for sex education in public schools range from simple recommendations which “local school boards can accept or ignore” to “legally binding” phrases that are vague and convey multiple meanings.<sup>67</sup>

The most common guideline components across all states are “(a) involvement of parents and community in planning, (b) local autonomy over programs, and (c) public review of program content”.<sup>68</sup> However, only four topics, “anatomy and physiology, human reproduction, venereal disease, and family roles and responsibilities,” are used by a majority of the states.<sup>69</sup> These four topics leave the more controversial topics of “masturbation, contraception, abortion, and homosexuality” unmentioned, and “most states deal with these controversial topics by ignoring them or excluding them from guidelines”.<sup>70</sup> The contradiction of providing sex education courses for youth, but deliberately excluding certain topics, is counterproductive to the purpose of the programs. These controversial topics, though offensive to some portions of the population, still exist and leaving them out of sex education courses can result in negative experiences and outcomes for students as they mature and develop relationships. Finally, sex education in many public schools is taught “occasionally” and is generally considered a nonessential course that is taught as a small portion of physical education or health class.<sup>71</sup> Historically, the type of sex

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<sup>66</sup> Kirby, D & Scales, P. (1981). An analysis of state guidelines for sex education instruction in public schools. *Family Relations*, 30(2), p.230.

<sup>67</sup> *Ibid.* p.231.

<sup>68</sup> *Ibid.*

<sup>69</sup> *Ibid.* p.235.

<sup>70</sup> *Ibid.* p.236

<sup>71</sup> Walcott. C.M., Chenneville. T. & Tarquini. S. (2011). p. 838.

education program provided can “vary substantially depending on the province, teacher, administrator, and school board”.<sup>72</sup> There exists a great deal of variation among the current sex education programs provided throughout the country, creating dissention between school administrators over how to effectively teach youth about sex.

### *Lack of Proper Training for Sex Education Counselors and Educators*

Some opponents of comprehensive sex education in public schools are more concerned not with the content of what is being taught, but rather with the minimal training educators receive to teach such programs. In fact, educator training “may be largely responsible for the (limited) amount of sex education and training received by students”.<sup>73</sup> This is a multi-tiered issue: who is qualified to teach sex education—parents? Health teachers? Trained nurses? Religious groups? Professional psychologists? And even if these programs required nurses and psychologists, what type of medical backgrounds should they have? With very little standards in place, it is difficult to determine what type of instructor is most appropriate to teach sex education to students. It is widely established, however, that a “lack of training should not be a barrier to the development” of sex education among youth.<sup>74</sup>

### **Conclusion**

The argument over whether or not there should be sex education in public schools has lasted over a century and has only just recently been agreed upon by opposing United States liberal and conservative politicians. The new debate focuses on which method should be used:

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<sup>72</sup> Miller, S. A. & Byers, E. S. (2010). p.99.

<sup>73</sup> *Ibid.* p.93.

<sup>74</sup> Arcus, M. (1986). p.350.

comprehensive vs. abstinence-only. While it is clear that comprehensive sex education programs are beneficial and are scientifically proven to decrease unwanted pregnancies and the spread of STIs, one wonders if the religious freedom of abstinence-only supporters is being violated. Are everyone's rights and choices being taken into account?

If the problem is choice, then why are children not being involved in the discussion of what they can and cannot learn? Certainly, younger children do not have the mental maturity to understand the problem—they are entirely ignorant on the subject. But is it acceptable to withhold, or even go as far as to conceal, information from them? Children will eventually grow to adults and be immersed in society—the good, the bad, the sexual and the religious. One question, one of thousands associated with the problem, is at what age do we begin to introduce them to sexuality, a major aspect of human nature? Some would say that children should never be taught anything about sex, and that they will find out eventually, mostly likely with a negative experience or after marriage. Others would argue that the subject should be broached with children as soon as they are born, though the idea of explaining sexual intercourse to a toddler makes many adults balk. This dissention is at the root of the sexual education debate in America, making it difficult to discern a single, most effective method of properly teaching children, at the appropriate age, about the many facets of sexuality.

With the rise of technology in the last few decades, parents and schools are no longer able to keep track of youth at all times. Each day youth engage in unprotected sexual intercourse or are peer-pressured into situations for which they are not prepared. Waiting for legislation to pass or new policies to be created is no longer an option. Standardization among states and schools is necessary to make progress in eradicating the flow of miscommunication. Without it, youth will grow into adults with misconceptions that harm their mental, emotional, and sexual

health; to continue in a partisan stalemate over abstinence-only or comprehensive sexual education is to perpetrate this unhealthy cycle.

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# The Cliff Effect: One Step Forward, Two Steps Back – Policy Design as a Disincentive for Economic Mobility

Derek Thomas<sup>75</sup>

**Abstract:** *The purpose of this report is to illustrate the “cliff effect” —the benefit “cliff” that occurs when even a \$0.50 increase in hourly wages among heads of households leads to the complete termination of a benefit, and a dramatic net loss of resources. The unintended consequences of this design acts as a poverty trap – resulting in a disincentive towards economic mobility, or creating a situation in which the parent or guardian is working harder, but is financially worse off. The report is modeled after NCCP’s “Making Work Pay” reports (Columbia University) —also sponsored by the Annie E. Casey Foundation. This report will be the first of its kind to use the Indiana specific Self-Sufficiency Standard.<sup>76,77</sup> According to the Standard: “Self Sufficiency is a measure used to determine how much income a family of a particular composition in a given place requires to adequately meet their basic needs, such as housing, food, transportation, health insurance, child care and other necessities—without relying on public or private assistance.”*

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<sup>76</sup> The Self Sufficiency Standard is an updated, more accurate reflection of the real income needed to pay for a family’s expenses in today’s economy and makes it possible to determine if families’ incomes are enough to meet basic needs. The online Self-Sufficiency Standard Calculator can quickly calculate the Standard for any county and 70 family types in all 92 counties in Indiana

<sup>77</sup>. Pearce, D. M. (2009, October). *The Self-Sufficiency Standard for Indiana 2009*. Retrieved from [http://www.incap.org/documents/FINAL\\_2009\\_Indiana\\_SSS\\_Report\\_10-26-09.pdf](http://www.incap.org/documents/FINAL_2009_Indiana_SSS_Report_10-26-09.pdf)

## INTRODUCTION

The story in Indiana is no different from that in many states in the U.S, especially those in the Rust Belt – generally defined as Midwestern states affected by industrial decline. With the advent of job losses, beginning in the 1980s and further punctuated by the Great Recession, a growing number of Hoosiers were left without quality jobs and adequate incomes to afford their most basic necessities. These struggles that put Hoosier families in the red are not unique to a small population of the state.

The reality is that poverty continues to rise in Indiana – now affecting more than one-million Hoosiers. In all, a staggering 2.24 million Indianans live at or below 200 percent of the Federal Poverty Guidelines (FPG).<sup>78,79</sup> Contributing to the declining economic health, low wage jobs are on the rise. As of 2011, 71 percent of Hoosiers worked in occupations that pay less than what is required for economic self-sufficiency (200 percent of FPG, or, double the outdated poverty level), 24 percent worked in occupations that pay poverty level wages, and 6 percent of Hoosiers are making minimum wage.<sup>80,81</sup>

To help bring families closer to self-sufficiency by bridging the gap between low wage work and the increasing costs of basic necessities, work supports programs are designed to provide adequate resources for working families and simultaneously encourage progress in the workforce. This report will highlight the impact of work supports for low-income families, illustrate the

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<sup>78</sup> The current poverty measure was established in the 1960s and is now widely acknowledged to be flawed. It was based on research indicating that families spent about one-third of their incomes on food – the official poverty level was set by multiplying food costs by three.” As such, many public programs eligibility guidelines are set well above the FPG. NCCP, Measuring Poverty in the United States: [www.nccp.org/publications/pub\\_876.html](http://www.nccp.org/publications/pub_876.html)

<sup>79</sup> According to the U.S. Department of Health and Human Services, the FPG is equal to \$11,490 for a family of one, \$15,510 for a family of two, \$19,530 for a family of three and \$23,550 for a family of four.

<sup>80</sup> Bureau of Labor Statistics (May, 2011). *Occupational Employment Statistics*. Retrieved from Website: <http://www.bls.gov/oes/current/oes353021.htm>

<sup>81</sup> Indiana has a higher share of occupations that pay poverty level wages and a higher share of minimum wage workers than all neighboring states, including Kentucky.

economic phenomenon known as the cliff effect and offer recommendations to help bring the budgets of Hoosier families back in the black.

## HOW MUCH DOES IT TAKE TO BE SELF-SUFFICIENT IN INDIANA?

While self-sufficiency is generally defined as 200 percent FPG, according to the Self-Sufficiency Standard (which measures self-sufficiency in all 92 counties based on local variances), the average income for one adult, one preschooler and one school age child (across all 92 counties) required to be economically self-sufficient is more than 175 percent of the FPG, or \$16.06 per hour (\$33,408 annually). The range for self-sufficiency is anywhere from 270 percent of FPG in Hamilton County to 144 percent of FPG in Vermillion County.

The hourly wage required for self-sufficiency in Marion County (\$19.95 per hour) is nearly triple the hourly minimum wage of \$7.25 per hour and just under one and a half times that of the median hourly wage in Indiana of \$15.24 in 2012.<sup>82</sup>

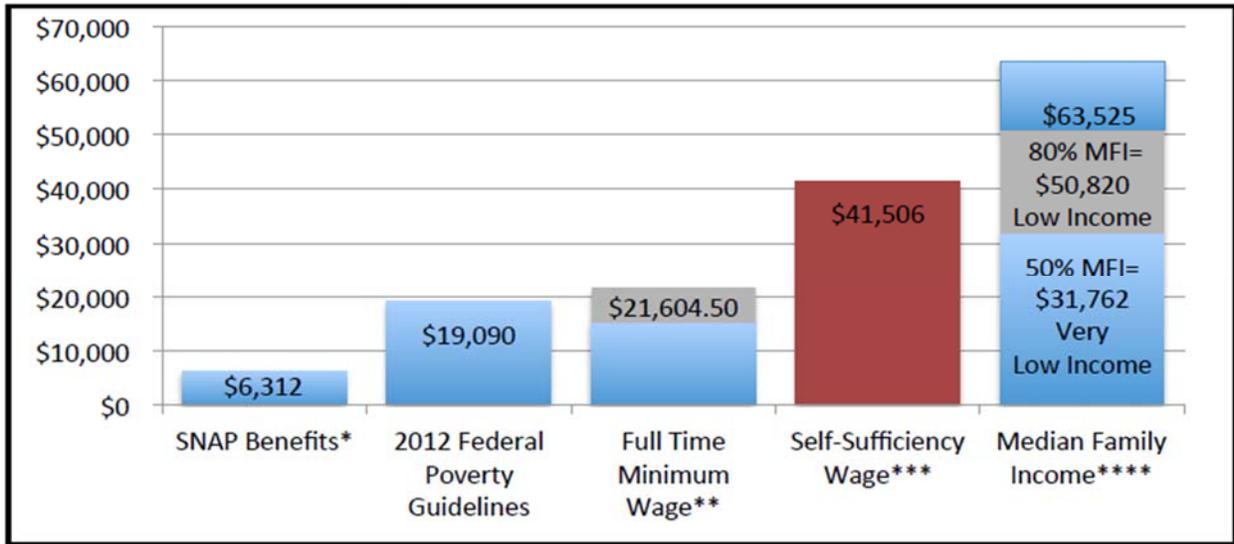
**Figure 1** and **Figure 2** illustrate these specific budget constraints for a family of three in Marion County. Nearly 2.24 million Hoosiers face the same struggles and are not self-sufficient.

**Figure 1:** *Cost for One Adult, One Preschooler, and One School Age Child, Marion County, IN*

<b>The Cost of Living for Families in Marion County</b>	
Housing:	<b>\$8,892</b>
Food:	<b>\$5,977</b>
Childcare:	<b>\$12,864</b>
Healthcare:	<b>\$3,821</b>
Transportation:	<b>\$3,821</b>
Other Necessitates:	<b>\$3,569</b>
Net Taxes (incl. credits):	<b>\$2,562</b>
<b>Total Expenses:</b>	<b>\$41,506</b>
<b>Hourly Wage Needed =</b>	<b>\$19.95</b>

<sup>82</sup> Thomas, D. (2013). Status of Working Families, 2012 Report, (17), Retrieved from: <http://www.incap.org/documents/iwfw/2013/Status%202012%20Final.pdf>

**Figure 2: Self Sufficiency Wage Compared to Other Benchmarks, 2009-2011 One Adult, One Preschooler, and One School age Child, Marion County, IN<sup>83</sup>**



### WHY WORK SUPPORTS?

Given the new economic reality facing families across the U.S. and Indiana, work supports are the counterweight to the gap between the increasing costs of basic necessities and the falling incomes of working families. Work support programs are means-tested public benefits such as earned income tax credits, child care subsidies, health insurance and food stamps – see **Table 1** for a description of various work support programs. Evidence shows that work supports are good fiscal policy because they put money into the hands of consumers. They also encourage work. Most importantly, they have been proven to effectively lift millions of Americans out of poverty

<sup>83</sup>\***Supplemental Nutrition Assistance Program (SNAP) Benefits:** The maximum benefit for a family of 3 is \$6,312--the maximums haven't changed since 2009.

<sup>83</sup>\*\***Full Time Minimum Wage:** 2080 hours for full-time work by federal minimum wage of \$7.25 per hour = \$15,080. After payroll taxes and tax credits (totaling \$6,524.50), the grand total = \$21,604.50.

<sup>83</sup>\*\*\***Self Sufficiency Wage:** This number is based on a combination of expenses from the Institute's 2009 Self-Sufficiency Standard and NCCP's Basic Needs Budget. See appendix for methodology.

<sup>83</sup>\*\*\*\* **Median Family Income:** The U.S. Department of Housing and Urban Development (HUD) uses area median family income as a standard to assess families' needs for housing assistance.

and put them on a path to economic self-sufficiency—nearly cutting poverty in half in 2010.<sup>84,85</sup> At the same time, the 2011 U.S. Census data suggest that, from 2010 to 2011, a large majority of Hoosiers who moved out of the 100 to 200 percent FPG levels fell deeper into poverty—below 100 percent.

**Table 1: Work Support Policies in Indiana**

Work Support Program/ Limits Set at the National or State Level	Benefit	Income Eligibility Limits
Federal Earned Income Tax Credit (EITC)/Federal	Tax refund Up to \$3,094/year for 1 child; up to \$5,112/year for 2 children; up to \$5,751/year for 3 or more children	\$36,052-\$43,998 a year depending on family structure and number of children (income limits higher if married and filing jointly)
State Earned Income Tax Credit /State	Tax refund Set at 95% of the value of the federal EITC	Same as the federal EITC income eligibility as it existed before being amended by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312)
Federal Child Tax Credit/Federal	Tax refund Up to \$1,000/year per child	Value of credit is phased out as adjusted gross income rises over thresholds (\$110,000, married/filing jointly; \$55,000, married/filing separately; \$75,000, all others)
Federal Child and Dependent Tax Credit/Federal	Tax refund Up to 35% of a limited amount of employment-related child care expenses	No income limit; share of expenses covered declines to 20% as income rises
Supplemental Nutrition Assistance Program (food stamps)/ Federal with State Option	Food subsidies (in the form of EBT card) Up to \$526/month for family of 3; up to \$668/month for family of 4	130% FPL before subtracting deductions from income 100% FPL after subtracting deductions from income
Medicaid/State with National Parameters	Subsidized health insurance for parents and children	\$3,456/year for family of 3 \$4,158 for family of 4
Hoosier Healthwise (CHIP)/State	Subsidized health insurance for parents and children	250% FPL
Healthy Indiana Plan (HIP)/State	Subsidized health insurance for childless adults	200% FPL
Child Care Development Fund/State	Child care subsidy	Program entry 127% FPL; program exit 171% FPL
Section 8/Federal	Rental assistance	50% of area median family income (with exceptions)
Low-Income Home Energy Assistance Program (LIHEAP)/Federal	Credit applied to energy bill	150% FPL
Special Supplemental Nutrition Program for Women, Infants and Children (WIC)*/Federal	Food subsidies (and other benefits, including nutrition education and health screenings) for pregnant women, new mothers, infants, and children up to age 5	185% FPL
National School Lunch Program and School Breakfast Program*/ Federal	Food subsidies (meals provided at school)	130% FPL for free meals; 185% FPL for reduced-price meals

<sup>c</sup>See Appendix for eligibility for various government programs

## OFTEN TIMES, WORK ISN'T ENOUGH

The fact that work itself is not enough to be economically self-sufficient does not apply only to those making the paltry federal minimum wage of \$7.25 per hour. As **Table 2** illustrates,

<sup>84</sup> Greenstone, M., & Looney, A. (2012, April 06). *The truth about taxes: Just about everyone pays them*. Retrieved from <http://www.brookings.edu/blogs/jobs/posts/2012/04/06-jobs-greenstone-looney>

<sup>85</sup> Greenstein, R. (2012, April 07). *Testimony: Robert Greenstein before the house budget committee hearing on strengthening the safety net*. Retrieved from <http://www.cbpp.org/cms/index.cfm?fa=view&id=3745>

a single parent earning \$10 per hour while raising one preschool age child and one school age child does not begin to approach economic self-sufficiency without work supports<sup>86</sup>. Without the child care subsidies, in addition to the federal and state tax credits, Supplemental Nutrition Assistance Program (SNAP - formally known as food stamps) and the Public Health Insurance, the single parent would be in the red. In the table below, the expenses included are the most basic of necessities needed to support families. Not included are durable goods (such as furniture or appliances), payments on debt, savings, or asset accumulation, such as a home, an education or retirement. Activities to improve the overall quality of life are also not included.

<b>Table 2: Impact of Work Supports on Hoosier Families<sup>d</sup></b> <small>Single parent with two children ages 3 and 6 (assumes full-time, year-round employment at \$10/ hour), Marion County</small>	<b>Employment Alone</b>	<b>Employment PLUS</b>	<b>Employment PLUS</b>
		*Tax credits *State tax credits	*Tax credits *State tax credits *SNAP *Public Health Insurance *Childcare Subsidy
<b>Annual Resources (cash and near-cash)</b>			
Earnings	\$20,800	\$20,800	\$20,800
Federal EITC	0	4,247	4,247
Federal Child Tax Credit	0	2,000	2,000
State EITC	0	382	382
SNAP	0	0	3,942
<b>Total Resources</b>	<b>\$20,800</b>	<b>\$27,429</b>	<b>\$31,371</b>
<b>Annual Expenses</b>			
Housing	8,892	8,892	8,892
Food	5,977	5,977	5,977
Childcare	12,864	12,864	1,498
Healthcare	3,821	3,821	1,634
Transportation	3,821	3,821	3,821
Other Necessitates	3,569	3,569	3,569
Payroll Taxes	1,175	1,175	1,175
Income Taxes (excluding credits)	120	120	120
<b>Total Expenses</b>	<b>\$40,239</b>	<b>\$40,239</b>	<b>\$26,686</b>
<b>Net Resources (resources – expenses)</b>	<b>\$-19,439</b>	<b>\$-12,810</b>	<b>\$4,685</b>

<sup>86</sup> Child care subsidies are reflected in the reduction of child care expenses and utilities are reflected in housing expenses.

## **UNINTENDED CONSEQUENCES: THE “CLIFF EFFECT”**

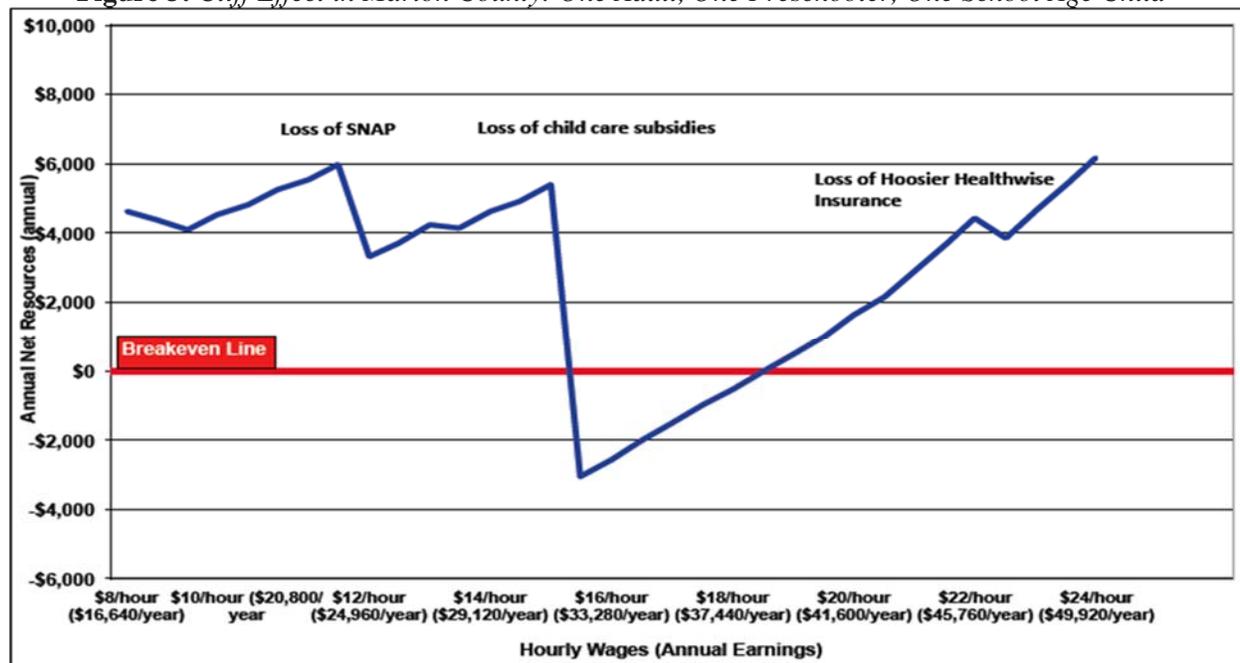
Most often the single greatest barrier to self-sufficiency for low-income individuals is the “cliff effect.” Eligibility for work support programs SNAP, and Child Care Development Fund (CCDF) are based on income. Generally, eligibility for these programs requires that a family’s income falls below 200% of the Federal Poverty Guidelines, with benefits phasing out as earnings increase. The unintended consequences of this design mean that an increase in a family’s income can significantly set back a family’s goal towards economic self-sufficiency.

In **Figure 3**, the “cliff effect” is illustrated. The red breakeven line is the point at which income is equal to expenses related to the costs of basic necessities. At a wage of \$8 per hour, a single parent with one preschool age child and one school age child, with the support of federal and state tax credits, SNAP, public health insurance, and a child care subsidy is self-sufficient. The first significant loss in net resources occurs when the participant loses SNAP benefits between the wages of \$11.50 and \$12.00 per hour—a total annual net resource loss of \$2,651—nearly 11 percent of annual income.

Most dramatic, though, is the “cliff” that occurs as child care subsidies are lost between the wages of \$15.00 and \$15.50 per hour—a total net resource loss of \$8,454 ,or a painful 25 percent loss in annual resources as a result of a \$0.50 raise. Finally, between the wages of \$22.00 per hour and \$22.50 per hour, when Hoosier Healthwise is lost, the total annual net resource loss is \$574. While the latter is much smaller, punishment for hard work at levels near self-sufficiency is significant to Indiana’s families. It is, therefore, no surprise that low-income workers would consider the economic impact of this “cliff” for their families before accepting a raise, effectively

acting as a barrier to employment. The lack of an “EITC cliff” in the chart below is evidence (and an example) of a program well designed to phase out gradually.

**Figure 3: Cliff Effect in Marion County: One Adult, One Preschooler, One School Age Child<sup>87</sup>**



**Source:** National Center for Children in Poverty's Family Resource Simulator, Indiana 2011 [www.nccp.org/tools/frs](http://www.nccp.org/tools/frs)  
 When eligible, the family receives the following work supports: federal and state tax credits, SNAP/food stamps, public health insurance, and a child care subsidy. Budget numbers are from NCCP Basic Needs Budget Calculator and the Self Sufficiency Standard for Indiana.

## CONCLUSION: REVERSING COURSE

The Institute’s position is that work is a key component to achieving economic self-sufficiency, and that Indiana’s state government, in collaboration with private and non-profit sectors, has an important role to play in improving the conditions and opportunities of low-wage workers and their families. In order for Indiana to prepare for a more prosperous future, policymakers must choose to invest in Indiana’s workers and their families by strengthening state policies that lead to opportunities for Hoosiers to achieve and maintain economic self-sufficiency.

<sup>87</sup> See the Institute's video for a graphic illustration of the “cliff effect” [www.incap.org/cliffeffectreport.html](http://www.incap.org/cliffeffectreport.html)

As we slowly recover from the latest recession, and the past few decades of wage stagnation, we should move away from these policy choices that continue to harm working families in Indiana. These families work hard, play by the rules, and yet, the aforementioned public policy designs act as a deterrent to economic mobility. The role of state government in Indiana should not be to punish working families by cutting or eliminating programs entirely, but to design public policy that rewards hard work and promotes economic mobility by providing adequate resources for working families and simultaneously encouraging progress in the workforce.

In the following section, the Institute has provided policy recommendations to give Hoosier families a fair shake at achieving and maintaining economic self-sufficiency.

## **POLICY RECOMMENDATIONS: ENCOURAGE ECONOMIC MOBILITY**

As a whole, the Institute recommends the following for each of these programs listed below:

- *Smooth Out Benefit Phase-Outs:* A gradual phase-out, as opposed to the “cliff,” provides the most basic incentive to work hard; a raise that increases net resources.
- *Implement Broad Based Categorical Eligibility (BBCE):* BBCE is a state option that allows the alignment of SNAP eligibility with other low-income programs. Indiana adopted BBCE during the 2011 legislative session, but has yet to implement the rule.<sup>88</sup>
- *Change Monthly Income Eligibility Limits:* Use average of six months or one year to more accurately reflect fluctuating incomes due to irregular hours or seasonal employment.
- *Raise Income Tax Threshold:* Indiana is among only a handful of states that tax residents below the Federal Poverty Level - \$19,530 for a family of three.

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<sup>88</sup> United States Department of Agriculture. *Broad Based Categorical Eligibility (July, 2013)*. Retrieved from website: <http://www.fns.usda.gov/snap/rules/Memo/BBCE.pdf>

## **THE SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP)**

SNAP is a core component of America's nutrition assistance safety net that increases purchasing power (acting as a supplement) to provide sufficient food for families. From 2001 through 2008, the national number of SNAP participants grew unprecedentedly. The percentage increases in SNAP participation from 2007 through 2011 also grew at an unrivaled rate. In both instances, SNAP grew according to need, by design. Indiana's increase between 2007 and 2011 (51%) was not proportionate to the average national increase in participation (69%). This mismatch is also by design. Given its effectiveness in fighting poverty, the Institute recommends the following to strengthen one of the most successful anti-poverty initiatives.

- **Raise the SNAP Gross Income Limit:** Increase from 130% of FPG to 200% of FPG. This increase would reduce the first major SNAP "cliff" and;
- **Remove Asset Test of \$2000:** These asset limits discourage families from establishing and accumulating sufficient assets which could not only be used to transition them off of public assistance but also lift the family out of asset poverty. Indiana should eliminate or increase asset limits to where they would not affect most recipients. Indiana has extremely low (\$2,000) asset limits for SNAP and Temporary Assistance to Needy Families (TANF) - which are punitive and can discourage savings and asset accumulation. Indiana should also remove asset limit of \$3,250 households with an elderly or disabled member.<sup>89</sup>

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<sup>89</sup> New America Foundation, (2013). *Modernizing Asset Limits, Indiana Fact Sheet*. Retrieved from website: <http://assetlimits.newamerica.net/states/indiana>

## **CHILD CARE AND DEVELOPMENT FUND (CCDF)**

The CCDF is a federal program specifically devoted to child care services and quality, but the program eligibility limits are set at the state level. Because the CCDF benefit “cliff” is the single greatest barrier to self-sufficiency, and child care costs in Indiana are soaring (10th highest in U.S., or 46 percent of State Median Income for a single parent), the state must ensure not only that work pays for low-income parents, but that high quality early child care services are provided.<sup>90</sup> Unfortunately, poverty rates among children in Indiana continue to increase—from 21.7 percent in 2010 to 23 percent in 2011.<sup>91</sup> In addition to phasing out benefits and adopting BBCE, the Institute recommends the following:

- **Invest More Money Into the CCDF Program:** Indiana is currently using all of its CCDF allocation, resulting in a wait-list;
- **Raise the CCDF Gross Income Limit:** Increase from 171% of FPG to 250% of FPG. This increase would reduce the greatest benefit cliff, encourage employment and support economic mobility and self-sufficiency and;
- **Increase Co-Payments:** If Indiana would increase co-payments for families at the higher end of the income eligibility range, the gained revenue could go towards serving more in the CCDF program.

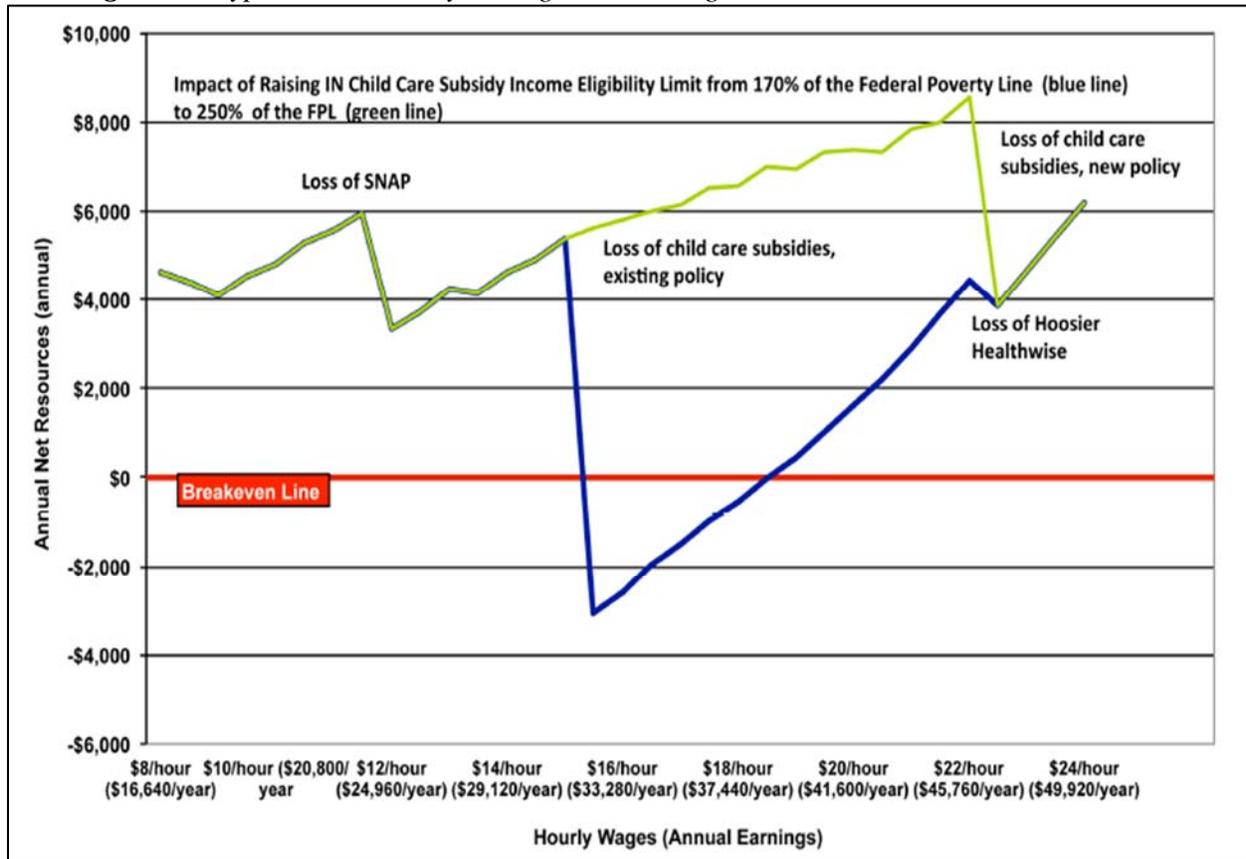
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<sup>90</sup> Child Care Aware of America. (2012). *Parents and the high cost of child care*. Retrieved from website: [http://www.naccrra.org/sites/default/files/default\\_site\\_pages/2012/cost\\_report\\_2012\\_final\\_081012\\_0.pdf](http://www.naccrra.org/sites/default/files/default_site_pages/2012/cost_report_2012_final_081012_0.pdf)

<sup>91</sup> Kids Count Data Center: A Project of the Annie E. Casey Foundation. *Children In Poverty*. Retrieved from Website:

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**Figure 4: Hypothetical Policy Change, Increasing CCDF Income Limit to 250% FPG**



**Source:** National Center for Children in Poverty's Family Resource Simulator, Indiana 2011 [www.nccp.org/tools/frs](http://www.nccp.org/tools/frs). When eligible, the family receives the following work supports: federal and state tax credits, SNAP/food stamps, public health insurance, and a child care subsidy. Budget numbers are from NCCP Basic Needs Budget Calculator and the Self Sufficiency Standard for Indiana.

### Earned Income Tax Credit (EITC)

The EITC is a federal tax credit for low-to-moderate-income working individuals and families. The credit reduces the tax burden placed on workers by offsetting payroll and income taxes. The credit is also refundable—meaning that if the credit exceeds the amount of taxes owed, the difference is given back to the worker. Thus, earned income is put into the pockets of working individuals and families. Indeed, it has been proven to encourage work, especially among single mothers to reduce poverty. New research also shows that “adding \$3,000 a year in EITC income to children in working-poor families before age 6 increases working hours by 135 hours a year

between the ages of 25 and 37, and increases their annual earnings by 17% over the same period.”<sup>92</sup> However, it is estimated that approximately 25 percent of taxpayers who are eligible do not claim the credit.<sup>93</sup> In addition to phasing out benefits and adopting BBCE, the Institute recommends the following:

•**Raise the state Earned Income Tax Credit from 9% to 25% of the federal EITC:** Indiana is to be commended for adopting a state EITC, but at 9% of the federal benefit the state benefit is now modest compared to most other state EITC’s.<sup>94</sup>

**Figure 4.1** illustrates the result of the increased credit. Before the credit expires at a wage of \$20.00 per hour, the average increase in net resources is \$417 during the life of the credit. Additionally at a wage of \$8.00 per hour, the increase in annual net resources is \$818. At a wage of \$12.00 per hour, the increase in annual net resources is \$539.00. At \$14.00 per hour, the increase in annual net resources is \$400. While appearing insignificant, these increases can make or break a family that is working towards economic self-sufficiency, many of whom are already struggling in a low wage economy.

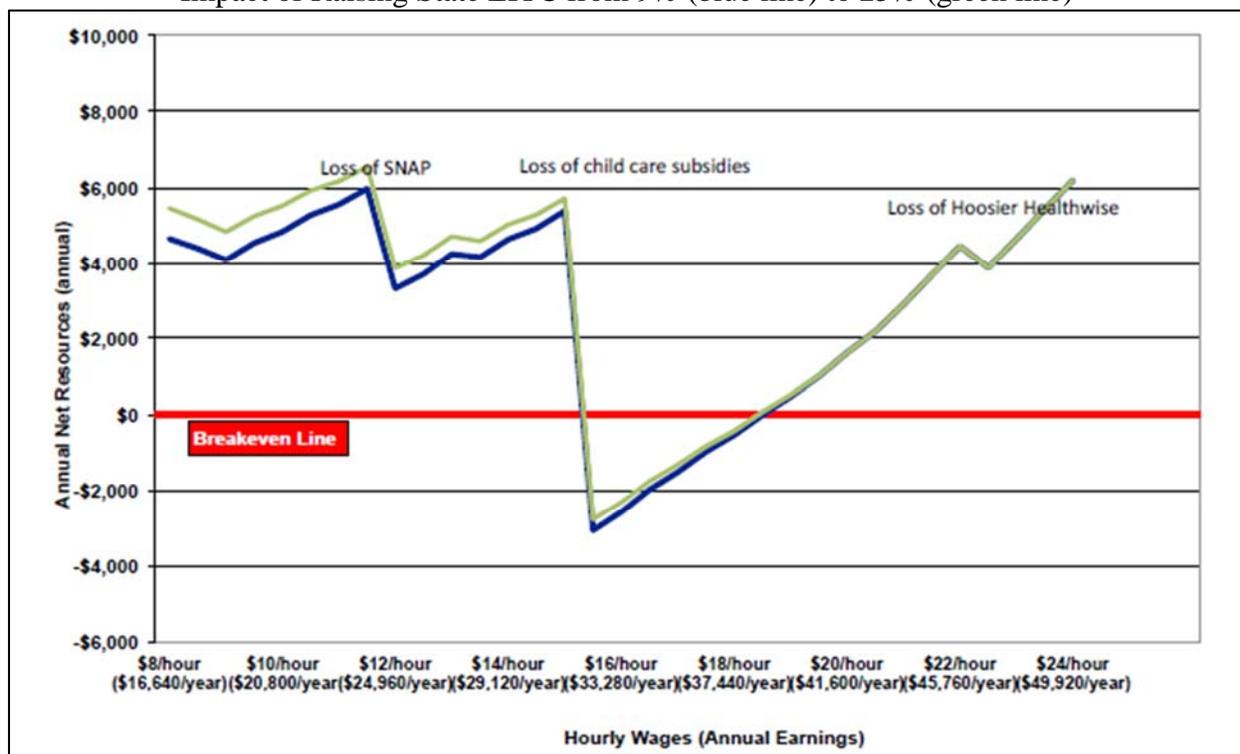
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<sup>92</sup> **Oloff, Phil. Singham, Ashali. Center on Budget and Policy Priorities. The Impact of State Income Taxes on Low-Income Families in 2008. Retrieved from Website:**<http://www.cbpp.org/cms/index.cfm?fa=view&id=2976>

<sup>93</sup> Finzel, Rochelle and Torres Flores, Qiana (January, 2013) National Conference of State Legislators. Tax Credits for Working Families: Earned Income Tax Credit. Retrieved from Website: <http://www.ncsl.org/issues-research/labor/earned-income-tax-credits-for-working-families.aspx>

<sup>94</sup> Ibid.

**Figure 4.1:** Hypothetical Policy Change, Increasing State EITC to 25%  
Impact of Raising State EITC from 9% (blue line) to 25% (green line)



**Source:** National Center for Children in Poverty's Family Resource Simulator, Indiana 2011 [www.nccp.org/tools/frs](http://www.nccp.org/tools/frs). When eligible, the family receives the following work supports: federal and state tax credits, SNAP/food stamps, public health insurance, and a child care subsidy. Budget numbers are from NCCP Basic Needs Budget Calculator and the Self Sufficiency Standard for Indiana.

## METHODOLOGY

This report features results from NCCP's Family Resource Simulator and Basic Needs Budget Calculator, which are web-based policy analysis tools designed for policymakers, administrators, advocates, and researchers. The Family Resource Simulator calculates the impact of federal and state work supports on the budgets of low-to moderate-income families. The Simulator concretely illustrates the effectiveness of current policies in encouraging and supporting work. NCCP also uses this tool to model potential policy reform. Family Resource Simulators are available or under development for 26 states. The Basic Needs Budget Calculator is a related tool

that shows how much a family needs to make ends meet without the help of work supports. Users select the number of parents and ages of children and may adapt the estimates developed by NCCP or replace them with their own estimates. The Budget Calculator estimates the family's tax liability and overall budget according to these entries. For this report, the Indiana Institute for Working Families asked NCCP to incorporate expense estimates from the Self Sufficiency Standard for Indiana (Center for Women's Welfare, University of Washington) into the Budget Calculator. Self Sufficiency Standard values are used for the two major family expenses: housing and child care.

**Rent and utilities:** The cost of rent and utilities is based on the Fair Market Rent determined by the U.S. Department of Housing & Urban Development. This value varies by county and number of children; Basic Needs Budgets assume a 2-bedroom unit for families with 1 or 2 children and a 3-bedroom unit for families with 3 children.

**Food:** The cost of food is based on the Low-Cost Food Plan developed by the U.S. Department of Agriculture, which varies according to family size and the ages of family members.

**Child care:** The cost of child care is based on data from Indiana's child care market rate survey, using 75th percentile rates for licensed family care facilities and child care centers. Values vary by the child's age and the county. For two-parent families, cost also varies depending on the second parent's employment status. When both parents work full-time, Basic Needs Budgets assume that the family needs full-time child care. When the second parent works part-time, Basic Needs Budgets assume that the family needs part-time child care. When the second parent is not employed, Basic Needs Budgets assume that the family does not need child care.

**Health insurance premiums:** The cost of health insurance premiums is based on the average employee contribution for employer-based family coverage in Indiana's private sector, according

to the Medical Expenditure Panel Survey (MEPS) conducted by the federal Agency for Healthcare Research and Quality.

**Out-of-pocket medical expenses:** The cost of out-of-pocket medical expenses is based on data from the Medical Expenditure Panel Survey (MEPS) conducted by the federal Agency for Healthcare Research and Quality. These estimates vary by the number of parents and children covered.

**Transportation:** For all Indiana counties, the cost of transportation reflects the assumption that parents commute to work by car and is estimated using the Economic Policy Institute's Basic Family Budget methodology. This methodology relies on data from the U.S. Department of Transportation's National Household Transportation Survey and cost-per-mile calculated by the Internal Revenue Service. The cost of transportation varies by county. For two-parent families, cost also varies depending on the second parent's employment status.

**Other necessities:** The cost of other necessities is estimated using the Economic Policy Institute's Basic Family Budget methodology, which relies on data from the Consumer Expenditure Survey. It equals 27 percent of the sum of the family's (unsubsidized) housing and food costs.

**Debt:** Basic Needs Budgets do not include any debt payment; however, users can choose to add this expense.

**Payroll taxes:** The cost of payroll taxes is calculated following federal tax regulations.

**Income taxes:** The cost of income taxes is calculated following federal, state and local tax regulations. Income tax calculations take into account the Federal Earned Income Tax Credit, the Federal Child Tax Credit, and the Federal Child and Dependent Care Tax Credit. The Indiana Earned Income Tax Credit is also included.

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## U.S. Department of Energy: Green Energy Efficiency Spruces Budget Practices

Sarah Bloom<sup>95</sup>

**Abstract:** *The U.S. Department of Energy (DOE) oversees the United States' energy-related affairs. The department prepares an annual budget by evaluating its fiscal position: the amount of federal funds it received each of the last three to five years, its expenditures' relationship to these appropriations, and the factors causing its financial situation. Then, since the recent sequestration reduced departments' federal appropriations, the DOE must critically prioritize its most effective programs and amend or terminate others. This paper's format follows this budgeting process and analyzes four policies' costs and benefits. The findings suggest the department recommend that Congress retain or reinstate enhanced loan guarantee programs, strengthen and reestablish the advanced energy manufacturing tax credit, maintain and fortify the renewable energy production tax credit, and eliminate the three to eight costliest fossil fuel tax expenditures for companies whose revenues surpass a defined threshold.*

The U.S. Department of Energy (DOE) must deliberate approaches that overcome its financial constraints. The department can improve its fiscal position and accomplish its primary

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objectives—which include benefitting the U.S.’s inhabitants and achieving President Barack Obama’s energy production and environmental targets—by strengthening and reinstating the most effective programs while eliminating the weakest. Thus, the author recommends the DOE propose that Congress maintain or reinstate improved loan guarantee programs, amend and reintroduce the manufacturing tax credit (MTC), renew and reinforce the production tax credit (PTC), and discontinue at least the three—if not the eight—largest fossil fuel tax expenditures for corporations whose incomes exceed a specified maximum.

### **Purpose and Fiscal Place in Government**

The DOE seeks “to ensure America’s security and prosperity by addressing its energy, environmental and nuclear challenges” with scientific and technological solutions.<sup>96</sup> Its responsibilities range from managing and creating domestic energy and entrepreneurial careers<sup>97</sup> to encompassing an international organization—the Clean Energy Ministerial—dedicated to developing new technologies that limit global greenhouse gas emissions and reverse the effects of global climate change.<sup>98</sup> Obama continually stresses the paramount importance of his energy plan, whose objectives include the U.S. developing renewable energy resources and technologies, fostering high efficiency vehicles, obtaining energy independence,<sup>99</sup> and acquiring clean air.<sup>100</sup> The DOE’s responsibilities essentially embody these goals; thus, it crucially abets the president’s energy vision.

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<sup>96</sup> U.S. Department of Energy [DOE], n.d.-b, Mission section

<sup>97</sup> DOE, n.d.-a, Made in America section

<sup>98</sup> The White House, 2011, p. 16; 2013a, International Leadership section

<sup>99</sup> The White House, 2011, p. 4

<sup>100</sup> The White House, 2011, p. 7

Congress established the DOE’s Advanced Research Projects Agency-Energy (ARPA-E)—which employs “scientists, engineers, and entrepreneurs” who conduct creative, “transformational energy research”<sup>101</sup>—within “the America COMPETES Act” of 2007.<sup>102</sup> Obama envisioned the U.S. leading global energy technological innovation since his first term began; thus, “in 2009, the Administration” distributed the ARPA-E’s first federal funding<sup>103</sup>—a stimulus-funded \$400 million appropriation—that permitted it to devise its initial budget.<sup>104</sup> By March 22, 2013, the organization had assisted with 285 research projects.<sup>105</sup>

The DOE creates jobs by researching and developing new technologies while manufacturing old ones. Environmental Entrepreneurs’ (E2) third quarter summary announced that the department created 10,819 total positions (see Table 1).<sup>106</sup> While Congressional inaction and “uncertainty in Washington ... contribut[ed] to” the third quarter’s declining renewable energy market,<sup>107</sup> during the first and second quarters of 2012, clean energy projects created 46,000<sup>108</sup> and 37,409 jobs,<sup>109</sup> respectively. The DOE not only abets America’s energy independence in an environmentally-friendly manner; it also creates jobs and boosts the economy.

Table 1: DOE Jobs Created in Third Quarter 2012

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<sup>101</sup> The White House, 2013b, "Staying on"

<sup>102</sup> ARPA-E, n.d.-b, para. 4

<sup>103</sup> The White House, 2013b, "Staying on"

<sup>104</sup> ARPA-E, n.d.-a, para. 1; The White House, 2011, p. 38

<sup>105</sup> DOE, 2013, para. 5

<sup>106</sup> Environmental Entrepreneurs [E2], 2012c, p. 7

<sup>107</sup> E2, 2012c, p. 1

<sup>108</sup> E2, 2012a, p. 1

<sup>109</sup> E2, 2012b, p. 1

<b>Project Type</b>	<b>Positions Created</b>
In Operation*	1,686
In Progress**	4,661
Announced***	4,472

**Notes:** \*These projects either were functional or had only operative manufacturing facilities. \*\*These projects had either begun construction or been initiated. \*\*\*These projects were “in earlier [developmental] stages.”<sup>110</sup>

**Sources:** E2, 2012c, p. 7

### **Fiscal Position: Budget Allocation, Expenditures, & Concerns**

Obama plans to continue growing America’s clean-energy market while simultaneously allocating to the DOE only 2.2 percent of fiscal year (FY) 2013 and 2.5 percent of FY 2014 through 2017 discretionary spending.<sup>111</sup> Between 2009 and 2011, the department’s appropriated budget averaged 2.9 percent of these expenditures.<sup>112</sup> Although this percentage seems negligible, since 2007, the DOE annually has received 90 percent or more of its budget request from the government (see Table 2).<sup>113</sup>

Table 2: DOE Budget Requests, Appropriations, and Percent of Request Received, 2007-2013

<b>Year</b>	<b>Budget Request (\$)</b>	<b>Appropriations (\$)</b>	<b>Percentage of Request Received (%)</b>
2007	23,556,755	23,754,228	100.84
2008	24,259,251	24,032,338	99.06
2009	25,014,956	33,856,453	135.34
2010	26,393,982	26,425,673	100.12
2011	28,404,359	25,692,833	90.45
2012	29,546,730	26,299,547	89.01
2013	27,155,027	-	-

**Notes:** “In fiscal year 2009, [the] DOE received about \$36.7 billion in Recovery Act appropriations, with varying obligation deadlines. During the yearly appropriations process, [the]

<sup>110</sup> E2, 2012c, p. 5

<sup>111</sup> Office of Management and Budget [OMB], 2013b

<sup>112</sup> OMB, 2013b

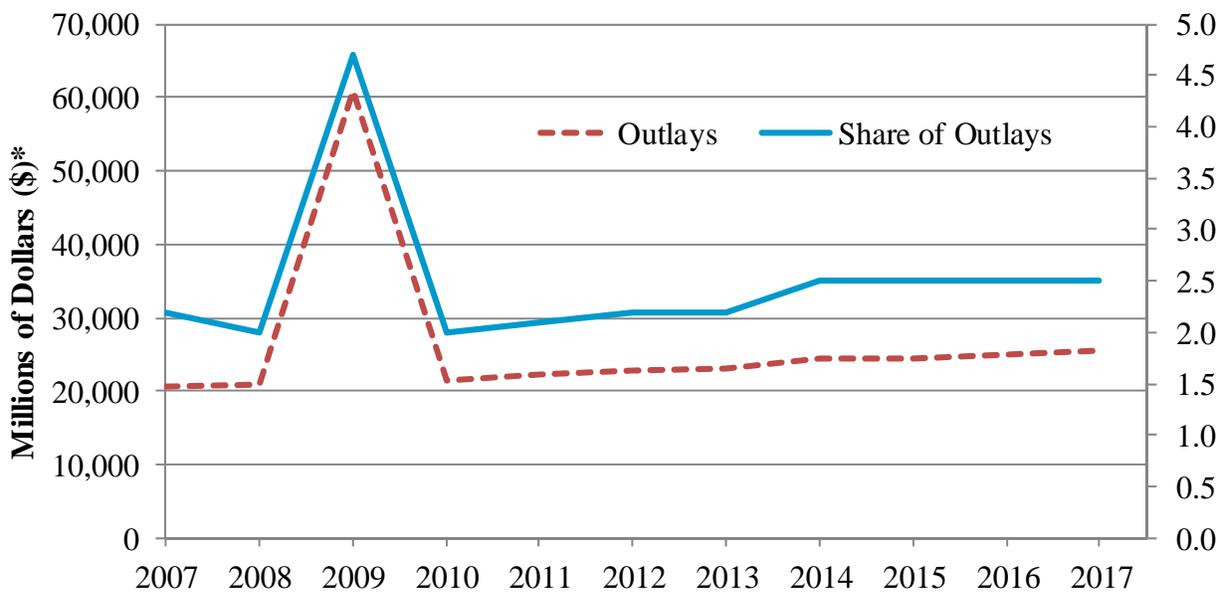
<sup>113</sup> *Budget and Spending Concerns*, 2012, p. 21

DOE generally receives no-year funding. No-year funding refers to appropriations that do not restrict the time by which funds must be obligated.<sup>114</sup> The appropriations “column does not include Recovery Act appropriations.”<sup>115</sup> Budget requests and appropriations are in thousands of dollars.

**Source:** DOE, as cited in *Budget and Spending Concerns*, 2012, p. 21

Despite the recession, a slowly recovering economy, and the fraction of federal funds distributed to the DOE, the department’s outlays proliferated between 2007 and 2012, increasing by approximately 11 percent.<sup>116</sup> Overall, the Office of Management and Budget (OMB) anticipates these expenditures to continue increasing through 2017, albeit at a more gradual rate (see Figure 1).<sup>117</sup>

Figure 1: DOE Discretionary Budget Authority, 2007-2017



**Notes:** Years 2013 through 2017 are estimated. The right scale’s unit is percent (%). \*In constant 2011 dollars  
**Sources:** OMB, 2013a; Deflator: OMB, 2013c; Percent (%): OMB, 2013b

The DOE allocates funds while considering the relative importance of three main areas: energy programs, which primarily manage and improve current and future energy resources;

<sup>114</sup> *Budget and Spending Concerns*, 2012, p. 21

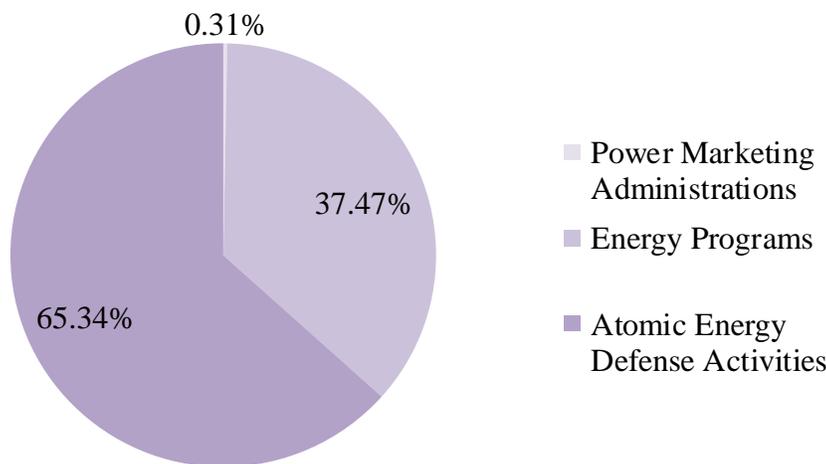
<sup>115</sup> *Budget and Spending Concerns*, 2012, p. 21

<sup>116</sup> OMB, 2013a

<sup>117</sup> OMB, 2013a, 2013b, 2013c

power marketing administrations, which promote hydropower from government dams and projects;<sup>118</sup> and atomic energy defense activities, which contain nuclear, ecological, and other security programs. The DOE's budget prioritizes the last area (see Figure 2).<sup>119</sup>

Figure 2: DOE Budget Request, 2013



Source: Office of Chief Financial Officer, 2012, p. 17

Recently, Congress has reduced many departments' budgets, forcing them to adapt or cease some policies. The DOE's diverse responsibilities affect numerous programs, creating a vulnerability to these financial shortages and subsequent programmatic adjustments.<sup>120</sup> Policies fulfilling stakeholders' ideals and needs may deteriorate or terminate. Although rising gas prices—which increase the importance of Obama's reduced oil subsidies<sup>121</sup>—and mounting demand for renewable resources<sup>122</sup> create opportunities for the DOE to research and develop more efficient and affordable clean-energy technologies, delivering these superior products

<sup>118</sup> Office of Chief Financial Officer, 2012, p. 70

<sup>119</sup> Office of Chief Financial Officer, 2012, p. 17

<sup>120</sup> Leiter & Litke, 2013, "Sequestration Impacts"

<sup>121</sup> Cooper, Weisman, & Parker, 2012, para. 4

<sup>122</sup> Jenkins et al., 2012, p. 4; Trembath & Jenkins, 2012a, "Beyond Boom," para. 3

proves challenging, slow, and sometimes costly. In 2011, Solyndra, a solar panel manufacturer, defaulted on its \$535 million loan from the DOE.<sup>123</sup> Many Republicans pounced on the announcement, decrying the DOE's capitalism under the Obama Administration.<sup>124</sup>

In its FY 2013 budget request, the DOE curbed expenses, demonstrating to stakeholders its fiscal responsibility.<sup>125</sup> DOE Secretary Steven Chu conveyed the department's strategic plan: use less funding than in previous years to make a greater impact by eliminating unsuccessful programs and investing in effective ones.<sup>126</sup>

## **Fiscal Policies**

The DOE's proposed and employed energy policies include loan guarantee programs, the MTC, the PTC, and fossil fuel tax expenditures. Although most of these policies have budgetary costs and benefits, only some of them currently exist.

### **DOE Loan Guarantee Programs**

Within "Title XVII of the Energy Policy Act of 2005" (EPACT), Congress created the loan guarantee program in order to fund "innovative technologies" for "projects ... [that] 'avoid, reduce or sequester air pollutants or greenhouse gases; employ new or significantly improved technologies and provide a reasonable prospect of repayment.'"<sup>127</sup> This program meaningfully contributes to achieving America's renewable energy goals by catalyzing the domestic trade "of innovative and advanced clean ... technologies."<sup>128</sup> The DOE Loan Programs Office (LPO)

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<sup>123</sup> Stiles, 2012, para. 2

<sup>124</sup> Stiles, 2012, para. 2

<sup>125</sup> Chu, 2012, p. 4

<sup>126</sup> Chu, 2012, p. 5

<sup>127</sup> Hanna, 2010, p. 1

<sup>128</sup> U.S. Department of Energy Loan Programs Office [LPO], n.d.-c, "The Financing Source," para. 1

allocates both Innovative Technology and Advanced Technology Vehicle Manufacturing (ATVM) loan guarantees.<sup>129</sup> Section 1703 of the LPO's initiating statute established the former, which funds programs developing "innovative clean energy technologies that" contain too many "high technology risks" to "obtain conventional private financing."<sup>130</sup> After candidate companies pay the DOE's subsidy fees, it may finance up to 80 percent of their projects' expenses.<sup>131</sup> Created within "Section 136 of the Energy Independence and Security Act of 2007," ATVM loans finance the development of advanced technology vehicles and accompanying parts that meet high efficiency criteria.<sup>132</sup>

Four years after the initial two LPO programs began, Section 1705 revised the EPACT and permitted the DOE to distribute a third—the Section 1705 clean energy loan guarantee—until September 30, 2011.<sup>133</sup> Incorporated within "the American Recovery and Reinvestment Act of 2009" (ARRA), the amendment permitted the DOE to sanction loans for domestic "projects that commenced construction no later than September 30, 2011 and involve[d] certain renewable energy systems, electric power transmission systems, and leading edge biofuels."<sup>134</sup> Companies borrowing 1705 loans did not pay the department a subsidy fee.<sup>135</sup>

In December 2009, Congress amended an EPACT provision that shielded taxpayers should projects fail, instead repaying "lesser creditors" before or concurrently with the

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<sup>129</sup> *Budget and Spending Concerns*, 2012, pp. 5-10; Jenkins et al., 2012, p. 54; *The Obama Administration's*, 2012, p. 31; Office of Chief Financial Officer, 2012, pp. 12-13; LPO, n.d.-b

<sup>130</sup> *The Obama Administration's*, 2012, p. 31

<sup>131</sup> *The Obama Administration's*, 2012, p. 31

<sup>132</sup> *Alternative Fueled Vehicles*, 2011, p. 16; *The Obama Administration's*, 2012, p. 31; LPO, n.d.-a, "Energy Independence"

<sup>133</sup> *The Obama Administration's*, 2012, p. 31

<sup>134</sup> *The Obama Administration's*, 2012, p. 31

<sup>135</sup> *The Obama Administration's*, 2012, p. 31

government, “even when [the] DOE [was] the majority debt holder.”<sup>136</sup> Neither Congress nor Obama considered reinitiating the 1705 program,<sup>137</sup> although the LPO continues issuing 1703 and ATVM loans.<sup>138</sup>

### Findings & Analysis

Of the policies highlighted, the LPO’s clean energy loans contain the most concerns.<sup>139</sup> In September 2009, the LPO issued its first guaranteed loan—Solyndra’s \$535 million 1705 loan<sup>140</sup> “to build a new factory”<sup>141</sup>—and within a year, it approved 1705 loans for fifteen additional projects totaling \$16 billion.<sup>142</sup> “On August 31, 2011,” Solyndra closed,<sup>143</sup> leaving 1,100 unemployed and without the statutory severance or “60 days’ notice”.<sup>144</sup> Five days later, the company filed for bankruptcy.<sup>145</sup> In “a \$3.5 million settlement”<sup>146</sup> reached October 22, 2012, the court devised Solyndra’s bankruptcy plan,<sup>147</sup> awarding two private companies with tax reductions and millions of dollars in revenue<sup>148</sup> without recompensing the company’s primary creditors or the government.<sup>149</sup>

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<sup>136</sup> Hanna, 2010, p. 3

<sup>137</sup> McArdle, 2012, para. 1

<sup>138</sup> LPO, n.d.-b

<sup>139</sup> For more information, see Hanna, 2010 and *The Obama Administration's*, 2012.

<sup>140</sup> Hanna, 2010, p. 1; *The Obama Administration's*, 2012, p. 30

<sup>141</sup> Baker, 2011, para. 2

<sup>142</sup> Hanna, 2010, p. 1

<sup>143</sup> Baker, 2011, para. 11; Kaften, 2012, Case History section, para. 1

<sup>144</sup> Baker, 2011, para. 5

<sup>145</sup> Baker, 2011, para. 1

<sup>146</sup> Kaften, 2012, Case History section, para. 1

<sup>147</sup> Kaften, 2012, para. 1

<sup>148</sup> Kaften, 2012, Lodging an Objection section, para. 1

<sup>149</sup> Kaften, 2012, Winners and Losers section

Within days, “a government source” provided new Treasury and OMB documents cautioning the DOE to consult the Department of Justice before amending Solyndra’s loan.<sup>150</sup> After restructuring, it “repa[id] company investors before taxpayers if the company defaulted.”<sup>151</sup> DOE spokesman Damien LaVera claimed the department complied but that ultimately, “career lawyers in the loan program” decided the alterations’ legality.<sup>152</sup> Now, taxpayers repay the debts of companies with failed projects.<sup>153</sup> Moreover, the DOE improperly assessed all 1705 loan applications.<sup>154</sup>

Additionally, the government approved and appropriated to the DOE “the net present value of the anticipated costs of defaults”<sup>155</sup>—“\$2.47 billion in credit subsidy costs.”<sup>156</sup> Whereas this fund replaced borrowers’ subsidy fees, remunerated “the two current project defaults,” and may reimburse the “total defaults of ... [the] eight ... remaining higher-risk projects and [still] have” residual credit,<sup>157</sup> the LPO’s other programs have used applicants’ fees to pay for themselves and will continue doing so in order to reimburse future overhead.<sup>158</sup> Since the government guarantees the LPO’s 1703, ATVM, and 1705 loans, this fee acts as one of the few factors incentivizing corporations to ensure their projects’ successes.<sup>159</sup> Companies receiving 1705 loans paid no DOE subsidy fee and consequently will lose less money from failed projects

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<sup>150</sup> Stephens, Leonnig, & Mufson, 2011, para. 4

<sup>151</sup> Stephens et al., 2011, para. 2

<sup>152</sup> Stephens et al., 2011, para. 8

<sup>153</sup> *The Obama Administration's*, 2012, p. 36

<sup>154</sup> *The Obama Administration's*, 2012, p. 37

<sup>155</sup> Hanna, 2010, p. 2

<sup>156</sup> Williams, 2012, "The Program Planned"

<sup>157</sup> Williams, 2012, "The Program Planned"

<sup>158</sup> Williams, 2012, "Ending DOE's"

<sup>159</sup> *The Obama Administration's*, 2012, p. 31

than will those obtaining 1703 or ATVM loans.<sup>160</sup> Thus, the 1705's feeless policy attracted audacious companies.<sup>161</sup>

Nonetheless, corporations with successful projects appreciate the 1705's aid and benefit the DOE's fiscal position by repaying their loans plus interest.<sup>162</sup> On August 5, 2011, the DOE distributed a 1705 loan to one such company—Agua Caliente.<sup>163</sup> Although the project remained incomplete in early September 2012, the factory's operators increased its wattage “to 250 megawatts ... [and thus created] the largest operating photovoltaic power plant in the world.”<sup>164</sup> The NRG Solar LLC-sponsored Agua Caliente project credits the 1705 program with its success<sup>165</sup> and the 400 jobs it created.<sup>166</sup> However, NRG Solar LLC and other corporations comprise NRG Energy, Inc., “a Fortune 500 ... company”<sup>167</sup> which received most 1705 loans, totaling \$3.8 billion—23.7 percent—of clean energy loan funds.<sup>168</sup> Furthermore, “nearly 90 percent of the [1705] loans guaranteed by the ... government since 2009 ... subsidize[d]” large, vastly-resourced corporations’ “lower-risk power plants.”<sup>169</sup> Finally, as the LPO's programs are not mutually exclusive, “many ... companies that ... benefitted from ... the 1705 ... [loans] also received additional grants under the” ARRA.<sup>170</sup>

Although loans extended to startup renewable energy corporations without significant financial backing accomplish their intended purpose, those granted to companies of wealthy

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<sup>160</sup> *The Obama Administration's*, 2012, p. 31

<sup>161</sup> *The Obama Administration's*, 2012, p. 37

<sup>162</sup> *The Obama Administration's*, 2012, p. 36

<sup>163</sup> DOE, 2011, para. 1

<sup>164</sup> Casey, 2012, para. 2

<sup>165</sup> Casey, 2012, para. 1

<sup>166</sup> Casey, 2012, "No More Solyndras," para. 5

<sup>167</sup> NRG Energy, n.d., NRG Companies section

<sup>168</sup> *The Obama Administration's*, 2012, p. 34

<sup>169</sup> *The Obama Administration's*, 2012, pp. 34-35

<sup>170</sup> *The Obama Administration's*, 2012, p. 35

businesses are less efficient. The \$16 billion earmarked for the clean energy loan program funded 26 projects and created an estimated 2,378 permanent jobs.<sup>171</sup> With an overall \$6,731,034 taxpayer exposure per job, the 1705 program's expenses hampered the effectiveness with which it created positions.<sup>172</sup>

Notwithstanding its faults, the structure of the LPO's current programs protects the DOE and taxpayers against monetary loss.<sup>173</sup> Additionally, the DOE required officials of power generation projects, which received 87 percent of 1705 loan funds, to find consumers for the power produced.<sup>174</sup> These projects' "committed revenue stream ... g[ave] lenders confidence that project backers ... [could] pay ... debt" and thus that they took fewer risks than did "the remaining 13 percent of the portfolio value," for which the department necessitated no such requirement.<sup>175</sup>

The LPO's programs—despite their flaws, their inefficiencies, and their controversies— affect neither the DOE's nor the government's budget.<sup>176</sup> They can only benefit the department's fiscal position. Additionally, 1705 loans allowed companies to undertake domestic-energy-portfolio-diversifying ventures and offered new technology-manufacturing clean-energy corporations opportunities to establish themselves. Furthermore, 1705 loans, especially those lent to small and mid-sized companies, incentivized American technological innovation without the many risks of completely funding projects.<sup>177</sup> Thus, Congress should modify and reinstate the 1705 while maintaining the 1703 and ATVM programs. The DOE must

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<sup>171</sup> *The Obama Administration's*, 2012, p. 33

<sup>172</sup> *The Obama Administration's*, 2012, p. 33

<sup>173</sup> *The Obama Administration's*, 2012, p. 31; Williams, 2012

<sup>174</sup> Williams, 2012, "Lower-Risk Energy"

<sup>175</sup> Williams, 2012, "Lower-Risk Energy"

<sup>176</sup> Williams, 2012, "Ending DOE's"

<sup>177</sup> *The Obama Administration's*, 2012, p. 37

ensure that the latter two policies do not suffer issues similar to those of the clean energy loan program. If these or other weaknesses occur, Congress should amend the policies.

### **Section 48C Advanced Energy Manufacturing Tax Credit**

The “Internal Revenue Code (IRC)” Section 48C advanced energy manufacturing tax credit (MTC) encouraged manufacturers to develop clean, innovative energy sources.<sup>178</sup> Created within the ARRA,<sup>179</sup> the MTC and the renewable energy production tax credit (PTC) jointly offered “a 30 percent investment credit to manufacturers ... invest[ing] in capital equipment [in order] to make components for [domestic] clean energy projects.”<sup>180</sup>

The ARRA mandated candidate companies to complete their projects “on or after February 17, 2009”, to commission their projects “before February 17, 2013”<sup>181</sup>, and to apply for the credit before October 16, 2009.<sup>182</sup> By January 2010,<sup>183</sup> the DOE had accepted 183 projects<sup>184</sup>—which totaled the MTC’s \$2.3 billion—demonstrating “commercial viability, domestic job creation, technological innovation, speed to project completion, ... potential for reducing air pollution and greenhouse gas emissions,”<sup>185</sup> and cost-effectiveness.<sup>186</sup> Congress then allowed the program to expire without financing 235 eligible projects tallying \$5.8 billion in

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<sup>178</sup> *Impact of Tax Policies*, 2012, p. 6; DOE, 2010, para. 2-3

<sup>179</sup> DOE, 2010, para. 2

<sup>180</sup> DOE, 2012, para. 6

<sup>181</sup> DOE, 2010, Timing of Projects section

<sup>182</sup> DOE, 2010, Applicant Pool section

<sup>183</sup> *Impact of Tax Policies*, 2012, p. 49

<sup>184</sup> DOE, 2010, para. 2

<sup>185</sup> DOE, 2010, para. 4

<sup>186</sup> *Impact of Tax Policies*, 2012, p. 49

48C tax credits.<sup>187</sup> The money demanded outnumbered the funds available by more than three-to-one.<sup>188</sup>

In 2012, Congress denied Obama's request to extend the MTC, but on February 7, 2013, "the Departments of Energy and Treasury announced ... that they will [competitively] offer" the 183 projects' residual \$150 million in MTCs.<sup>189</sup> This year, the president requested an additional \$5 billion in MTCs<sup>190</sup> while continually urging Congress to renew the 48C credit.<sup>191</sup>

### Findings & Analysis

The MTC's flaws include relatively specific eligibility standards. Since the 48C is "a non-refundable credit", primarily companies that pay income tax qualify for it.<sup>192</sup> Additionally, projects of startup and other corporations requiring more than 30 percent in 48Cs find this credit inadequate.

Despite the MTC's imperfections, it benefited recipient projects and the economy. One approved project, Itron Inc.'s "OpenWay CENTRON smart meter,"<sup>193</sup> spent \$5.2 million in 48Cs<sup>194</sup> in order "to install advanced automation equipment ... including ... [innovative] robotics that work directly on the smart meter assembly line."<sup>195</sup> This equipment "increased the facility's production capacity by 20 percent"<sup>196</sup> and augmented smart meter production sufficiently "to

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<sup>187</sup> *Impact of Tax Policies*, 2012, p. 49

<sup>188</sup> DOE, 2010, para. 5

<sup>189</sup> Leiter & Litke, 2013, "\$150 Million"

<sup>190</sup> *Impact of Tax Policies*, 2012, p. 51

<sup>191</sup> Office of the Press Secretary, 2013, "Ensuring U.S. Leadership"

<sup>192</sup> Gillon Tax Advisors, n.d., "New Advanced Energy," para. 5

<sup>193</sup> Craft, 2010, "Smart Meters Change," para. 1

<sup>194</sup> Craft, 2010, para. 2

<sup>195</sup> Craft, 2010, "Grant Money Funds," para. 1

<sup>196</sup> Craft, 2010, "Grant Money Funds," para. 1

reduce annual electricity use [*sic*] by approximately 1.7 million megawatt-hours”<sup>197</sup>—“enough electricity to power 52,000 homes for one year.”<sup>198</sup>

Economically, this MTC-funded technology created 420 jobs,<sup>199</sup> boosting the company from its position as Oconee County’s<sup>200</sup> third to its top employer.<sup>201</sup> “Lowell Rust, Itron’s director of product marketing,” said that the smart meter almost instantaneously monitors and displays users’ energy consumption and cost, allowing people to reduce their energy bills<sup>202</sup> and greenhouse gas emissions. Once Itron firmly establishes this product on the U.S. market, the company plans to produce domestically and export it worldwide,<sup>203</sup> thus generating domestic revenue.

The 48C does not affect the DOE’s budget and therefore cannot affect its fiscal position. Economically, the MTC creates jobs, inspires American technological innovation, and may catalyze international exports and trade while increasing the nation’s revenue. Environmentally, it reduces dependence on fossil fuels by stimulating a clean energy market. Thus, the findings suggest that Congress reinstate the 48C tax credit.

### **Section 45 Renewable Energy Production Tax Credit**

With “IRC Section 45” production tax credits (PTC),<sup>204</sup> companies producing alternative energy (see Table 3) can claim, for their first ten operational years, “a 2.2-cent per kilowatt-

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<sup>197</sup> Craft, 2010, para. 3

<sup>198</sup> Craft, 2010, "Smart Meters Change," para. 7

<sup>199</sup> Craft, 2010, para. 2

<sup>200</sup> Itron maintains its smart meter production facility in Oconee County, South Carolina.

<sup>201</sup> Craft, 2010, para. 1-3

<sup>202</sup> Craft, 2010, "Smart Meters Change," para. 3-5

<sup>203</sup> Craft, 2010, "American Made"

<sup>204</sup> Novogradac & Company LLP, 2010, p. 9

hour” tax benefit.<sup>205</sup> Congress ratified this credit within “the Energy Policy Act of 1992”<sup>206</sup> and modified it most notably within “the American Jobs Creation Act” of 2004 (AJCA), the EPACT, and the ARRA.<sup>207</sup> The PTC incentivizes companies to develop renewable energy resources,<sup>208</sup> “help[s] drive the [wind] industry’s growth,” and creates and sustains jobs.<sup>209</sup> With the wind PTC, the U.S. created “nearly 20,000 direct” and more than “30,000 manufacturing jobs.”<sup>210</sup>

Table 3: Sample Alternative Energies Companies Eligible for PTCs

Type of Resource	Type of Alternative Energy
Renewable*	Landfill Gas, Municipal Solid Waste ^
Perpetual**	Wind, Biomass, Geothermal ^^, and Incremental Hydro, Wave, and Tidal Energy ^^^

**Notes:** \*One must use these resources sustainably—that is, in such a way that they will replenish and remain for future generations. Otherwise, they will diminish and disappear.<sup>211</sup> \*\*One can never deplete these resources.<sup>212</sup> The author classifies them as renewable.

**Sources:** ^*Impact of Tax Policies*, 2012, p. 46; ^^*Impact of Tax Policies*, 2012, p. 46; Iowa Energy Center, 2013; ^^^UCS, 2013, para. 4

The industry has been growing in magnitude. In 2011, it “remained one of the world’s largest and fastest growing wind markets,” and it manufactured almost 70 percent of the equipment installed on wind farms.<sup>213</sup> Wind turbines increased energy production by 27 percent from 2011 to 2012.<sup>214</sup> Thus, the PTC abets Obama’s goals of expanding the domestic clean energy market and decreasing the country’s reliance on nonrenewable energy.<sup>215</sup> Within “the American Taxpayer Relief Act of 2012”<sup>216</sup> passed “January 2, 2013, Congress temporarily

<sup>205</sup> Union of Concerned Scientists [UCS], 2013, para. 2

<sup>206</sup> UCS, 2013, “The PTC,” para. 2

<sup>207</sup> Novogradac & Company LLP, 2010, pp. 10-11

<sup>208</sup> UCS, 2013, para. 1

<sup>209</sup> DOE, 2012, para. 6

<sup>210</sup> Office of the Press Secretary, 2012, para. 2

<sup>211</sup> StopWaste, n.d., p. 1

<sup>212</sup> StopWaste, n.d., p. 1

<sup>213</sup> DOE, 2012, para. 1

<sup>214</sup> Office of the Press Secretary, 2012, para. 3

<sup>215</sup> The White House, 2011, p. 4

<sup>216</sup> Independent Sector, 2013, The Issue section

extended the [wind] PTC.”<sup>217</sup> PTCs for other eligible technologies will conclude December 31, 2013 unless Congress renews them.<sup>218</sup> Without Section 45 credits, the wind industry will lose much of its recent progress.<sup>219</sup>

### *Findings & Analysis*

Congress balked as the PTC helped to establish a flourishing renewable energy market. Thrice—in 1999, 2001, and 2003—it terminated and, within a 12-month period, extended the wind PTC, creating an uncertain wind industry and undermining this market’s long-term stability.<sup>220</sup> Installed wind capacity decreased “between 73 and 93 percent” the year following each expiry<sup>221</sup> while it and cumulative wind power capacity increased with each consecutive-year extension.<sup>222</sup>

Despite impediments and complications, the PTC creates jobs, generates revenue, invigorates renewable energy industries, and diminishes dependence on fossil fuels. Furthermore, the government earmarks PTCs; they cannot affect the DOE’s fiscal position. Consequently, the findings suggest Congress continue renewing PTCs for entitled technologies.

### *Fossil Fuel Tax Expenditures*

The DOE’s nonrenewable-energy policies include fossil fuel tax expenditures, three of which—the domestic manufacturing deduction, the intangible drilling cost deduction (IDC), and the percentage depletion allowance—heavily influence the DOE’s financial position. Congress

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<sup>217</sup> UCS, 2013, "Congress Extends PTC," para. 1

<sup>218</sup> *Impact of Tax Policies*, 2012, p. 46

<sup>219</sup> Office of the Press Secretary, 2012, "The President's Plan," para. 5; DOE, 2012, para. 6

<sup>220</sup> U.S. Energy Information Administration, 2012, Figure

<sup>221</sup> UCS, 2013, "The PTC," para. 2

<sup>222</sup> U.S. Energy Information Administration, 2012, Figure

has not fulfilled Obama's desire to eliminate these and other arguably unnecessary<sup>223</sup> nonrenewable-energy policies; however, the Senate came within nine votes of passing to the House a bill limiting fossil fuel tax expenditures.<sup>224</sup>

Initiated within the AJCA, the IRC Section 199 domestic manufacturing deduction intends to expand and retain American manufacturing jobs.<sup>225</sup> With this policy, a company's domestic manufacturing activities determine its tax base and the magnitude of its payroll establishes its tax rate.<sup>226</sup> This tax expenditure reduces labor's effective cost "by allowing a percent [*sic*] deduction of net income"—"beginning at three percent in 2005" and increasing to a "nine percent [maximum] in 2010"—until a company's "payroll limitation."<sup>227</sup> Oil and gas companies have qualified for this program since Congress's 2004 IRC amendment, which limits these corporations' tax rates to six percent.<sup>228</sup>

Created in 1913,<sup>229</sup> IRC Section 57<sup>230</sup> "intangible drilling costs ... include" non-drilling expenditures "that have no salvage value, but" that vitally aid drilling exploratory and developing productive wells.<sup>231</sup> Since 1986, companies have deducted 70 percent of their IDCs from taxes over "a 60-month period."<sup>232</sup> Improved technology has achieved this policy's purpose of lowering the costs of oil and gas exploration.<sup>233</sup>

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<sup>223</sup> These tax expenditures' necessity has become a controversial matter.

<sup>224</sup> Center for Effective Government, 2012, para. 8; Hassett & Viard, 2012, "Early Efforts," para. 9

<sup>225</sup> Pirog, 2011, p. 5

<sup>226</sup> Pirog, 2011, p. 5

<sup>227</sup> Pirog, 2011, p. 5

<sup>228</sup> Center for Effective Government, 2012, para. 4; Pirog, 2011, p. 5

<sup>229</sup> Center for Effective Government, 2012, para. 5; Pirog, 2011, p. 3

<sup>230</sup> "26 USC," 2012

<sup>231</sup> Pirog, 2011, p. 3

<sup>232</sup> Pirog, 2011, p. 3

<sup>233</sup> Jenkins et al., 2012, p. 34; Pirog, 2011, p. 3

Introduced in 1926,<sup>234</sup> the IRC Section 613 percentage depletion allowance<sup>235</sup> treats companies' oil and gas deposits as manufacturers' capital equipment; therefore, a certain percentage of each company's gross income—currently 15 percent—evades taxes.<sup>236</sup> A 1975 Congressional amendment halted Section 613s for the largest oil companies and reduced the 27.5 percent deducted for other sizeable ones.<sup>237</sup> This program restricts eligibility to independent, domestic producers' "first one thousand barrels per day per [productive] well ... and ... 65 percent of ... [each company's] net income."<sup>238</sup>

### Findings & Analysis

Of the policies analyzed in this paper, only those pertaining to fossil fuels affect the government's fiscal position. The domestic manufacturing deduction, the IDC, and the percentage depletion allowance will likely cost \$41,909 billion over ten years (see Table 4).<sup>239</sup> Despite representing only 37.5 percent of the eight pricey tax expenditures, they comprise approximately 96.1 percent of these programs' total cost.<sup>240</sup>

Table 4: FY 2012 Oil/Gas Industry Tax Proposal Revenue Estimates (in millions of dollars)

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<sup>234</sup> Pirog, 2011, p. 4

<sup>235</sup> Internal Revenue Service, 2007, p. 11

<sup>236</sup> Center for Effective Government, 2012, para. 6; Pirog, 2011, p. 4

<sup>237</sup> Center for Effective Government, 2012, para. 6; Pirog, 2011, p. 4

<sup>238</sup> Pirog, 2011, p. 5

<sup>239</sup> Center for Effective Government, 2012, para. 3; Pirog, 2011, p. 2

<sup>240</sup> Pirog, 2011, p. 2

<b>Proposed Change</b>	<b>2012</b>	<b>2012-2016</b>	<b>2012-2021</b>
Repeal enhanced oil recovery credit	0	0	0
Repeal credit for oil and gas from marginal wells	0	0	0
Repeal expensing of intangible drilling costs	1,875	8,883	12,447
Repeal deduction for tertiary injectants	6	46	92
Repeal passive loss exception for working interests in oil properties	23	117	203
Repeal percentage depletion for oil and natural gas wells	607	4,977	11,202
Repeal the domestic manufacturing deduction for oil and natural gas companies	902	7,704	18,260
Increase geological and geophysical amortization periods*	59	1,140	1,408
<b>Totals</b>	<b>3,472</b>	<b>22,867</b>	<b>43,612</b>

**Notes:** “A zero implies no revenue effect under current and forecasted conditions in oil markets.”<sup>241</sup> \*This suggestion would have “increase[d] [the] geological and geophysical amortization period for independent producers to seven years.”<sup>242</sup>

**Sources:** OMB, 2011, p. 52, as cited in Pirog, 2011, p. 2

The eight programs neither “incentiv[ize] ... increased [fossil fuel] production” nor “reduce [consumers’] prices.”<sup>243</sup> For wealthy corporations, these policies have become largely ineffective, cost taxpayers significant sums of money, and damage the government’s fiscal position. Thus, the author recommends restricting these programs only to companies—which require them in order to offset some costs—below a defined, yearly, net-revenue threshold.

## **Conclusion**

Recently, 1705 loans, MTCs, PTCs, and other policies have sparked innovation and expanded the renewable market, considerably reducing clean energy prices despite fossil fuels’ history of primarily powering the U.S. creating an entrenched, cultural tradition that stymies its growth.<sup>244</sup> Nevertheless, since new technologies granting access to previously unattainable

<sup>241</sup> Pirog, 2011, p. 2

<sup>242</sup> OMB, 2011, p. 52

<sup>243</sup> Pirog, 2011, p. 1

<sup>244</sup> Jenkins et al., 2012, pp. 34-35

nonrenewable resources likewise moderated fossil fuel prices, many legislators feel less inclined to advocate for policies reducing renewable energy prices.<sup>245</sup> Absent Congressional action, Jenkins et al. estimated a 50 percent decline and a 75 percent plunge in “federal clean tech[nology] spending. ... from 2011 to 2012” and from 2009 to 2014, respectively.<sup>246</sup> Currently, most citizens and companies can afford renewable energy resources only with subsidies or other federal supplemental policies while fossil fuels remain comparatively inexpensive.<sup>247</sup>

In order to reverse this trend, Trembath and Jenkins assert that legislators “should reform clean energy subsidies [and other policies] to reward innovation and ... [abet] develop[ing] a robust industry that can thrive without” federal support.<sup>248</sup> These amended programs should “provide sufficient certainty for investment decisions, ... set expectations that subsidy levels will decline over time,” advance “a diverse energy portfolio,” recompense “innovators who deliver better prices or performance,” and “maximize the impact of taxpayer resources by limiting transaction costs and ensuring clean tech[nology] can efficiently access affordable private capital.”<sup>249</sup>

Additionally, the government should continue funding innovative, cost-reducing, job-creating clean energy research and manufacturing projects until renewable and nonrenewable technologies can compete.<sup>250</sup> The renewable energy market will thrive and clean resources will produce energy independence domestically while “fuel exports to energy-hungry global markets”

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<sup>245</sup> Jenkins et al., 2012, pp. 34-35

<sup>246</sup> Jenkins et al., 2012, p. 14; Trembath & Jenkins, 2012a, para. 6-7

<sup>247</sup> Trembath & Jenkins, 2012b, p. 12

<sup>248</sup> Trembath & Jenkins, 2012a, para. 11

<sup>249</sup> Trembath & Jenkins, 2012a, para. 13

<sup>250</sup> Jenkins et al., 2012, p. 7; Trembath & Jenkins, 2012a, "Beyond Boom," para. 22-23

generate revenue if Congress and “industry leaders ... make innovation their guiding principle.”<sup>251, 252</sup>

Although some of its policies function more effectively than do others, the DOE and its programs protect the environment, regulate fossil fuels, and produce a thriving, domestic clean-energy market. While the DOE maintains robust past and present fiscal positions, its future financial situation remains uncertain. In order to prevent the renewable energy incentives from expiring and potentially causing the DOE to lose a tremendous investment in—and revenue from—clean technologies, the author recommends that Congress modify and reinstate the 1705 loan, reinvigorate the MTC, extend the PTC, and eliminate unnecessary fossil fuel tax expenditures. Furthermore, Congress should maintain innovative, renewable-energy policies by amending them until renewable and fossil fuel technologies can compete. These acts should ensure the DOE’s effective budgeting and secure fiscal position into the future.

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<sup>251</sup> Trembath & Jenkins, 2012a, para. 18

<sup>252</sup> For more information, see Jenkins et al., 2012; Trembath & Jenkins, 2012a; and Trembath & Jenkins, 2012b.

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# The National Flood Insurance Program: Successes and Challenges of Federal Flood Mitigation Policy

Ben Sperl<sup>253</sup>

**Abstract:** *The National Flood Insurance Program (NFIP) is the guiding force behind much of the nation's flood mitigation activities. Set forth from the realization that the federal government cannot carry the entire financial burden of alleviating flood losses, the NFIP has attempted to balance flood relief expenditures with an income that is produced by the collection of flood insurance premiums. In this regard, a balance has been successfully achieved for most of the NFIP's history. However, the program has recently lost this balance owing in large part to a few catastrophic flood events taking place in coastal regions, namely Hurricane Katrina, but most recently Hurricane Sandy. Although the NFIP remains a powerful tool for encouraging mitigation, the debt that has been incurred over the past decade raises serious questions regarding its sustainability. The aim of this research paper is to provide a general overview of how the NFIP operates under the administration of the Federal Emergency Management Agency (FEMA) while discussing its successes and highlighting some of the major obstacles that threaten the sustainability of the program.*

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## HISTORY

Developing nearby water has innumerable benefits for society. It is no coincidence that so many communities throughout the world have been established along rivers and coastlines. Such benefits do not come without risk though as coexisting with the environment also entails safeguarding from its hazards. Hence, throughout history and at present, humans have sought structural engineering solutions to protect themselves from natural hazards. In the United States, the Army Corps of Engineers (USACE) has epitomized structural mitigation since the passage of the Flood Control Act of 1936, which enabled them to control hydrologic systems through structural means such as dams and levees.<sup>254</sup> But in the 1960's, the U.S. government acknowledged that these structures alone were not enough.<sup>255</sup> Flood losses were not going down despite the impressive engineering of the USACE. Generally speaking, this was the result of society's unrestricted encroachment into floodplains and the federal government's obligation to provide flood relief.

To address the issue of rising flood costs, and in the absence of a private flood insurance market (private insurers are discouraged by the reality that floods can generate a lot of claims in a short period of time), the federal government created the NFIP under the National Flood Insurance Act of 1968.<sup>256</sup> Its purpose was not to accumulate a surplus of capital as would be expected of a private insurer, but rather to generate just enough income to cover its own operational costs while alleviating flood losses without the direct usage of tax dollars. In

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<sup>254</sup> "Flood Insurance and Hurricane Katrina." *CPCU eJournal*. 59. no. 9 (2006): 1-21. <http://www.cpcusociety.org> (accessed September 15, 2012).

<sup>255</sup> "Flood Insurance and Hurricane Katrina." *CPCU eJournal*. 59. no. 9 (2006): 1-21. <http://www.cpcusociety.org> (accessed September 15, 2012).

<sup>256</sup> "Flood Insurance and Hurricane Katrina." *CPCU eJournal*. 59. no. 9 (2006): 1-21. <http://www.cpcusociety.org> (accessed September 15, 2012).

addition, certain provisions of the NFIP make it more than just a repository for flood relief funding. It is also a tool for nonstructural mitigation, a much needed complement to structural engineering solutions. The subsequent section discusses how nonstructural mitigation is promoted through the NFIP.

## PARTICIPATION

Communities whose members desire the option of federal flood insurance for their homes and businesses can participate in the NFIP if they agree to abide by the regulations set forth under Section 60.3 of Title 44 in the Code of Federal Regulations.<sup>257</sup> In this sense, the program is not being forcibly imposed on communities, but it incentivizes responsible stewardship of floodplains and pursuit of flood mitigation measures. Such measures include, but are not limited to: adoption of flood insurance rate maps (FIRMs) provided by FEMA unless more accurate or detailed studies can be furnished by the community, construction permits for proposed developments in flood-prone areas, mandatory flood proofing (e.g. anchored foundations, raising of lowest level to height above the 100-year flood elevation) of those developments, and prohibited development in areas where alteration of the environment will cause the base flood elevation (i.e. 100-year flood) to increase by a foot or more.<sup>258</sup>

In addition to the required mitigation measures, FEMA also provides suggestions for responsible community planning. These considerations are not mandatory, but strongly encouraged. For example, it is recommended that communities refrain from building public facilities in floodplains unless absolutely necessary.<sup>259</sup> Another suggestion is the purchase of

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<sup>257</sup> "Criteria for Land Management and Use." *Code of Federal Regulations*. Title 44, sec. 60 (1979). <http://www.ecfr.gov> (accessed October 15, 2012).

<sup>258</sup> "Criteria for Land Management and Use." *Code of Federal Regulations*. Title 44, sec. 60 (1979). <http://www.ecfr.gov> (accessed October 15, 2012).

<sup>259</sup> "Criteria for Land Management and Use." *Code of Federal Regulations*. Title 44, sec. 60 (1979). <http://www.ecfr.gov> (accessed October 15, 2012).

flood-prone land via public funds for the purpose of creating recreational green-space as opposed to allowing development. This is a particularly effective mitigation strategy as it preserves the much needed ecosystem services of riparian habitat while avoiding flood-induced property damages, not to mention the benefits of public green-space. Wherever possible, land acquisition of floodplains is an overall positive community investment.

Suggestions such as these have been embraced by many communities participating in the NFIP, while some communities only abide by the minimum requirements. How actively a community mitigates depends on their local circumstances, but most often it is the result of how recent a flood event lingers in memory. What is constant though, is the heightened awareness of flood hazard that communities experience as members of the NFIP. Awareness of flood hazard has a large spatial aspect to it. As such, flood hazard mapping is a staple component of the NFIP and will now be discussed.

## MAPPING

Flood insurance rates are baseless without the geographic delineation of flood hazard. That is, mapping zones according to their probability of inundation provides NFIP administrators with knowledge necessary for assigning premiums that are not arbitrary. The detail with which flood hazard zones are mapped has much to do with the availability of resources. A guiding principle in the field of emergency management is that preparedness and mitigation activities should be risk-based — commit resources where they are needed most. In the case of flood mapping, the most detailed studies are needed where the most is at stake in terms of people and

their property. In contrast, areas where the consequences of inundation are less usually receive analysis involving more approximate methods.

Communities are permitted to delineate flood hazard zones by their own means (i.e. contracting of a private engineering firm or government agency such as the U.S. Geological Survey or USACE) so long as they submit to FEMA thorough documentation of the methods and data used during analysis.<sup>260</sup> However, it is often beyond the means of communities to finance their own studies. In such cases, FEMA funds a formal process of FIRM production known as a Flood Insurance Study (FIS), but is not actively involved in the actual hydrologic and hydraulic analyses.<sup>261</sup> Rather, it is most often the case that another federal agency such as the USACE or the State agency responsible for NFIP management receives project funding to accomplish the objective of furnishing reliable FIRMs for the community under study. Community members are not excluded from the process though. The initial phase of a FIS is to hold a Consultation Coordinated Officer's (CCO) meeting where all relevant actors are represented — community members, the study contractor, State agency responsible for NFIP management, and FEMA personnel.<sup>262</sup> During CCO meetings community members have the opportunity to express which areas they are most concerned about or where they would like to have the most accurate flood elevation data.<sup>263</sup> As mentioned previously, high-risk areas demand more detailed analysis.

The distinction between a detailed and approximate study lies in the quality and availability of data being used as input for hydraulic computer models that predict flood elevations, whether geared towards coastal or riverine scenarios. In a riverine hydraulic model,

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<sup>260</sup> "Criteria for Land Management and Use." *Code of Federal Regulations*. Title 44, sec. 60 (1979). <http://www.ecfr.gov> (accessed October 15, 2012).

<sup>261</sup> Federal Emergency Management Agency. *Flood Insurance Study Number 18005CV001A*.

<sup>262</sup> Federal Emergency Management Agency. *Flood Insurance Study Number 18005CV001A*.

<sup>263</sup> Federal Emergency Management Agency. *Flood Insurance Study Number 18005CV001A*.

for example, the difference between a detailed and approximate analysis might be the presence or absence of parameters such as stream channel geometry (i.e. width and depth of the channel at a series of cross-sections) or roughness coefficients that represent how much friction is being imposed on the flow of the river by vegetation or other surfaces.<sup>264</sup> Measurement of these parameters requires field inspection and it may not be feasible to survey every stretch of stream throughout a particular study area.

As is the case with all environmental modeling efforts, some degree of error resides in the flood elevation data depicted by FIRMs. Predicting the spatial extent of a flood for any given magnitude (e.g. 50-year, 100-year, or 500-year recurrence intervals) is no simple task. It involves a multi-step procedure beginning with data collection, then conducting hydrologic and hydraulic analyses, interpolating flood elevation values between cross sections along a stream channel or coast, and ultimately extending those flood elevation values outwards, perpendicular from the direction of the water body such that any areas where the topography is the same elevation as the flood or below it will be “filled” with the modeled water.

Being that FIRMs are the authoritative source for establishing insurance rates and regulating floodplains, it is imperative that a system exists for updating FIRMs should communities discover erroneous flood boundaries.<sup>265</sup> When a community seeks to revise the boundary of a floodplain as depicted by the standing FIRM, they can do so themselves, but must submit their revised delineations to FEMA for approval along with full documentation of why the original delineation was wrong or why it has since changed, the new data that was used as

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<sup>264</sup> Federal Emergency Management Agency. *Flood Insurance Study Number 18005CV001A*.

<sup>265</sup> U.S. Federal Emergency Management Agency. *Managing Floodplain Development Through the NFIP*. FEMA Library, IS-9, 2007.

input for models, methodology, and a payment for revision.<sup>266</sup> Upon review, FEMA will then respond to the Chief Executive Officer of the community with either a denial for revision or if accepted, a Letter of Map Revision (LOMR) that includes a formal approval and an updated version of the FIRM.<sup>267</sup>

The efficiency of the revision process has been greatly improved by advancements in information technology such as geographic information systems (GIS) and digital data that can be disseminated with ease. New technologies such as these have also improved operational cost savings within the NFIP, although miniscule when compared to the massive debt that the program owes to the U.S. Treasury.

## REFORM

The 2005 hurricane season (Katrina, Wilma, and Rita) abruptly forced the NFIP into a deficit of roughly \$21 billion dollars that it will never repay.<sup>268</sup> Prior to this record-breaking hyperactive season — it recorded the highest accumulated cyclone energy (ACE) index in U.S. history — the most that had previously been borrowed from the Treasury to reimburse flood claims was \$300 million in 2004, which was also a historically hyperactive season.<sup>269</sup> <sup>270</sup> With many climatologists pointing to the steady increase of sea surface temperatures as cause for

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<sup>266</sup> "Criteria for Land Management and Use." *Code of Federal Regulations*. Title 44, sec. 60 (1979). <http://www.ecfr.gov> (accessed October 15, 2012).

<sup>267</sup> "Criteria for Land Management and Use." *Code of Federal Regulations*. Title 44, sec. 60 (1979). <http://www.ecfr.gov> (accessed October 15, 2012).

<sup>268</sup> Grannis, Jessica. Georgetown Climate Center, "Analysis of How the Flood Insurance Reform Act of 2012 (H.R. 4348) May Affect State and Local Adaptation Efforts." Last modified August 14, 2012. Accessed October 20, 2012. <http://georgetownclimate.org>.

<sup>269</sup> U.S. Department of Commerce, "NOAA Reviews Record-Setting 2005 Atlantic Hurricane Season." Last modified April 13, 2006. Accessed October 15, 2012. <http://www.noaa.gov/newsarchive.html>.

<sup>270</sup> "Flood Insurance and Hurricane Katrina." *CPCU eJournal*. 59. no. 9 (2006): 1-21. <http://www.cpcusociety.org> (accessed September 15, 2012).

concern of a future that holds increasingly more frequent hyperactive hurricane seasons, the shortcomings of the program need to be resolved if it is to be considered a practical vehicle for mitigating flood losses. What these shortcomings have collectively amounted to is the inability of the program to accumulate ample reserve funds to cover catastrophic events such as Katrina, and now Sandy.<sup>271</sup>

Repetitive loss properties have been particularly problematic for the program's financial well-being. It has been estimated that these properties which are repeatedly exposed to flood waters comprise approximately 1% of all the NFIP's policy holders yet receive around one-third of the flood relief expenditures.<sup>272</sup> Similarly, homes and businesses that were constructed before the program began and thus before FIRMs were drawn have been pardoned of paying the full premium rates that they would otherwise be obligated to pay if construction had taken place after passage of the National Flood Insurance Act of 1968.<sup>273</sup> Many of the program's policyholders have reaped the benefits of coverage while paying subsidized rates as low as 35% of what would normally be charged.<sup>274</sup> These provisions were originally necessary to encourage participation while the program was still in its infancy.<sup>275</sup> However, much time has elapsed and subsidies have lost their merit.

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<sup>271</sup> U.S. Government Accountability Office. *National Flood Insurance Program: Continued Actions Needed to Address Financial and Operational Issues*. Washington, D.C.: Government Printing Office, 2010.

<sup>272</sup> Ntelekos, Alexandros, Michael Oppenheimer, James Smith, and Andrew Miller. "Urbanization, climate change and flood policy in the United States." *Climatic Change*. 103. (2010): 597-616. 10.1007/s10584-009-9789-6 (accessed October 27, 2012).

<sup>273</sup> Ntelekos, Alexandros, Michael Oppenheimer, James Smith, and Andrew Miller. "Urbanization, climate change and flood policy in the United States." *Climatic Change*. 103. (2010): 597-616. 10.1007/s10584-009-9789-6 (accessed October 27, 2012).

<sup>274</sup> U.S. Government Accountability Office. *National Flood Insurance Program: Continued Actions Needed to Address Financial and Operational Issues*. Washington, D.C.: Government Printing Office, 2010.

<sup>275</sup> Adelle, Thomas. "Adaptation through insurance: lessons from the NFIP." *International Journal of Climate Change Strategies and Management*. 3. no. 3 (2011): 250-263. 10.1108/17568691111153401 (accessed October 15, 2012).

The Act has undergone numerous amendments since its beginning, each provoked by an alarming flood event. Most recently, the Biggert-Waters Flood Insurance Reform Act of 2012 enacted major reforms addressing the most pressing structural flaws of the program. The impacts of the bill will not be immediate, but it has laid out a course for reform that includes the gradual removal of subsidies for repetitive loss properties, enforcement of premiums that more accurately reflect risk, revamped mapping initiatives that anticipate the effects of climate change and urbanization, establishment of a reserve fund, and a long-term plan for debt repayment, among other items.<sup>276</sup>

## SUMMARY

Despite its glaring financial woes, the NFIP has historically been a success with benefits that, like most mitigation efforts, are obvious yet somewhat difficult to quantify. Protective measures aroused out of NFIP compliance have benefitted society by helping communities to evade potential losses. Inevitable extreme weather events and an expanding society will assuredly increase the risks associated with flooding in the future. As such, stakeholders in the arena of flood mitigation will need to collaboratively seek solutions, preserving the integrity of existing physical structures while implementing effective policy that dissuades development in floodplains better left alone. The NFIP can help in this regard as it shifts towards a more efficient and self-sustaining model, while maintaining the regulatory powers that come with governance. Whether the necessary reforms will take effect soon enough to avoid another plunge into deficit will be told with time, but as of now the program has been extended through 2017.

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<sup>276</sup> Grannis, Jessica. Georgetown Climate Center, "Analysis of How the Flood Insurance Reform Act of 2012 (H.R. 4348) May Affect State and Local Adaptation Efforts." Last modified August 14, 2012. Accessed October 20, 2012. <http://georgetownclimate.org>.