



WE ARE
BETTER
THAN THIS!

EQUITY

Reforming practices of shackling pregnant women in prison

Using the turnaround model in education

Access to rooftop solar for low income residents

PUBLIC SAFETY

Concussions in college sports

ECONOMIC

Rethinking savings through enterprise development

... and interviews with Corey Newhouse and William Easterly

Berkeley Public Policy Journal

Goldman School of Public Policy
University of California, Berkeley
2607 Hearst Avenue #7320
Berkeley, CA 94720-7320

CONTRIBUTE TO BPPJ

We welcome submissions on any policy topic for publication in our journal or on our website. For more information, please visit bppj.berkeley.edu/submissions

READ PAST ISSUES

An archive of current and past issues of the Berkeley Public Policy Journal is available at bppj.berkeley.edu/archive

CONNECT WITH BPPJ


www.bppj.berkeley.edu
facebook.com/berkeleypublicpolicy
Twitter @policybears

CONNECT WITH GSPP

www.gspp.berkeley.edu
facebook.com/goldmanschool
Twitter @goldmanschool
Instagram @goldmanschool
uctv.tv/public-policy

MAKE A GIFT

Every gift affirms the mission of the Goldman School to educate policy leaders committed to the public good. It is an investment that yields continuing returns. Visit gspp.berkeley.edu/make-a-gift to learn more.



Copyright © 2017 by the University of California Regents. All rights reserved. No part of this publication may be reproduced in any form or by any means—electronic, photocopy, or otherwise—without written permission from BPPJ. Any views expressed by BPPJ contributors belong solely to the author and are not endorsed by BPPJ, the Goldman School of Public Policy, or the University of California.

EDITORS NOTE

We are proud to present to you the Spring 2018 edition of the Berkeley Public Policy Journal. These articles address a range of policy issues from prison policy for pregnant women to New Orleans' education strategies. We also had the honor to interview Professor William Easterly, who is an expert in development and economic policy, and Corey Newhouse, who runs Public Profit and is an advocate for data-driven and evidence based policymaking.

This edition of the Journal has been particularly special to us for two reasons. First, we invite to the Journal a new cohort of Goldman students committed to continue our work and take the Journal to new heights. We hand off the new editorial board and leave it under the capable leadership of Joseph Monardo and Henriette Rurhmann, and are confident that they will carry forward the legacy of the Journal, and enhance its growth with their innovative ideas and deep commitment to the mission.

Second, we are very proud to note that all the articles in this edition have been contributed by women and persons of color. One of the main goals of the Journal is to present traditionally underrepresented voices and add meaningfully to the policy discourse in various fields of expertise. The diversity of authors in this edition is representative of that vision and the growing strength of different communities at the Goldman School and the public policy sphere.

Finally, we are happy to share that, with the generous support of committed individuals in the Goldman community, we have for the first time established the BPPJ Prize for Outstanding Writing in Public Policy (Megha Kansara) and the BPPJ Prize for Outstanding Editorial Collaboration (Sanghamitra Mukherjee). These prizes recognize exceptional articles and committed collaboration with our editorial team throughout the semester. We congratulate the winners and wish them great success as policy professionals.

We thank the editorial team for their relentless efforts throughout the semester and for their commitment to continuously improve the Journal. We thank GSPP staff for all their support in getting the Journal smoothly functioning. Special thanks to Assistant Dean Martha Chavez for identifying the value of the Journal, constantly encouraging its growth, and supporting it all possible ways. Thank you to Dean Brady, Professor Larry Rosenthal and GSPP management for giving us the opportunity to lead the Berkeley Public Policy Journal.

We are truly honored and look forward to the Journal's promising future.

Thank you,

Manasa Gummi & Anna Radoff

BERKELEY PUBLIC POLICY JOURNAL

Spring 2018

Editor in Chief

Anna Radoff &
Manasa Gummi

Chief Web Editor:

Mathias Gibson

Executive Editor

Celeste Middleton

Print Editor

Wes Saver

Design Coordinator

Courtney Colburn

Social Media Editor

Jenn Schulz

Copy Editors

Sarang Chaudhary

Sam Finn

James Hawkins

Emily McCaffery

Joseph Monardo

Chelsea Muir

Jonathan Palisoc

Michael Pimetel

Eunice Roh

Henriette Ruhrmann

Randall Tran

Emory Wolf

Chenchen Zhang

Web Team

Rick Zarrella

Rhina Torres

Jacob Roesch

- 1 No More Shackles**
Alena Yarmosvsky
- 11 A Conversation with Corey Newhouse**
Edited by Sarang Chaudhary, Manasa Gummi, and Joseph Monardo
- 19 Drastic Measures: New Orleans' Turnaround Strategy and its Impact**
Megha Kansara*
- 27 A Conversation with William Easterly**
Edited by Sarang Chaudhary
- 39 The Great Balancing Act: Rooftop Solar For Low-Income Tenants in California**
Zineb Bouzoubaa
- 51 The Brokenness of College Football**
Jesús Guzmán
- 69 Enterprise Development: A Deeper Understanding**
Sanghamitra W. Mukherjee**

* Winner of the BPPJ Prize for Outstanding Writing in Public Policy

** Winner of the PBPPJ Prize for Outstanding Editorial Collaboration



NO MORE SHACKLES

by Alena Yarmovsky

NO MORE SHACKLES

ALENA YARMOSKY

Edited by: Courtney Colburn, Chelsea Muir,
Eunice Roh & Henriette Ruhrmann

The following article is a summary of Legal Services for Prisoners' recently released No More Shackles report, which I helped to produce over the summer of 2017. Their report, and this subsequent article, would not have been possible without the contributions and guidance of LSPC's incredibly dedicated staff, with particular thanks to Harriette Davis, Carol Strickman and Brittany Stonesifer. Thank you for your advocacy on behalf of pregnant prisoners in California. LSPC would also like to acknowledge the lead authors of AB 2530, Assemblymembers Toni Atkins, Nancy Skinner, and Holly Mitchell. LSPC acknowledges their fellow co-sponsors, the American Congress of Obstetricians and Gynecologists, District IX (California) and the American Civil Liberties Union. In addition, LSPC extends their thanks to all staff and interns, with special gratitude to: Karen Shain for her legislative advocacy, Jesse Stout and Georgia Valentine, the principle contributors to LSPC's 2014 No More Shackles report, and former interns Rebecca DeWitt and Meghan Herbert for their time and research at the start of this project. Finally, LSPC acknowledges the inspirational leadership of Dorsey Nunn, LSPC's Executive Director. Thank you for making this project possible.

INTRODUCTION

Pregnant people in correctional facilities face unique challenges. Pregnant prisoners are more likely to deliver low-birthweight babies than non-incarcerated individuals, and are also more likely to experience pre-eclampsia and preterm birth.¹ Restraints that are routine in many correctional settings pose an additional threat for pregnant prisoners; a person who is restrained during pregnancy and birth faces increased risk of medical complications.² To reduce the danger of incarceration for pregnant individuals and their families, California legislators have taken significant steps to limit the shackling of pregnant prisoners.

California state law currently prohibits the most dangerous forms of restraint from being used on any incarcerated person known to be pregnant (Penal Code section 3407). However, local implementation of anti-shackling legislation has been historically varied. In 2014, San Francisco-based

advocacy organization Legal Services for Prisoners with Children (LSPC) found that only 23 out of 58 counties had written new policies to comply with section 3407. 60 percent of California counties remained out of compliance with state anti-shackling law. This article details LSPC's recent effort to update its investigation into California's anti-shackling law, focusing specifically on the 36 counties determined to be non-compliant in 2014. As of August 2017, LSPC determined that 25 out of the 36 counties investigated, and 47 California counties overall, are fully compliant with state anti-shackling laws.

LSPC continues to shed light on the dangerous use of restraints on pregnant prisoners in California. Its most recent report is intended to encourage the 11 non-compliant California counties to come into full compliance with state law, ultimately helping to ensure that incarcerated pregnant people are treated with the dignity, respect, and care they deserve.

CURRENT LAW

Enacted in 2012, California Penal Code section 3407 bans the most dangerous types of restraints (leg irons, waist chains and handcuffs behind the body) for pregnant prisoners under any circumstances. PC §3407 (a). The law also prohibits the routine restraint of pregnant prisoners in labor, during delivery, or in recovery after delivery by stating that in these circumstances, a pregnant prisoner shall not be restrained by the wrists, ankles or both unless deemed necessary for the safety and security of the prisoners, the staff, or the public. PC §3407 (b). In addition, the law grants medical professionals the authority to direct that restraints be removed from a pregnant prisoner at any time. PC §3407 (c). Finally, section 3407 (e) mandates that each California county inform pregnant prisoners of these rights.

These policies are also mandated by the Board of State and Community Corrections in Title 15 Minimum Standards for Local Detention Facilities Division 1, Chapter 1, Subchapter 4, section 1058.5. The full text of section 3407 and Title 15, section 1058.5 are attached in Appendix 1 and 2, respectively.

HISTORY OF IMPLEMENTATION

In 2005 the California legislature passed AB 478, a bill prohibiting the restraint of pregnant prisoners in labor, during childbirth, and in recovery after delivery. In 2012, Governor Brown signed AB 2530, legislation to restrict the shackling of prisoners at all stages of pregnancy. As a result, state law currently prohibits the most dangerous forms of restraint from being

used on any incarcerated person known to be pregnant (Penal Code section 3407). Unfortunately, local implementation of California anti-shackling legislation has been varied at best. In 2014, LSPC released a report detailing the restraint policies within California's 58 county jails. As of February 2014, two years after the passage of AB 2530, only 23 out of 58 counties had written new policies to comply with section 3407.

This report's findings were based on the results of Public Record Act (PRA) requests sent to 58 California counties. Non-compliant and/or non-responsive counties were contacted a minimum of two times with information requests; non-compliant counties were provided policy recommendations and given a minimum of three weeks to come into compliance with state law.

The following compliance findings are based on the 55 written policies received and evaluated by LSPC prior to February 7, 2014:

- 21 counties were in full compliance with §3407
- 32 counties were in partial compliance with §3407³
- 2 counties were entirely non-compliant with §3407
- 3 counties did not provide policies for review

METHODOLOGY

In February of 2017, LSPC mailed PRA requests to the sheriffs of these 36 counties which were not in full compliance in 2014. LSPC again provided each county

with the text of section 3407, outlined its mandates, and requested that each county send us a copy of its policies pertaining to the restraint of pregnant prisoners.

Each county's policy was then evaluated using a four-part compliance grading system. To be considered fully compliant, the relevant policy had to include all of the following components of section 3407:

1. Mandate that a prisoner known to be pregnant or in recovery after delivery shall never be restrained by the use of leg irons, waist chains, or handcuffs from behind the body (subsection a);
2. Statement that a pregnant prisoner in labor, during delivery, or in recovery after delivery, shall not be restrained by the wrists, ankles, or both, unless deemed necessary for the safety and security of the prisoner, the staff, or the public (subsection b);
3. Specification that medical professionals' authority to require the removal of all restraints from pregnant prisoners (subsection c);
4. Requirement that pregnant prisoners be advised, orally or in writing, of these standards and policies governing pregnant prisoners (subsection e).

Of the 36 counties that were sent PRA requests in February, 28 provided their policies in a timely manner. LSPC followed up repeatedly with the eight non-responsive counties, including a second PRA request in April and phone calls as necessary. In addition, LSPC sent individualized letters to non-compliant counties. LSPC again

explained the mandates of section 3407 and provided specific recommendations for modifying each county's policy in order to come into full compliance with California law.

By July, LSPC had received policies from 35 out of the 36 California counties investigated. The following findings are based on materials LSPC has received as of August 2017.

COMPLIANCE FINDINGS

Based on the most recent policies of the 36 counties investigated, LSPC found:

- 25 counties are in full compliance with §3407
- 10 counties are in partial compliance with §3407⁴
- 1 county did not provide policies for review⁵

The 25 counties found to be in full compliance can be viewed in Appendix 3.

Of the 11 counties that are non-compliant:

- 1 county is missing three out of four components of PC §3407⁶
- 3 counties are missing two out of four components of PC §3407⁷
- 5 counties are missing one out of four components of PC §3407⁸
- 1 county did not provide policies for review⁹

As of August 2017, 46 California counties were determined to be fully compliant with state anti-shackling laws. These findings demonstrate a significant increase

in compliance since LSPC's 2014 report. Nonetheless, it is unacceptable that, five years after the passage of Assembly Bill 2530, 11 California counties have yet to sufficiently codify the rights of pregnant prisoners in their policies.¹⁰

COMMON POLICY DEFICIENCIES

FAILURE TO MANDATE NOTIFICATION OF RIGHTS

Of the 10 responding counties who are not fully compliant with Penal Code section 3407, nine counties failed to mandate that pregnant prisoners be informed of their rights.¹¹ This was by far the most common deficiency among non-compliant counties. Two counties provided the rights of pregnant prisoners on signs and in prisoner handbooks, but did not include the right to notification within their policies themselves.¹² From an advocacy perspective, LSPC recommends all counties to mandate prisoner notification within their policies, in addition to including pregnant prisoners' rights within prisoner materials. This guarantees compliance with section 3407 and ensures that jail staff, medical professionals, and prisoners are equally informed of the law.

FAILURE TO SPECIFY MEDICAL PROFESSIONALS' AUTHORITY

Two counties did not specify that medical professionals have the authority to remove prisoner restraints.¹³ Even though sections 3407 (a) and (b) allow for restraints in rare circumstances – if deemed necessary for the safety and security of the prisoner, the staff, or the public – a medical professional may nonetheless override this decision. Counties that fail to include this provision in their policies are putting prisoners at

risk of severe medical complications. A pregnant prisoner who is restrained faces increased medical risk. To mitigate this risk, it is critical that correctional officers be informed of medical professionals' authority to remove restraints if and when they deem it necessary to do so.

RELIANCE ON OUTDATED OR INACCURATE LEXIPOL MATERIAL

Twelve counties obtained their anti-shackling policies from Lexipol, LLC, a for-profit provider of policy manuals for custody organizations.¹⁴ Over the course of our 2017 investigation, LSPC reviewed six different Lexipol policies pertaining to the restraint of pregnant prisoners. Five counties are currently relying on incorrect or outdated Lexipol policies that are not in compliance with state law.¹⁵ The use of incorrect Lexipol policies is particularly concerning considering that LSPC previously noted this problem in its initial 2014 *No More Shackles* report.¹⁶ LSPC advises all counties relying on Lexipol to ensure that their policies are updated and fully compliant with section 3407. LSPC also plans to reach out to Lexipol directly to urge that it create and distribute a uniform, updated policy compliant with state law.

REFERENCE TO REPEALED OR IRRELEVANT STATUTES

In 2012, Assembly Bill 2530 repealed Penal Code section 5007.7, an outdated and less protective shackling ban. Nonetheless, LSPC found that three counties continue to refer to section 5007.7 within their policies.¹⁷ Reliance on this expired code is particularly problematic because Penal Code 5007.7 requires a medical professional to certify that a prisoner in active labor before shackling restrictions can

apply. In contrast, current law was written specifically to ensure that prisoners in labor are not shackled before they can receive medical attention (either at the correctional facility or in transport to the hospital). Counties that continue to reference repealed section 5007.7 are at risk of illegally and dangerously restraining prisoners in labor.

Several counties also cite irrelevant or unrelated statutes Penal Code section 6030. However, the shackling restrictions that were previously in section 6030 have all been moved from that statute to section 3407. Similarly, one county cited Penal Code section 3423 in its policy, a statute that dictates procedures for community treatment programs, not local jails.¹⁸

RECOMMENDATIONS

LSPC strongly encourages the Department of Corrections and Rehabilitation (CDCR), the Board of State and Community Corrections (BSCC), and all California counties to:

1. Hold counties more accountable for having up-to-date policies with current legislation;
2. Provide translated versions of all materials distributed to female prisoners, especially those that outline their pregnancy rights; and
3. Educate medical professionals on their critical role in ensuring that restraints are removed from pregnant prisoners, as provided in section 3407 (c).

PROVIDE TRANSLATED MATERIALS

Forty percent of California households speak a language other than English in the home, and over one-third of California's adult female prison population identifies as Hispanic.^{19,20} In order to ensure that non-English speaking prisoners are aware of their rights, LSPC advises California counties to provide relevant language translations of all pregnancy rights materials.

EDUCATE MEDICAL PROFESSIONALS

The fact that section 3407 (c) grants medical professionals the authority to remove restraints from pregnant prisoners makes this policy directly relevant to all medical professionals who care for pregnant prisoners. LSPC recommends that medical associations and the corrections community take steps to ensure that medical providers are fully informed of their responsibilities in caring for pregnant prisoners under section 3407. In addition, LSPC strongly urges that the authority granted to medical professionals by this law be incorporated into medical facilities' policy manuals and relevant trainings.

MANDATE SUPERVISOR APPROVAL

Sixteen counties require that a jail supervisor, and not a standard correctional officer, make the decision to restrain a pregnant prisoner in labor in the event of a safety or security threat.²¹ While not explicitly mandated by section 3407, this requirement increases officer accountability and helps to ensure that the presence of a prisoner "threat" is not routinely used to justify restraint. To ensure that prisoners in labor are only shackled under exceptional circumstances, LSPC recommends that all counties adopt a similar require-

ment. Recommended language can be found in Appendix 1 and 2.

MANDATE REPORTING

Seventeen counties also mandate reporting under any circumstance that requires shackling during labor.²² These counties mandate that, in the exceptional case a prisoner is shackled during labor due to safety or security concerns, officers must provide written documentation of the event. While time frames vary, most counties require documentation to be filed within 10 days. Because such language similarly reduces the potential for unnecessary and harmful restraint, LSPC recommends that all counties adopt reporting requirements. Recommended language can be found in Appendix 6.

CONCLUSION

Over the course of its research project, LSPC received and evaluated policies from 35 of the 36 counties investigated. On the basis of its evaluation, LSPC can now verify that the policies of 47 out of 58 California counties (over 80%) are in total compliance with section 3407.

These findings demonstrate a significant increase in compliance since LSPC's 2014 report. Nonetheless, LSCP was extremely disappointed to find that 11 California counties have yet to codify the rights of pregnant prisoners in their policies. It is unacceptable that five years after the passage of anti-shackling legislation, about 20 percent of California counties remain non-compliant with state law.

Penal Code section 3407 was enacted to protect pregnant people from experi-

encing dangerous medical complications while incarcerated. When legislation that pertains directly to the health and safety of prisoners takes effect, it is critical that California counties promptly update their policies to comply with every component of that legislation.

This article demonstrates that many California counties fail to write and update their policies in a timely, responsive manner. As a result, pregnant prisoners in California may continue to receive illegal and dangerous treatment, resulting in increased medical risk.

APPENDIX 1 Recommended Language on Mandating Supervisor Approval for Use of Restraints (Kings County)

514.8 PREGNANT INMATES

Restraints will not be used on inmates who are known to be pregnant unless based on an individualized determination that restraints are reasonably necessary for the legitimate safety and security needs of the inmate, the staff or the public. Should restraints be necessary, the restraints shall be the least restrictive available and the most reasonable under the circumstances.

In no event will an inmate who is known to be pregnant be restrained by the use of leg restraints/irons, waist restraints/chains, or handcuffs behind the body (Penal Code §3407).

514.8.1 INMATES IN LABOR

No inmate in labor, delivery or recovery shall be restrained by the use of leg restraints/irons, waist restraints/chains, or handcuffs behind the body (Penal Code

§3407).

No inmate who is in labor, delivery or recovery from a birth shall be otherwise restrained except when all of the following exist (Penal Code §3407):

- a. There is substantial flight risk or some other extraordinary medical or security circumstance that dictates restraints be used to ensure the safety and security of the inmate, the staff of this or the medical facility, other inmates or the public.
- b. A supervisor has made an individualized determination that such restraints are necessary to prevent escape or injury.
- c. There is no objection from the treating medical care provider.
- d. The restraints used are the least restrictive type and are used in the least restrictive manner.

Restraints shall be removed when medical staff responsible for the medical care of the pregnant inmate determines that the removal of restraints is medically necessary (Penal Code §3407).

The supervisor should, within 10 days, make written findings specifically describing the type of restraints used, the justification and the underlying extraordinary circumstances.

APPENDIX 2

Recommended Language on Mandating Reporting After Use of Restraints (San Luis Obispo)

523.10 PREGNANT INMATES

Restraints will not be used on inmates who are known to be pregnant unless

based on an individualized determination that restraints are reasonably necessary for the legitimate safety and security needs of the inmate, the staff or the public. Should restraints be necessary, the restraints shall be the least restrictive available and the most reasonable under the circumstances.

In no event will an inmate who is known to be pregnant be restrained by the use of leg restraints/irons, waist restraints/chains, or handcuffs behind the body (Penal Code §3407).

523.10.1 INMATES IN LABOR

No inmate in labor, delivery or recovery shall be restrained by the use of leg restraints/irons, waist restraints/chains, or handcuffs behind the body (Penal Code §3407).

No inmate who is in labor, delivery or recovery from a birth shall be otherwise restrained except when all of the following exist (Penal Code §3407):

- a. There is substantial flight risk or some other extraordinary medical or security circumstance that dictates restraints be used to ensure the safety and security of the inmate, the staff of this or the medical facility, other inmates or the public.
- b. A supervisor has made an individualized determination that such restraints are necessary to prevent escape or injury.
- c. There is no objection from the treating medical care provider.
- d. The restraints used are the least restrictive type and are used in the least restrictive manner.

Restraints shall be removed when medical staff responsible for the medical care of the pregnant inmate determines that the removal of restraints is medically necessary (Penal Code §3407).

The supervisor should, within 10 days, make written findings specifically describing the type of restraints used, the justification and the underlying extraordinary circumstances.

APPENDIX 3
Non-Compliant California Counties

ENDNOTES

1. Marian Knight & Emma Plugge, The Outcomes of Pregnancy Among Imprisoned Women: A Systematic Review, 112 *BJOG: AN INTERNATIONAL JOURNAL OF OBSTETRICS & GYNECOLOGY* 1467 (2005).
2. Alison Smock, Childbirth in Chains: A Report on the Cruel but not so Unusual Practice of Shackling Incarcerated Pregnant Females in the United States, 3(2) *TENNESSEE JOURNAL OF RACE, GENDER, & SOCIAL JUSTICE* 111 (2014).
3. After the publication of LSPC’s 2014 report, Calaveras County provided an updated version of its policy and was

<i>CA counties</i>	<i>Ban 3 restraints</i>	<i>No restraints (ex. safety issue)</i>	<i>Medical professional authority</i>	<i>Notification of rights</i>
Amador	X		X	X
Colusa	X	X		
Del Norte				
Lassen	X	X	X	
Madera		X		
Monterey	X	X		
Plumas	X	X	X	
Sonoma	X		X	X
Tulare	X	X	X	
Yuba	X	X	X	

Key

Not in compliance	9
No response	1

- determined to be in full compliance with section 3407.
4. Amador, Colusa, Lassen, Madera, Monterey, Plumas, Santa Cruz, Sonoma, Tulare, and Yuba. Colusa, Santa Cruz, and Sonoma counties are in the process of updating their policies to come into full compliance.
 5. Del Norte County.
 6. Madera County.
 7. Amador, Colusa, and Monterey.
 8. Lassen, Plumas, Santa Cruz, Sonoma, Tulare, and Yuba.
 9. Del Norte County.
 10. Del Norte County refused to comply with LSPC's PRA request to provide its policy on the restraint of pregnant prisoners.[#] Without the opportunity to evaluate its policy, LSPC must presume that Del Norte County is completely non-compliant with state law.
 11. Amador, Colusa, Lassen, Madera, Monterey, Plumas, Santa Cruz, Tulare, and Yuba.
 12. Amador and Colusa.
 13. Monterey and Madera.
 14. Amador, Inyo, Lake, Lassen, Mono, Monterey, San Joaquin, San Luis Obispo, Santa Cruz, Sierra, Siskiyou, and Tulare.
 15. Amador, Lassen, Monterey, Santa Cruz, and Tulare. Santa Cruz County has contacted Lexipol about updating its policy to come into full compliance.
 16. In 2014 LSPC determined that nine counties were relying on inaccurate Lexipol policy: Glenn, Lake, Modoc, Mono, San Joaquin, Shasta, Siskiyou, Tehama, and Trinity.
 17. Colusa, Plumas, and Sonoma.
 18. Colusa.
 19. U.S. Bureau of the Census, Population and Housing Unit Estimates (2016).
 20. Cal. Dep't of Corrections & Rehabilitation, Prison Census Data (2013).
 21. Inyo, Kings, Lake, Lassen, Madera, Mono, Monterey, Sacramento, San Joaquin, San Luis Obispo, Santa Cruz, Sierra, Siskiyou, Tulare, Ventura, and Yuba.
 22. Colusa, Inyo, Kings, Lake, Lassen, Mono, Orange, Sacramento, San Francisco, San Luis Obispo, San Mateo, Santa Cruz, Siskiyou, Solano, Tulare, Ventura, and Yuba.



**A CONVERSATION WITH
COREY NEWHOUSE**



A CONVERSATION WITH COREY NEWHOUSE

Edited by: Joseph Monardo

Corey Newhouse graduated from the Goldman School of Public Policy with a Masters of Public Policy and is the Founder and Principal of Public Profit, where she is responsible for the overall strategic direction of the firm. Founded in 2007, Public Profit is an Oakland-based research group that helps mission-driven organizations use information to improve practice.

This transcript has been edited for clarity and condensed for this print edition. The full version of the interview is available online at berkeleypublicpolicyjournal.org.

BPPJ: You are right around the 10-year mark with Public Profit. How does year 10 feel? And, as you think about the company, where is it at now versus the beginning days?

C. NEWHOUSE: It feels like the blink of an eye and like my entire life in the same moment. To be a business owner, a small business owner, of a mission driven organization like ours, really is your whole heart, your whole head, your whole everything. On the one hand, it feels like I rolled out of bed yesterday and started the company and it literally is hard to think about what my professional life was like before having a company. You know, in the preparations for our 10-year anniversary, it was really wonderful to look at the list of clients. We've worked with over 100 different clients on more than 300 different engagements over those 10 years, and the range of organizations that we've worked with, but also the number that are still with us, is really exciting. I find that to be just a huge honor, that we've really been able to work in partnership with so many amazing groups and to support what they are doing. It makes me really grateful and proud.

BPPJ: That is exciting. Then, looking at the kind of projects you worked on and the partnerships that you've built, in general but especially those that have been enduring, what do you think are the through lines there, the hallmarks of the strength of those partnerships?

C. NEWHOUSE: Especially our long-term clients, they are engaged in continuous quality improvement at scale. So, that would include Oakland Unified School District, which has 76 publicly funded afterschool programs. That would include the YMCA of San Francisco which is a million-dollar organization with 15 different branches in San Francisco and Marin County. And they are committed to continuous quality improvement for their programs and are doing so at quite large scale, programs serving tens of thousands of kids. And so, we've really been able to partner with them, both to get very clear about what they mean by quality, what they mean by quality-improvement, and then to help collect that third-party data that they can use to feed their own cycle. I think also, we — myself, included — we're all former teachers, former after-school workers, former public health advocates,

and so we have a different approach to the work, a level of humility that I think a lot of clients appreciate about us.

BPPJ: What was your path to Public Profit, and especially as you think about the experiences you had prior to founding it, how did those influence or help you prepare to begin the company?

C. NEWHOUSE: Both my parents are business owners and entrepreneurs, and I was about 10 years old before I realized that not all adults worked for themselves. So, like everything, I can blame my mom and dad [laughs]. But, joking aside, I think that I have always had a very entrepreneurial point of view and just always thought about optimizing what is the need that can be met. My first job out of graduate school actually was for a company that does strategic planning, fundraising, and evaluation. I really saw a place for an organization to exist in the space between rigor and application, and particularly to have a focus on organizations that serve children, youth, and families. And the connection to Goldman is quite direct. It was my former graduate school project client that called me up and asked if I would be interested in evaluating their, at the time, 90-plus after-school programs. And they still make fun of me because I said, 'I have a job and that sounds like a lot of work!' And they said, 'yes, it would be a lot of work.' Certainly, my dream, my long-term professional goal for myself was to form my own company. Frankly, I did not plan to do so five years out of graduate school. But the opportunity presented itself and I was able to take it.

BPPJ: Even though you had planned to

start your own company at some point, what was different from what you had expected? You mentioned that it happened faster than you might have expected, so what were the things that you had to get up to speed on really quickly?

C. NEWHOUSE: You know, the thing that I discovered and the thing I tell other aspiring business owners is that so many of the things that you think will be very difficult or are big unknowns actually are quite easy, because they are problems that lots of business owners have. So, things like payroll, things like insurance, things like taxes: there are lots and lots of small businesses that need that service, and I gladly pay QuickBooks \$50 a month to take care of almost all of that for me. And so, I think sometimes aspiring business owners get very nervous about those sorts of things, and that turned out to be the easy stuff.

I think the things that I've had to learn have really been about thinking like a business owner: thinking about costs, thinking about cash flow, thinking about the net present value of the proposal we have out in the field, thinking about billable rates. As a consulting firm, our billable rates are very important to us. But also balancing that with having a very collegial personal-growth oriented, positive environment. And those don't always exist in happy harmony. And so, really, I think, learning to be a leader. And I'll be honest — some-

I really saw a place for an organization to exist in the space between rigor and application, and particularly to have a focus on organizations that serve children, youth, and families.

times, it still chafes when I feel like people are parsing out the individual words I say at a staff meeting, or if maybe I didn't sleep well the night before and I'm just tired and annoyed, and that just is what it is. And that's just part of the journey that every leader has.

Also, continually trying to refine my knowledge about business development, business cultivation. You have to be happy with the hustle to own a business. You have to be really comfortable with that. But there are lots of ways to optimize that and get better at it, and so that's been a big learning. And honestly learning to let go of some control. I remember very clearly the phases in our company's growth when I realized that I just wasn't going to know exactly what was going to be happening with every project. And I just had to trust my team.

You know, when we bought some new software that I do not know how to use, it's a very strange feeling for me. And yet, in order to be able to grow, you have to be able to demonstrate that trust in your team.

BPPJ: Understanding that you're often working with nonprofits and public organizations, where resource constraints come into the picture, how does that affect your process, the relationships, what your client's objectives are, and how you're able to work to meet those?

C. NEWHOUSE: We have a couple of different ways that shows up. One I will say that is specific to the type of work we do, the advances in data-collection technology have brought the costs down rapidly

and profoundly, even since I started the company. And so that that has been really helpful in terms of being able to open up space for our clients to do other things than hand-enter their data or run their service through a clunky scanner. I have learned, especially, to just get much better at setting expectations about what we are able to do for our particular budget, and to be very honest and transparent about our burn rate, how quickly we are moving through that money. We have never been the kind of firm that gives clients unexpected bills they didn't know that they were going to have. And that comes at the cost of sometimes overrunning on a budget, sometimes by a lot. And so that's again been a growth area for me, especially, and for our team: how to have those conversations in ways that feel alright, but also ways that are protecting our firm. And there are times when we will encourage our clients to work with an independent consultant who has a different structure than we do, or to partner with a graduate student on a project that we could maybe help supervise if the money and the expectations are just really not a fit.

BPPJ: Following up on that, have you said 'no' to people you wanted to work with? Do you ever have to decline projects based on cost barriers or time constraints?

C. NEWHOUSE: I think one of the big things that I've learned, both working for other firms and just being part of this sphere is, your reputation is your business model. That is how you get work in this area, and people have incredibly long memories. I have very vivid memories of talking with an executive director at an organization, and I asked her if

she'd worked with 'xyz' other evaluation firm that has a sterling reputation, by the way. And she said, 'oh, they're no good because, you know, five years ago we got a spreadsheet from them and it had an error in it and we had to redo it.' And I just thought, 'oh, my word.' She was an extreme case, but I thought 'oh my word.' Something that small, like human error that got fixed, stands out in her mind. So we turn down work if we can't do it well. And we've definitely had times where our clients have come to us wanting us to do something for them that I just know we can't do well, or if we just don't have the capacity at the time to do it, or if their expectations relative to their resources are really off. That is rare, but sometimes does happen.

BPPJ: When someone comes to you with a business question or need, how do you figure out what can realistically be done and what your role in that is? On your website, you describe Public Profit's role as 'helping service organizations measure and manage what matters.' Do you think that's been a process of you clarifying and refining exactly what that role is for you, especially as you think about that communication process and setting up roles?

C. NEWHOUSE: Absolutely. And I think this is true in the evaluation field, more generally, that the lines between independent third-party evaluator, strategic planning consulting, performance coach, or cheerleader just have been changing over time. I think we have been able to get clearer and clearer about what we do well, whether that is program evaluation, helping our clients build their capacity to perform evaluation on their own, or man-

aging their data and getting it to them in ways that are accessible. Usually in the course of conversation with a potential client or a current client about new work, we are able to get a lot of signals about what they want to be different about their organization and then can start back-mapping in terms of the types of things that we can and cannot afford.

My business coach gave me fantastic advice a few years ago, that people only buy what meets an immediate and pressing need. So whenever I'm talking with a prospective client I'm trying to understand what their immediate and pressing need is.

BPPJ: Your role essentially is to help organizations that are otherwise unable to do the work that you're performing for them. Do you think there will always be a role for organizations like yours in public service, or is this something that, in an ideal system, schools, governments, or nonprofits would be able to provide for themselves?

C. NEWHOUSE: I believe very strongly in the value of an independent, external evaluation role in any kind of area that is publicly funded and/or that is serving the most-vulnerable members of our community. And not because I think that people aren't doing their best, but I think it is very easy [for companies] to lose sight of what is working and what is not. And to have someone who is knowledgeable and is supportive. We are we are not in the 'gotcha' business by any stretch. But we are also not going to pull our punches when we see things that are problematic or need to be fixed. And there is an additional credibility in some circles and

in some situations that comes with being the independent, external evaluator. That said, we are seeing more and more of our clients are really pushing to become learning organizations, and that is so much the better. I am all in favor of that, because it is only going to strengthen their ability to shine, to perform, to support their clients. And so I really see them as mutually beneficial.

BPPJ: Related to that, one of the sections of your web site is a toolbox with webinars and summaries and tips. What motivated you to include that on your website, and how have you seen those resources being utilized?

It is very easy [for companies] to lose sight of what is working and what is not.

C. NEWHOUSE: It troubles me when my when I'm at a conference or wherever I may be to see my colleagues in the field — whether they're educators, social workers, what have you — to be afraid of and be intimidated by data.

And, no small coincidence that those are often women who are afraid of and intimidated by data. There are so many opportunities to help our colleagues in the field feel more comfortable and empowered to leverage their lived experience in collaboration with especially quantitative information. So, a lot of the tools that are on our website are honestly offerings to the field, things that we found have worked for us, that have been a good fit for educators for social workers, for folks in that part of our sphere.

And, it is a calling card. All the things on our website have trainings, and training of

trainers, and webinars and things attached because, again, the way people decide to work with you is they have had a chance to check you out and see your stuff and see what you are like. So all those tools on our website are really doing dual purpose, both as an offering to our colleagues — and it's sincere; it's not it is not like we cut out the third word of everything we put in or we make you pay to get that extra stuff — but also a way to demonstrate who we are and what we're about.

BPPJ: You alluded to a roadblock that pops up especially for women as they approach data-heavy work. How did that manifest itself in your studies or your career, and what resources did you find to move past that?

C. NEWHOUSE: We're well past the days when girls and women are actively discouraged from doing math or being smart, or those things. Thank heavens, I'm glad. To think any of us grew up in those times... But, there are really deeply ingrained cultural visions about what a mathematician looks like, what a scientist looks like, what an engineer looks like. And we're changing that, but I definitely grew up with Einstein as my model of a scientist and I'm not an old Austrian guy, right? So, you know, there's even studies that show teachers convey their math phobia to their students — and teachers tend to be female and girls tend to identify with their female teachers, so on and so forth. You know, it really is just about being aware of that and forgiving ourselves for it, honestly, and actively encouraging anyone with an aptitude for these kinds of things to take it up. In my day-to-day work, I think what is possible now is just

to be, with any of my clients, female or not, extremely encouraging them to dig into this, because the fact of the matter is they have the analytic abilities. They need to use data to improve, and so that's what I'm really interested in cultivating.

And then, I will say for myself, personally, you know, I still haven't learned how to code very well. And some of that is time and just sort of what I can spend my day doing, and a little bit of it is, 'actually this may be too hard. Am I too far behind — you know, based on decisions I made when I was 17 — to catch up?' But I do think there's so much exciting work being done by a wide variety of organizations to really make the adults aware of those biases and those habits, and then encourage them to change and to actively encourage all kids — and girls, especially — to explore this interest. And anybody who looks at our website will see that we are mostly females and we are plowing through lots of data and doing all sorts of analytic work. So it is not impossible. Sometimes people ask me if I only intentionally hire women. In addition to being illegal [laughs], it is not part of our business strategy. But it has just been part of the way our team has grown.

BPPJ: Either related to students, or schools, or families, or in national policy conversations, more broadly, are there conversations you hear or general frameworks or consensus understandings that should probably change in the national policy conversation?

C. NEWHOUSE: In the circles I move in — education, out-of-school time, science, technology, engineering, and math,

or STEM education — we're in the midst of an outcomes arms race. I think in part because of the incentives that were created from K-12 education in No Child Left Behind, we've lost the ability to pay attention to the lived experiences of young people, to the quality of the services they're receiving, to the fidelity of implementation, and instead are looking only at outcomes, and only outcomes that are exceptionally complex and long-term and difficult to measure. And simultaneously there is this misplaced love affair with randomized controlled trial studies and so you put those two things together and enormous amounts of money are being spent to find tiny, tiny amounts of evidence, often at great costs, both literal costs and also tumult in the organizations doing these studies. And so, I very firmly am in the camp focusing on fidelity of implementation, quality of the services provided. That is the doorway to outcome. And taking a more sophisticated view of how those outcomes come to be. And there are huge advances in the evaluation and measurement field. Appreciating that. And still there is a large amount of money being put toward randomized controlled trials that are unlikely to show much, just because of the way they're structured.

BPPJ: When you're working on a project, what do you hope a deliverable looks like? What do you hope that it spurs, or drives the client to do?

Anybody who looks at our website will see that we are mostly females and we are plowing through lots of data and doing all sorts of analytic work. So it is not impossible.

C. NEWHOUSE: My favorite phases of projects are able to sit down with our client and show them their data and have them beat the heck out of it and really interrogate it, try to make meaning of it and make plans with it. And that is that is what we are striving for, is to try to give our clients back something that is valid to them so that they can trust it, but it's showing them something they haven't seen before and that spurs them to action. And we're really fortunate that that is a regular feature of our work. Because so many of our clients are publicly funded in some way, there is also a compliance and validation element to it, as well. And so, I know they're really happy when the school board or city council or whoever it is nods and says, 'okay, sounds like everything's going great.' And I think that's our client's favorite part, is when the expert in the suit shows up and says, 'I've looked into this carefully, and it's going okay.' And I think that that's just the reality of this kind of work, that you are serving a couple different purposes in any particular delivery.

BPPJ: What do you think the future of Public Profit is? What do you hope the future holds?

C. NEWHOUSE: World domination, obviously [laughs]. Everybody knows that evaluating nonprofit and educational programs is like the fast path to all sorts of riches and fame [more laughter]. I would like for us to have more long-term partnerships with larger organizations to really help them become learning organizations. I think that, in terms of the long-term vision of high-performing organizations serving kids and families well, that is the

contribution that we can make. And that will have the largest and longest impact in terms of the work we do. I also want us to keep innovating in the methods and approaches that we have. I think we've done a great job of being creative and innovative, thus far, and in documenting a lot of that and sharing a lot of that. And I want us to keep doing that, based on our learnings, based on what we're doing.

BPPJ: Finally, what is something exciting that's going on in the Bay Area or in Oakland or something that you're optimistic about?

C. NEWHOUSE: The work that is happening to diversify the tech sector, which may not be something that people who think of our work know that we're involved with. We've had some great opportunities to do so, all the way from encouraging better access to capital for entrepreneurs from minority backgrounds and for female entrepreneurs; to encouraging girls to code, encouraging black and brown kids to code. Here in the Bay Area, tech is such an immense wealth generator. That so many different organizations are doing really smart things to really break down those habits, those institutions silos that exist, is very exciting. And I feel so honored that we've had the opportunity to work with a number of those organizations that have multiple touch points in that process and that those efforts, I think, 10 years from now, 20 years from now, are really going to start helping to make a difference in terms of the asset gap, in terms of the representation of people in our society. What is the best sector of our economy to be in, certainly here in the Bay Area. I'm very optimistic about that.



DRASTIC MEASURES: NEW ORLEANS' TURNAROUND STRATEGY AND ITS IMPACT

by Megha Kansra

DRASTIC MEASURES: NEW ORLEANS' TURNAROUND STRATEGY AND ITS IMPACT

MEGHA KANSRA

Edited by: Sam Finn, Emily McCaffrey & Celeste Middleton

In the wake of Hurricane Katrina in 2005, the Louisiana State Legislature voted for the state-run Recovery School District (RSD) to take over 102 out of 117 schools in New Orleans, subsequently turning a majority of schools over to charter operators. Over the next decade, New Orleans saw remarkable improvement in standardized test scores and high school graduation rates, prompting President Obama to hail the RSD as a success story. But detractors pointed to the tremendous upheaval of staff and turmoil for families as significant pain points to be weighed against any potential benefits of the RSD strategy.^{1,2,3} More broadly, the RSD has become a prominent example of what can happen on the “extreme end” of education reform, a district wrested from full local ownership and charterized en masse. This piece explores the RSD’s impact and implications for national school reform efforts. Ultimately, while the RSD has resulted in substantial gains in academic achievement, many of these gains are driven by unique situational and local drivers such as the resources pouring into the city after Hurricane Katrina. The gains are also accompanied by costs, including a reduction in teachers with local roots, a less sustainable role for teachers, more spending, and less local control. As education reformers look to New Orleans as an example, any effort to emulate the RSD model must be tempered with an awareness of the long-term consequences of this mass district overhaul.

CONTEXT: BEFORE & AFTER THE STORM

New Orleans schools were facing challenges well before Hurricane Katrina. In 2004-05, Orleans Parish ranked 67th out of 68 Louisiana school districts in math and reading test scores.⁴ The district was known for dysfunction; the FBI indicted 11 people for financial mismanagement criminal offenses against the district in 2004. Leadership turnover was high, with eight superintendents serving the district between 1998 to 2005, each averaging 11 months in office.

Modest reform efforts were already underway before the storm hit. The Recovery School District was formed in 2003 and had already taken over five of the lowest-performing Orleans Parish Board schools prior to Katrina. The storm subsequently dam-

aged or destroyed about 80% of New Orleans schools, triggering further alarm about the district’s academic health. The Louisiana legislature passed Act 35, which raised the School Performance Score required for a school to avoid RSD takeover. This change allowed for the RSD to take over an additional 102 schools. The few schools remaining under local control were primarily higher-performing or magnet schools which authorities determined did not require the drastic RSD turnaround measures.^{4,5}

In the following decade, the RSD closed the lowest-performing schools and transitioned control of most existing schools to charter operators. This resulted in a fully charter district overseeing 52 schools. Between 2005 and 2014, the RSD managed a few “direct-run” schools that were eventually also taken over by charter operators or closed

over time. The existing teacher's union contract was allowed to expire, leaving teachers in a largely non-union charter environment. Taken together, these actions constituted a major talent and school control overhaul that substantially altered the district. These changes will be explored in more detail below.

GAINS IN ACHIEVEMENT

Research indicates that academic achievement and student outcomes have improved more dramatically than in many other reform efforts. The percentage of RSD students scoring at a "basic" proficiency level or above on LEAP standardized tests increased from 15% in 2005 to 57% in 2015 for students in grades 3-8, and four-year high school graduation rates jumped from 56% to 73% during the same period.³ In 2005, just one parish performed more poorly than New Orleans Parish and by 2015, New Orleans Parish outperformed 25 other parishes.³ New Orleans now holds just 9% of the state's lowest performing schools, a favorable change from 40% in 2005. An MIT study examining eleven direct-run RSD schools that have been under charter management since 2008 states, "charter school takeovers in the New Orleans Recovery School District appear to have generated substantial achievement gains for a highly disadvantaged student population that enrolled in these schools passively."⁶ A Stanford study examining average annual learning gains between the 2006-7 and 2011-12 school years indicates that New Orleans saw gains equivalent to 80 or more days of learning in math, and approximately 60 days of learning in reading.² While New Orleans' gains are exceeded by charter sectors in some other cities -- particularly Boston, which saw 0.32 standard deviations of annu-

al learning gain in math during this period -- the gains are also "dramatic" in relation to peer traditional public schools in New Orleans. Clearly, the RSD has resulted in higher test scores for the city's schools.

New Orleans and Louisiana overall still lag in nationwide academic performance, which indicates that even the significant improvement to date is not sufficient in comparison to national standards.⁷ Inequity still persists across New Orleans schools, where white and Asian students tend to have far better access to higher-performing schools than other students.⁸ A 2010 study from the National Economic and Social Rights Initiative indicates that 29% of RSD students -- predominantly black students -- were suspended at least once. This is more than double the rate that Louisiana students are suspended and four times the rate students nationwide are suspended.⁹ The mixed record indicates that the RSD's "charterization" of New Orleans still leaves substantial room for improvement.

Additionally, it is worth considering alternate factors that may be driving this academic progress. For example, Doug Harris of Tulane University points out that the shuffle of students in and out of the district during this tumultuous time -- and a likely shift in socioeconomic makeup as public housing was shut down -- makes it possible that the student population composition changed significantly.⁴ He also notes that the schools students attended in other districts and states in the years immediately following the storm may have had a significant positive impact on students who later returned to New Orleans. Further, Harris points out that per pupil funding rose by approximately \$1,000 relative to other states during this

period of time, indicating that additional resources may be a lurking variable.

Harris partially addresses these issues by conducting a separate analysis of returnees which shows a predictably smaller positive gain. Even this analysis may not fully account for the post-storm changes in student population. The families returning to New Orleans might be substantially different from the aggregate pre-storm population which makes it difficult to draw clear conclusions. Still, whereas education researchers evaluating an intervention would typically consider effect sizes of 0.02 standard deviations significant, Harris finds a “remarkable” effect size of 0.2 to 0.4 standard deviations. Digging deeper, multiple factors seem to be driving this success. First, a rush of charter schools applied to open in New Orleans post-Katrina. Between 2006 and 2012, over 150 charter applications were filed in Orleans parish, and in most years, just 30-50% of them were approved.¹⁰ In comparison, Los Angeles Unified School District approved 85% of charters in 2013-14, only dipping down recently to a 53% approval rate in 2015-16 (note that approval rates are highly influenced by the composition of the board at a given point in time).¹¹ Further, when charters came up for renewal in New Orleans, typically a quarter to half of them were not renewed -- significantly higher than the average 6% to 13% non-renewal rate among large authorizers nationwide -- indicating that the Louisiana Board of Elementary and Secondary Education was active in ending charters that did not meet academic achievement standards.¹² Specifically, growth in academic achievement and enrollment levels tend to be predictors of charter renewals, which indicates a clear incentive for charter schools to meet perfor-

mance targets.¹⁰ More qualitatively, teachers who taught in New Orleans both before and after the storm generally attest to seeing greater emphasis on academic goals and data use in the classroom, indicating that the impact of accountability measures is experienced in the classroom.¹³ This combination of a high availability of charter applicants and the BESE’s role in holding charters accountable for their academic performance likely contributed to the strong gains.

COSTS OF CHANGE

While New Orleans’ achievement gains over the last 10 years are impressive, the gains come with multiple costs. Most salient are fundamental shifts in spending, local control, composition of the teacher workforce, and teachers’ job satisfaction. Each of these changes must be carefully weighed against academic gains to evaluate the full impact of the Recovery School District.

A LESS LOCAL, EXPERIENCED EDUCATOR BASE

Nearly 90% of the student population in New Orleans’ parish is black. New Orleans’ 4,600-strong, 71% black teacher workforce in 2005 plummeted to 1,300 teachers by 2014, 49% of them black and 45% of them white.¹⁴ The decision to reduce headcount is understandable; while there were roughly 60,000 students enrolled before the storm, just under 30,000 were enrolled a year after Katrina. But mass dismissals, followed by charter schools’ new hiring has reduced the proportion of teachers rooted in and representative of the local community. The percentage of teachers who graduated from a New Orleans-based college dropped from 60% in 2005 to 34% in 2014, with the percentage of teachers graduating from out-of-

state institutions rising from 20% in 2005 to nearly 40% in 2014. Multiple studies demonstrate that having own-race teachers has positive effects on student achievement (particularly for lower performing students), graduation rates, and student attitudes and perceptions.^{15,16,17} Given the importance of having educators who share and/or can relate to students' backgrounds, it is critical to consider the negative impacts of this shift in the teacher workforce.

Further, the influx of instructors from Teach for America, The New Teacher Project, and other reformist organizations has come with a spike in teachers with 0-5 years of experience, jumping from 33% of the workforce in 2005 to 54% in 2014, accompanied by a drop in teachers with 20 or more years of experience, from roughly 38% of the workforce in 2005 to about 17% in 2014.¹⁴ The portion of teachers at 6-10 and 11-20 years of experience has stayed fairly stable at 16-19% over the same period. Thus, the teacher workforce has become substantially less representative of students and less experienced, raising concerns about their ability to effectively teach and connect with students, and their likelihood to continue teaching.

MORE PRESSURE ON EDUCATORS

Charter takeover has also significantly reshaped the experience of educators. In a survey of 323 teachers who taught in New Orleans both before Hurricane Katrina and during the 2013-14 school year, 61% of respondents reported feeling less satisfied with their jobs than they were pre-storm.¹³ Further, 54% of respondents reported working more work hours versus just 10% reporting working fewer hours. While 43% of teachers reported increased school autonomy in 2013-14, just 29% reported increased teach-

er autonomy, with 37% actually reporting decreased autonomy for themselves. Under the RSD, teachers generally work longer and feel less ownership of their classrooms without corresponding payoffs in job security and satisfaction. Black teachers reported a larger average decline in their job satisfaction, indicating that charter takeover has had a disproportionately adverse impact on precisely the group of teachers that represents the local student base.

This decline in job satisfaction seems counterintuitive in the context of positive reports from respondents that generally school culture is stronger, academic and social-emotional learning goals are better focused, students are more likely to succeed and stay in school, and there is greater support for teachers than in pre-Katrina years. For educators, many of the benefits touted by charter operators do not sufficiently offset the new pressures that come with charter takeovers.

MORE SPENDING

Though district inefficiencies are seen as key reasons for the shift to the RSD, the resulting portfolio of charter school operators actually resulted in more overall spending. In a report comparing New Orleans' publicly funded schools to a group of Louisiana school districts with similar pre-Katrina spending patterns, per pupil funding at New Orleans schools is 13% higher than the comparison set today, despite starting out at similar levels.¹⁸ Spending on New Orleans schools' administration, particularly administrative salaries, increased 66% (nearly \$700 per student) relative to the comparison set. At the same time, instructional expenditures decreased by 10% relative to the comparison group. This change is largely attributed to a shift toward newer teachers who are paid less

-- though still earning more today than did teachers at similar experience levels before Katrina.

This finding flies in the face of typical thinking that charters streamline expenses relative to bloated districts. At least in New Orleans, shifting to a portfolio of charter schools may not have addressed the financial burdens of administrative bloat and high salaries in school administration. Even if raising spending seems justified in light of positive academic gains, the study raises a question about whether the added spending should be going to educators or students' experiences more directly, rather than to administration.

LESS LOCAL CONTROL

Starting from the very beginning, with the state's takeover of schools without much consultation of the community, the RSD has come with diminished local voice in shaping schools. For the entire life of the RSD, schools were managed not by a publicly elected school board, but by the BESE. Though the RSD is now ramping down and planning to return control of its schools to the Orleans Parish Board in 2018, it is returning a set of schools now controlled by charter operators.⁵ Per SB 432, the Louisiana State Legislature's bill returning RSD schools to local control, the local school board cannot interfere with charter schools' autonomy in school programming, instruction, calendars, hiring and firing of personnel, teacher certification, salaries, and a range of other key strategic decisions.¹⁹ While the district has other powerful decision rights, such as the ability to revoke or authorize charters and hire the superintendent, there are important philosophical questions to be asked about community members' loss of

democratic control of local schools, as well as which community members are most impacted. In a Tulane University poll, 49% of black respondents supported the transition of RSD schools back to local control versus 39% of white respondents voicing support, indicating that the city's black residents see more value in regaining democratic control.²⁰ Many factors make it difficult to predict the outcome of the RSD transition, including how the district will approach accountability and leadership decisions, but it will be imperative to continue assessing how much the local community is truly able to influence local schools.

BROADER IMPLICATIONS

The example of New Orleans teaches important lessons about the value of accountability in reforming a school district and starting anew. However, questions remain about whether the model can -- or should -- be replicated in other districts. Districts elsewhere are unlikely to see the bevy of philanthropic dollars and charter operators drawn to the city post-storm, as New Orleans had a uniquely compelling post-Katrina call to action. Other districts may not be located in cities that are quite as attractive to young prospective teachers. Further, the sizable costs, particularly a markedly less representative, experienced, and satisfied educator workforce, should be considered before such significant measures are taken with other districts.

Two decades after the debut of Teach for America, KIPP, and other prominent agents in the education reform movement, it is worthwhile to pause and consider the long-term legacy of the core strategies in the movement, such as anti-union mea-

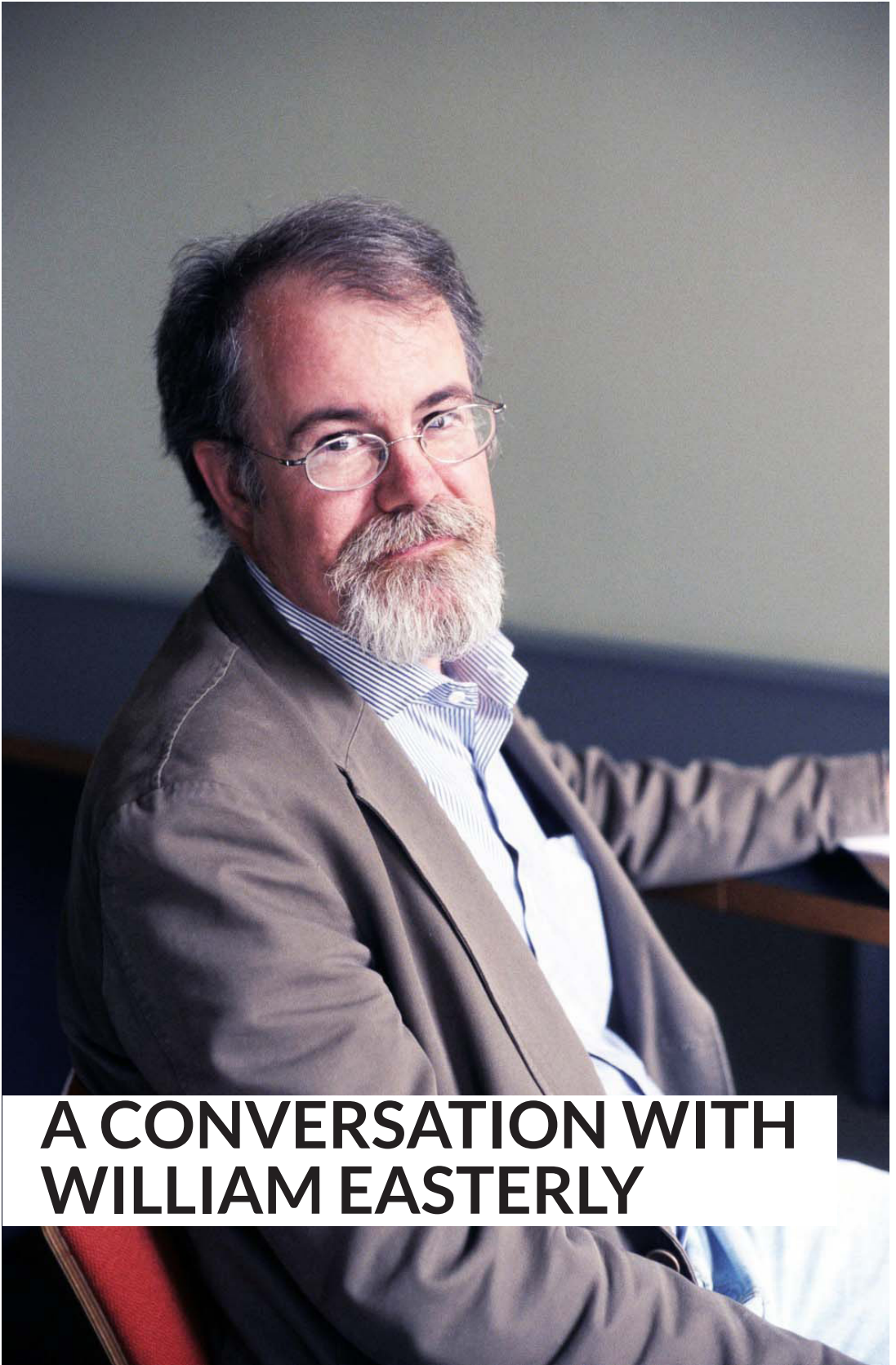
tures, charterization, and an emphasis on test scores and accountability. With the Devos administration's call for more school choice and districts like Oakland Unified School District declaring themselves in crisis mode, it is imperative to consult the RSD case study, which offers a decade-long, data- and narrative-rich case study of the benefits and unintended consequences of reformist strategies.²¹ Continuing to probe unexplored questions about the RSD era, such as long-term college graduation and employment outcomes and students' perceptions of their school experience, could further enhance our understanding of how effective reformist strategies are. Ultimately, the New Orleans story pushes education space changemakers to think in more nuanced ways about how to balance urgency to make academic gains with long-term community and student needs.

ENDNOTES

1. Gabor, Andrea. "The Myth of the New Orleans School Makeover." *New York Times*. Aug 23, 2015. <https://www.nytimes.com/2015/08/23/opinion/sunday/the-myth-of-the-new-orleans-school-makeover.html>
2. Raymond, Macke. "Urban Charter School Study." The Center for Research on Education Outcomes, Stanford University. 2015. <http://urban-charters.stanford.edu/>.
3. Rossmeier, Vincent and Patrick Sims. "The State of Public Education in New Orleans." Cowen Institute, Tulane University. 2015. <http://speno2015.com/>
4. Harris, Doug. "What Effect did the Post-Katrina School Reforms Have on School Outcomes?" Education Research Alliance, Tulane University. 28 Jul. 2016. <http://educationresearchalliancenola.org/news/what-effect-did-the-post-katrina-school-reforms-have-on-student-outcomes>
5. Hawkins, Beth. "Louisiana Turns the Page: 11 Years After Katrina, New Orleans Schools Set to Return to Local Control." *The 74 Million*. 4 May 2016. <https://www.the74million.org/article/all-eyes-on-baton-rouge-a-new-era-for-new-orleans-schools/>.
6. Abdulkadirog, Atila et al. "Charters Without Lotteries: Testing Takeovers in New Orleans and Boston." Working Paper #2014.03. Cambridge, MA: MIT Department of Economics, Dec. 2014. <http://seii.mit.edu/wp-content/uploads/2014/12/SEII-Discussion-Paper-2014.03-Abdulkadirog%20C4%20Flu-Angrist-Hull-Pathak1.pdf>
7. "Quality Counts 2015." *Education Week*. Jan. 2015. <http://www.edweek.org/ew/qc/2015/state-highlights/2015/01/08/louisiana-education-ranking.html>
8. Adamson, Frank, Channa Cook-Harvey, and Linda Darling-Hammond. "Whose Choice? Student Experiences and Outcomes in the New Orleans School Marketplace." Stanford Center for Opportunity Policy in Education. 2015. <https://edpolicy.stanford.edu/sites/default/files/publications/scope-report-student-experiences-new-orleans.pdf>
9. Sullivan, Elizabeth and Damekia Morgan. "Pushed Out." National Economic and Social Rights Initiative. Spring 2010. http://www.njjn.org/uploads/digital-library/resource_1587.pdf

10. Bross, Whitney and Douglas Harris. "The Ultimate Choice: How Charter Authorizers Approve and Renew Schools in Post-Katrina New Orleans." Education Research Alliance for New Orleans, Tulane University. Sept. 2016. <https://educationresearchalliancenola.org/files/publications/ERA-1609-Policy-Brief-The-Ultimate-Choice-How-Charter-Authorizers-Approve-and-Renew-Schools-in-Post-Katrina-New-Orleans-v2.pdf>
11. Stokes, Kyle. "LAUSD staff rejecting more charter applications, but the school board isn't always on the same page." KPCC. 10 Mar. 2016. <http://www.scrp.org/news/2016/03/10/58375/lausd-staff-rejecting-more-charter-applications-bu/>
12. "Data in Depth: Charter School Closures." National Association of Charter School Authorizers. <http://www.qualitycharters.org/policy-research/soca-2016/closures/>
13. Weixler, Lindsay Bell and Douglas Harris, Nathan Barrett. "Teachers' Perspectives on Learning and Work Environments Under the New Orleans School Reforms." Education Research Alliance for New Orleans, Tulane University. May 2017. <https://educationresearchalliancenola.org/files/publications/ERA-1705-Policy-Brief-Teacher-Survey.pdf>
14. Barrett, Nathan and Douglas Harris. "Significant Changes in the New Orleans Teacher Workforce." Education Research Alliance for New Orleans, Tulane University. Aug. 2015. <https://educationresearchalliancenola.org/files/publications/ERA1506-Policy-Brief-Teacher-Workforce-Cover.pdf>
15. Egalite, Anna J. and Brian Kisida, Marcus A. Winters. "Representation in the classroom: The effect of own-race teachers on student achievement." *Economics of Education Review*. Apr. 2015. Vol. 45. <http://www.sciencedirect.com/science/article/pii/S0272775715000084>
16. Gershenson, Seth and Constance A. Lindsay, Cassandra M. D. Hart, Nicholas W. Papageorge. "The Long-Run Impacts of Same-Race Teachers." Institute of Labor Economics. Mar. 2017. <http://ftp.iza.org/dp10630.pdf>
17. Egalite, Anna J. and Brian Kisida. "The Effects of Teacher Match on Students' Academic Perceptions and Attitudes." *Educational Evaluation and Policy Analysis*. 2017. <http://journals.sagepub.com/doi/pdf/10.3102/0162373717714056>
18. Buerger, Christian and Douglas Harris. Education Research Alliance for New Orleans, Tulane University. "Does School Reform = Spending Reform?" Aug. 2015. <https://educationresearchalliancenola.org/files/publications/ERA-1701-Policy-Brief-Expenditures.pdf>
19. SB 432. Louisiana State Legislature. 2016. <https://legis.la.gov/legis/BillInfo.aspx?i=230421>
20. Rossmeyer, Vincent and Dave Hand, Kate Babineau. Cowen Institute. "Perceptions of Public Education in New Orleans." Tulane University. 2017. <https://tulane.app.box.com/s/beo0lr9qq7bkj0dbdts16yfh8sp-wkwjhj>
21. Roth, Rob. "Oakland Unified School District's financial troubles: 'You

could call it a crisis'." KTVU. 10 Nov. 2017. <http://www.ktvu.com/news/oakland-unified-school-districts-financial-troubles-you-could-call-it-a-crisis>



**A CONVERSATION WITH
WILLIAM EASTERLY**

A CONVERSATION WITH WILLIAM EASTERLY

Edited by: Sarang Chaudhary

William Easterly is currently a Professor of Economics at New York University and Co-director of the NYU Development Research Institute. He spent sixteen years as a Research Economist at the World Bank and is the author of three books: 'The Tyranny of Experts: Economists, Dictators, and the Forgotten Rights of the Poor' (March 2014), 'The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good' (2006), which won the FA Hayek Award from the Manhattan Institute, and 'The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics' (2001).

BPPJ: Your most recent book, 'The Tyranny of Experts,' made waves in development circles. Your critics claim that the book is pessimistic and iconoclastic. Do you think that is a fair characterization?

W. EASTERLY: I never thought of iconoclastic as being a negative thing. Why would it be bad to be iconoclastic? That just suggests some debate needed to happen and it helps make this debate happen, which I think is a good thing.

BPPJ: Is it a little pessimistic as well?

W. EASTERLY: I have always gotten that criticism on every book I have written. I have written three books now, and each one got that criticism. I think it is more who or what you are pessimistic and optimistic about, rather than just a blanket statement of pessimism. You know, I think just like in the aid debate, the proponents of aid are very optimistic about the aid system and about aid bureaucracy, and I think they are too pessimistic about poor people and their resourcefulness and their ability to contribute to solutions of their own problems. In 'The Tyranny of Experts,' the debate is more about

political and human rights, and I think the pro-rights people are very optimistic about the ability of people to, again, hold people accountable for finding solutions to their problems if they have the political rights that enable them to do so. That is optimism about people's resourcefulness and willingness to participate in politics and advocate for their own freedoms and the freedoms of their neighbors. That is a kind of optimism about the future of poor people, that they are fighting for their own rights and their own freedom. I think that is pretty optimistic and that good things will happen when they do. I think we have a tendency in development to imagine that there is some kind of utopian alternative and anyone who is non-utopian is seen as pessimistic because the utopian alternative that will solve everything. But there really is not a utopian alternative available to us. Pointing that out is not being pessimistic, it is just being realistic.

BPPJ: Was that your impression when you were at the World Bank, that the general idea was that there is this utopian

Why would it be bad to be iconoclastic?

possibility?

W. EASTERLY: I would not say the World Bank was utopian, I just think they were too optimistic about tried and true solutions to development, mainly involving monetary flows of foreign aid and that the foreign aid money itself would solve all problems.

BPPJ: You frequently describe yourself as a “recovering expert,” in reference to your long stint at the World Bank. What took you so long to realize that there were problems with the World Bank’s approach?

W. EASTERLY: That is a very fair point. I am not sure why it took so long. I started working at the World Bank in 1985, and sometime around the mid-90’s I started to realize that things were not working very well. I did not actually leave until 2001, so I guess it took a while to come out. I never really thought of myself as a whistleblower but just as willing to criticize the programs that I am working for. That is hard to do, and a lot of World Bank people told me afterwards that they would like to make the same criticisms, but they did not. They were almost criticizing me, saying “You had better outside opportunities in non-World Bank jobs, so you could afford to criticize the World Bank. We did not.” I remember one person telling me, “I have kids in college, and I do not have an obvious job offer waiting for me if I leave the World Bank. I would like to criticize like you do, but I cannot.” So, I am sympathetic to that person in that predicament.

BPPJ: How open are the program manag-

ers at the World bank to your criticisms? Is there any innovation happening? Any adjustments?

W. EASTERLY: Well, I think it always differed a lot within the hierarchy. People who were actually doing the work were always pretty openminded and willing to discuss what works and what does not. They were very aware of what was not working similar to some of the criticisms that I was making. That decreases as you go up the hierarchy. The managers need to toe the party line on what the World Bank is saying and I think it is part of the obligation as economists to try and understand the circumstances that make people behave the way they do. Of course, the managers at the top face very serious political constraints. They cannot afford a real negative image of the World Bank in terms of what results it is accomplishing or not accomplishing. They need to protect the funding stream for the World Bank. Those are the sort of political motivations that help you understand their behavior, and they cannot afford to have an open debate about whether it is working or not. Unfortunately, it is important to have these kinds of debates about whether things are working in order to make progress. That is the unfortunate aspect of the political economy of aid, that the necessary debate that needs to happen to make things work is not happening because of political constraints.

BPPJ: Was there anything in particular that prompted you to become more vocal in your criticism at the time that you did?

W. EASTERLY: It was a very gradual process. An important piece of context is that

I was in the research department, which was already home to the most open debate that was happening within the World Bank, because people in the research department are very oriented towards academic audiences and publications. Actually, there was much less censorship in the research department than other parts of the bank, because you are really allowed to publish whatever you want in an academic journal. People correctly expected that no one in the press or taxpayer audience would be reading academic journals, so you can say anything you want. The decision to speak out more publically in a general media environment was not really a conscious decision, it was something that just gradually happened over time, kind of by accident, to be honest. I wanted to write a book for general audiences, which I did not intend to be a big whistleblower manifesto. I was just trying to write what I thought was honestly the consensus of the literature in different areas, and make it digestible to a general audience... That was 'The Elusive Quest for Growth,' and it got a pretty good reaction from other academics, in that they agreed that it was pretty mainstream, consensus stuff. And there was only one little part that said, "Oh, by the way, giving aid to finance investment and stimulate growth does not seem to be working, it is not based on very good theory" and so on, which was, again, pretty much in accord with the academic view at that time. But that was the point that got picked up by the outside press, so it was sort of an accident that I blundered into. I intended to be honest about everything, but I did not intend for that to be the whole focus of the book, and it actually is not the whole focus of the book if you go back and look at it.

A lot of things that happen to us - and this you will find in your own careers, as well - are often accidental and not intended by you yourself. You just sort of blunder into things, and that is sort of what happened here. I also had several great mentors as chief economists who were very inspirational about being very truthful and very honest, people like Stanley Fisher and Larry Summers, and an Israeli economist who is not very well known today named Michael Bruno. He was a great inspiration to me. When he left the World Bank around 1996, his idea of giving a farewell speech was to unleash a blast of criticism at the World Bank president, like "you are doing this wrong, you are doing that wrong, you are doing this wrong." And you know, that really inspired me, the ability to be honest and speak truth to power, that had kind of a subconscious effect on me.

I intended to be honest about everything.

BPPJ: Is foreign aid simply a tool for rich countries to enact their international policy priorities?

W. EASTERLY: Well, I think the truth is somewhere in between; one way to think about it is again trying to figure it out as social scientists. So there is a sort of political economy of how you build support for aid. You want to sell to the voters that this 'aid' is good for our foreign policy objectives and also good for helping poor people. And so if you can persuade the voters that they are getting a two for one deal and that you can both promote U.S. foreign policy objectives and also help people at the same time, it enables you to build the kind of large alliance of people

who care only about U.S. foreign policy and national security and another set of people who care only about humanitarian needs. Now you have got these two groups allied with each other and you have got a lot of support for aid. It is kind of understandable that it often happens, it happened during the Cold War. It is happening now during the war on terror. It does have some adverse effects though. Humanitarian people strike sort of like devil's bargain with the national security people: The government gives security agencies a lot more money for drone projects but then they are forced to provide development aid to people who are allies in the war on terror, but these might be the worst environments for assistance to be effective. What happened during the Cold War is happening now. Aid is being used for foreign policy purposes, and as humanitarians, you went along with that because you are getting lots of money for development. A lot of money these days is being invested in a post-conflict environment and fixing failed states (what used to be called 'nation building'). It is much better to use aid in well-targeted health programs such as vaccinations and fighting malaria and all of that. To be fair to the humanitarian agencies, they did indeed get more money for fighting malaria from the Alliance for the war on terror, but at the cost of a lot of money going to dangerous regimes and a very, very bad environments for aid to work, like Afghanistan.

BPPJ: Can you explain with a simple example why aid is so bad in post-conflict environments?

W. EASTERLY: Well, I mean here is a sim-

ple fact for you: First of all, we are often not talking about the post-conflict environment we are talking about when the conflict is happening. So you are in Afghanistan. You are giving aid for a bridge, and the bridge is blown up by the Taliban so that funding did not turn out to be very productive or you have extremely high overhead costs because any aid worker in the war-torn Afghanistan needs a very expensive team of bodyguards and security costs are enormous. It is also very hard to monitor what is happening with aid in such an environment. So it is much more likely that corruption is going to be a problem, of course, it is very well-documented that corruption has been appalling in Afghanistan.

BPPJ: So if aid is not a viable way to help these people during a time of conflict, is there an alternative way that the international agencies or World Bank in particular or aid organizations can affect the situation?

W. EASTERLY: Before you go and give a good answer to that question, which is going to be hard, let us ask another question: Why did the aid community decide that conflict was going to be the area that was getting all of the attention and almost all of the resources? Well, people who are caught in conflicts are very tragic victims of really horrible stuff. There are lots of other tragic victims of many different awful problems that are more amenable to aid fixes like health, education, or clean water and you know those things. So again it seems like there is an excessive investment in an area that has a very unfavorable cost-benefit ratio and that is taking money away from a much broader set

of people in other areas where it can prove to be effective. So that is the first reaction to your question. People will then say “are you just going to abandon the people of Afghanistan?” So if we are not going to let the U.S. Army tell us what to do on our aid programs, maybe there are other alternatives, or we can give better options to the people of Afghanistan. First and foremost, of course, there is the whole refugee issue. If we can just do better refugee programs that allow people to flee conflict. We are not there. That is usually a severe problem because the Western countries do not want to accept refugees and that is causing a significant political backlash. Maybe there are intermediate options of refugee safe areas in other countries or creating safe areas within the same country where refugees can go and avoid the horrible tragedies of conflict. But, again, remember that this is all assuming that you know invading Afghanistan was a good idea to begin with. I am watching, as I am sure many others, the new Ken Burns series on Vietnam and it seems so much like we did not learn from this route. You know there are so many parallels between what is now going on in Afghanistan and a little while ago in Iraq with what happened in Vietnam. So invading people to give them development just seems like a terrible idea. And, let me clarify, that was not the main reason for the invasion. You know there were other developing programs in Vietnam. If you study the history of development ideas, the prominence of development as an idea and as a cost took a colossal ratchet upwards at the time of the Vietnam War. So at the very moment the same thing is happening. And that is kind of repeating itself. So it seems we just keep getting stuck in the same way of thinking

that is not very productive.

BPPJ: Changing gears from governments to donor agencies, the World Bank, US-AID, or IMF are often accused of being secretive and unaccountable. Unlike democratic governments, aid organizations cannot be voted out of office, so how can we make them accountable and to whom they should answer?

W. EASTERLY: You have put your finger right onto the central structural problem of aid. We think that markets work because businesses have to be accountable to their customers. When you think democracy works a little bit, Congress has to be responsible to their constituents at some level. My mother can call her congressmen and complain if she does not get her Social Security check but if a recipient of aid does not get their cash grant that they were supposed to get under the aid program, who do they call? There is no one to call and so the powerlessness of the aid beneficiaries is a substantial structural problem which creates this lack of accountability of the aid agencies to their beneficiaries. And what fixes are there for that? Well, you could hope that if there is a lot more transparency that at least maybe the wealthy country voters can be made more aware of when aid is working when it is not. That might create more accountability. To be honest, I have had that hope for a long time now, and I have not seen it happening on an enormous scale so far. But some things have gotten better over time and maybe that reflects a more vigilant developing community holding the World Bank and IMF responsible, as well as better civil society holding them accountable. And more information flow

is becoming available through blogs and social media.

BPPJ: But that also means that the citizens of this society who are giving the aid have to hold agencies accountable whereas the people who are receiving the aid still do not have that option. What are your thoughts?

W. EASTERLY: Yeah, you are entirely correct. And that is a problem. The ideal kind of accountability would not be accountability to the donors but accountability to the beneficiaries. And that is a lot harder. I guess the reason I was mentioning the transparency with the donor public is at least you could hope that they act as proxies for the beneficiaries and they do

The ideal kind of accountability would not be accountability to the donors but accountability to the beneficiaries.

have the power to protect the interests of the beneficiaries. But the proxy shift does not work very well. It is a lot better if recipients have the right to protest on their own and have the freedom to give their reactions. Basically, what you want to have in any problem-solving system is to reward people who successfully solve problems and penalize those who cause harm. And that is what markets and democracy attempt to do imperfectly. So the question to ask is, is there some way to make the aid system something like that? I mean, you could think of trying to build a mechanism of systematic feedback from the beneficiaries into a lot more aid programs and do it in a way that beneficiaries have the power to make the feedback be taken seriously which means that there are severe consequences for

negative feedback against aid agencies. And conversely, if you get positive feedback, aid agencies should get more money to scale up the same programs. So we know those are the principles you need to make the aid system work better. But that is the paradox of accountability. Since they are not very accountable now, they have no interest in fixing the system to make it more responsible. You know the lack of accountability in software lingo – ‘it’s not a bug it’s a feature.’ You do not want accountability because it is much too risky for the World Bank to be accountable because that could drive them out of business. Like you said, they could be loaded and booted out of business if they are not working well.

BPPJ: If we can somehow connect the feedback of the beneficiaries with the donors, might that solve the accountability problem? Do you think something like micro-financing or microcredit that does have a more direct relationship between donors and recipients, would that solve some of these problems?

W. EASTERLY: It is not a panacea, but it does have a lot of attractive features about it. Microcredit is more powerful, letting poor people in charge of their problems and fix their problems just with a boost from some microcredit loans from outside. I think other programs have the same features like scholarships have that kind of attractive feature or even something like cash grants. Cash grants are turning out to be again not a panacea. It is not going to solve global poverty, but it is in a way a promising candidate and can do an awful lot of good for poor people in a way that does let them look like being in charge

of finding what works for themselves and making sure that it works. It is much more likely that that will happen if you are just giving them money directly. And there have been some studies that have come in already. There was a study in the Quarterly Journal of Economics about a randomized control trial (RCT) that feared that cash grants would go to things like alcohol and cigarettes. But they found that their cash instead seemed to go to things like building up herds or investing in your own business. So that looks pretty encouraging, a cash transfer could be a promising vehicle.

BPPJ: Let us move from accountability to the design of aid programs. According to the Millennium Development Goals (MDG) data, development projects have done what they set out to do, but with little or no impact on the bigger picture. One reason may be that projects have not been sufficiently tied to a country's strategies and policies. How would you recommend that development organizations design such programs?

W. EASTERLY: The MDG and the SDG did not have actual accountability. At the most obvious level, a lot of MDGs were not met in Africa, and some were not met worldwide. Africa was the place where there was the most intensive effort on the MDGs, and they were not met. So that tells you that there must have been not that much accountability because they were not met and there were no serious consequences. It was just like, "ok let us move on to SDGs from MDGs and forget about the MDGs." And you can kind of understand why there was not much accountability because you have sort of

a really confusing shared accountability for the goals that was shared among a ton of different aid agencies and NGOs and poor country governments. They were all mixed up together so no one could really be held accountable individually for failure or rewarded for success – it was not an effective accountability system. And frankly I think the reason they succeeded as much as they do is because there were already positive trends for all these indicators before the MDGs ever came along. We can talk about why there are these positive trends but I do not think anyone would argue too seriously that the positive trends only happened because of MDGs – they were already happening and they have continued to occur. So they could just sort of go along for the ride and claim "we helped to make progress." And also, having a fixed goal is not that productive a way to approach aid. One good thing about this RCT revolution is that they are not really thinking in that fixed goal mindset but like "let us find anything that works," be open to anything that could work and look for the things that have the most favourable benefit-cost ratio – and then really celebrate those and do a lot more of those. We talked in class last time about the investment of a dollar in malaria drugs that turned out to increase lifetime income by \$3000. So that was not part of the MDGs, that was just research looking for anything that works and then celebrating the things that work the most. The true economist way of thinking is looking for things that have the highest benefit-to-cost ratio as possible, be open to anything, not just fix your mind and your attention on one set of prefixed

Let us find
anything that
works.

goals, but be open to anything that might work. That is much more promising than having a fixed set of goals.

BPPJ: Do you see any conflict between that idea and the idea of holding people more accountable? Because if you do not have a fixed goal, then it is harder to hold people accountable when they do not accomplish anything.

W. EASTERLY: Well, we were just talking about how they were not accountable for the MDGs either. We could hope that they would be more responsible. I mean the SDGs also do not really show any progress on accountability – the SDGs tend to be things that are either very vaguely defined, which would be hard to hold anyone accountable for. There was one that sounded kind of hilarious that was “have people live more in harmony with nature.” How exactly do you quantify “people living in harmony with nature”? It seemed like there was almost an intentional vagueness that evades accountability. And then the few that are more precisely measurable and quantifiable are things that, again, will probably happen anyway regardless of whether we have SDGs or not. The level of extreme poverty is going down – it is already at a very low level, (in the most extreme definition of poverty, which is \$1 a day, amended to \$1.90 a day – that is a very severe level of poverty). And it just happens that as the world economy grows, that most countries participate in that growth and that level of poverty is going to be pretty much just disappearing. So that is happening anyway not because of the SDGs and we are really glad that that is happening, that is a great thing to

celebrate. The SDGs help us celebrate that and make even more efforts to help poor people than that is ok, that is great but do not take them to seriously as something that is really meant to hold someone accountable for a specific goal because I do not think they are really doing that.

BPPJ: To build more on design, how can development programs and policies be more effectively designed with an understanding of how individuals make decisions? Or, put another way, how can we use behavioral economics to improve decision making when designing development programs?

W. EASTERLY: I am not a behavioural economist or an anthropologist. I am just an economist and I think the first thing we start with is incentives, you want to have good incentives so that if you invest in your future you get a high rate of return. If you work harder you get to keep the most of the proceeds that you get from working harder. If you do an innovation you get to keep the proceeds of the socially beneficial innovation that induce you to want to make these innovations or adopt technology that has these benefits from other places. I think there is a way in development recently in the last 10-15 years that we have forgotten some of the ECON 101 we should have held on to and that I think should be revived somewhat within development – at least make sure that ECON 101 is happening at some fundamental level that there are incentives that reward people for doing things that are socially beneficial for the whole economy. And at a more subtle level of innovation – I agree that there are behavioral problems that people act irrationally, I act irrationally, and I am acutely

aware of that. But the solutions to that are not so easy – where are you going to find an entirely rational policymaker who can fix my irrationality? How are we going to arrive at that perfectly reasonable policy if the policymaking process in itself is prone to be irrational and involves irrational individuals that are not only failing to solve their problems but are also involved in making policy? It is like asking an irrational policymaker to fix the issues of an irrational individual – I do not know what is going to be the outcome.

BPPJ: What role can we as policy students play in these organizations/think tanks, how can we avoid reinforcing the same negative patterns in foreign aid?

W. EASTERLY: First of all, you can be involved in policy debates, and there are lots of ways to be involved in policy debates – as a policymaker, by belonging to a think tank, as an academic – there are lots of different vantage points from which you can be involved in public policy debates. And I think in policy debates in which people try hard to get the right answer there actually is progress over time. Despite all the scepticism that we have been talking about in this conversation – as I said, the trends are positive all the material trends, like access to clean water, falling mortality rates, maternal mortality, infant mortality, under-5-mortality, life expectancy, rising education levels – all these things are going right. I think that at least part of it is, also in the field that I tend to work in, sort of macroeconomic policies that are either destructive or conducive to a good environment for growth and poverty reduction. I think that is an area where there has been a lot of progress over time in kind

of doing away with really extreme bad policies like really high inflation rates or really negative interest rates on savings. There has been progress over time that was advanced by having good healthy policy debates in those areas. Even advocacy is kind of a cousin of policy debate I guess – advocacy for human rights, for holding aid accountable, for preventing violations that happen to poor people in having their land seized by the government or even by a development project. And lastly, the thing we tend to think of most finding tangible ways in which you can be involved in some tangible thing that really gets some quantifiable benefit to a poor person that become – that is probably the overall scepticism about the aid system – you have to remember it is such a wide open area it seems like there is and there has been a lot of opportunities to have success in this area. You are talking about a very large pool of poor people in the world and a pretty large pool of money from rich people in rich countries that is being made available to solve the problems of really poor people and in that situation you should be able to find something that uses rich people's money and technology to do good for poor people who are lacking capital and technology. We know there have been successes already doing that – things like vaccination and fighting malaria and the progress on clean water and lots of other areas. So if you put it that way, it is indeed so possible to do good always keep that kind of hopeful attitude that the field is so wide open, there are so many possibilities, to take the money and technology of rich people and make it available to poor people that if you just want to be patient and search enough and test and compile evidence on which

ones are working and which ones are not working, a lot of which RCTs are doing, surely you can find some successes – there already have been successes, so there is a lot of hope in all of those areas.

BPPJ: So we should keep working but be a little skeptic at the same time?

W. EASTERLY: You know, people tend to think of scepticism as this destructive, nihilistic thing. We forget that scepticism is central to the whole scientific process: Galileo was sceptical that the sun was revolving around the earth and that made possible a huge revolution. Doctors became sceptical that stabbing you and

Scepticism is just a way of vetting the possible solutions.

drawing blood from you was not good for your health and that scepticism eventually led to a huge revolution in medicine. Scepticism is just a way of vetting the possible solutions and then making sure that the one that works is

the one that survives this wave of scepticism, so applying that wave of scepticism to many possible solutions is a way of killing off the bad ones but it is also a way of making sure the good one really does get verified and the kind of funding and attention it deserves. So I do not think of scepticism as a destructive thing, I think of it as a very constructive thing in the whole development business

BPPJ: What do you see as the most hopeful trends in development now, as hopeful directions we could take?

W. EASTERLY: Well, I am a little less hopeful now than I was before the ad-

vent of Trump and Brexit, but before that I was hopeful about the positive global trends towards democracy, democratization, human rights, and growing individual rights. I thought that was a positive trend. But you know, progress is not really linear or 100% in one direction. It is always a “two steps forward, one step back” kind of thing going on with all the development indicators, including this one, and now we are seeing a very serious retrograde step. That is also related to another issue I’m starting to care a lot more about, which is this scary resurgence of racism and xenophobia. I think development economists should be involved in that issue, also. I think development helps us understand that all people have equal potential. We do not want to engage racists in serious conversation, but if they are making an intellectual mistake, it is attaching some type of group essence to people that does not really exist. From a development point of view, all people have equal potential, and if they have different outcomes, it is because of circumstances and institutions and governments and lots of other things, including the effect of long-standing Western oppression and racism itself. I think we are now having to fight some battles that some of us thought were already won, but I am hopeful that those battles will be won once again and there will be positive progress in all of those areas, in democracy, human rights, and rejecting racism and xenophobia.

The image features a vibrant blue sky with scattered white clouds in the upper half. The lower half is dominated by a perspective view of a vast array of solar panels, showing their grid-like structure and metallic frames. The panels are arranged in neat rows that recede into the distance, creating a strong sense of depth and scale.

THE GREAT BALANCING ACT: ROOFTOP SOLAR FOR LOW-INCOME TENANTS IN CALIFORNIA

by Zineb Bouzoubaa

THE GREAT BALANCING ACT: ROOFTOP SOLAR FOR LOW-INCOME TENANTS IN CALIFORNIA

ZINEB BOUZOUBAA

Edited by: Chenchen Zhang,
Michael Pimentel & Sarang Chaudhary

Low-income communities are disproportionately impacted by the negative effects of our nation's conventional energy systems. Greenhouse gas (GHG) emissions from industry and fossil fuel power plants in these communities contribute to health disparities and a cycle of neighborhood disinvestment, creating poverty in the communities least able to overcome it. Additionally, GHG emissions from conventional energy systems are a primary contributor to climate change, the impacts of which are also disproportionately experienced by low-income communities in the U.S.

Acknowledgement: This report was completed as graduate student research with the Office of Ratepayer Advocates at the California Public Utilities Commission, but the analysis reflects my own findings and analysis.

THE PROBLEM

Low-income communities are disproportionately impacted by the negative effects of our nation's conventional¹ energy systems. Greenhouse gas (GHG) emissions from industry and fossil fuel power plants in these communities contribute to health disparities and a cycle of neighborhood disinvestment, creating poverty in the communities least able to overcome it.² Additionally, GHG emissions from conventional energy systems are a primary contributor to climate change, the impacts of which are also disproportionately experienced by low-income communities in the U.S.³

Rooftop solar may alleviate some of these burdens. By displacing some conventional sources, solar reduces overall GHG emissions, which could reduce the disproportionate pollution and climate change

burdens experienced by low-income communities. Additionally, as low-income households spend a greater portion of their income on utility bills, solar may result in economic benefits by reducing energy costs and allowing households to participate in the energy system as producers, not just consumers.⁴

Despite the promise of this technology, its declining costs and growth in its installed capacity, California's low-income and multifamily rental housing sector is largely underserved by it. In fact, in California today, there is less than 1 percent penetration for solar in this market and only 4.2 percent of solar installations under the California Solar Initiative have been in households with incomes less than \$40,000 per year.^{5,6}

To address this imbalance, the California State Legislature passed Assembly Bill

(AB) 693, creating the Multifamily Affordable Housing Solar Roofs (MAHSR) program. Specifically, AB 693 aims to “install qualifying solar energy systems that have a generating capacity equivalent to at least 300 megawatts for the express purpose of lowering the energy bills of tenants at low-income multifamily housing.”⁷

However, with the addition of solar electric capacity comes increased strain on both the grid and grid management.⁸ When solar capacity is installed, it creates a timing misalignment between peak energy supply and peak demand: peak energy production by solar occurs midday while peak demand occurs in the early morning and late evening. Figure 1, commonly referred to as the “Duck Curve,” illustrates the unique set of systematic grid challenges produced by the non-controllable, intermittent nature of energy supplied by solar.

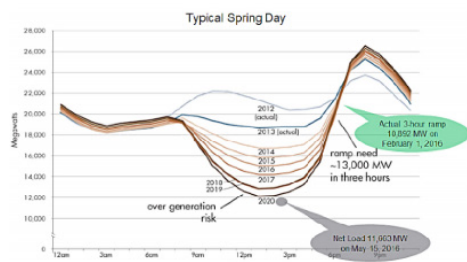


Figure 1: The duck curve shows steep ramping needs and overgeneration risk

The net load curves represent the variable portion⁹ of energy the California Independent System Operator (CAISO) must meet in real time.

Continuing to add solar resources could make both the transmission and distribution grids unreliable. At the same time,

low-income communities, already experiencing disproportionate energy burdens, share the costs of solar through increased distribution costs but do not share the benefits. As such, the California Public Utilities Commission, charged with implementing AB 693, must contemplate how to expand the benefits of solar to low-income communities while balancing grid challenges associated with increased solar generation.

CONSIDERATIONS FOR AB 693 IMPLEMENTATION

MAHSR aims to target consumers not reached by existing programs such as Multi-family Affordable Solar Homes (MASH) and Single-family Affordable Solar Homes (SASH).¹⁰ At maximum penetration, MAHSR has the potential reach over 2,000 properties, comprising more than 150,000 low-income renters—an estimated 30% of the affordable multifamily housing market in California.¹¹

The following issues should be addressed as AB 693 is implemented by the CPUC:

- **Overgeneration Risk:** AB 693 fails to address the grid challenges associated with the addition of substantial amounts of solar PV and the potential cost-shifts that overgeneration could place on general ratepayers
- **Qualifying Energy Technologies:** AB 693 does not specify what constitutes “qualifying energy technologies” nor does it specify how systems will be installed.
- **Sustainable Growth in Solar for Low-Income Communities:** Eligibility for MAHSR is deed-restricted

and has size requirements for MAH units. As MAHSR has not identified how installed rooftop systems will be sized, it is unclear if installed systems will meet MAH tenants' needs.

- Pending Default of Time-of-Use (TOU): When TOU rate structures default in 2019, the value of installed solar PV installed systems is estimated to decline by roughly 44%¹² due to the misalignment between peak production and peak demand hours (as shown in Figure 2). Without a remediating policy, this could potentially disincentive solar development in California.¹³ Diminishing solar value adds to the challenges of publicly funded solar programs for affordable housing programs and exposes economically vulnerable to the financial risks associated with solar PV without any means for assistance.¹⁴

- Unique Billing Structure for Low-Income Multi-Tenant Customers: Some utility bills are received by landlords of MAH properties through a master meter; therefore, a reduced energy burden for the property does not necessarily translate into benefits for consumers. The addition of utility allowances and rent adjustments further complicate tenants' reception of energy cost savings. In addition, MAH buildings are often on multiple rate structures with individual units facing standard residential electric or CARE rates and common areas facing commercial rates which have associated demand charges. Because AB 693 does not address these challenges, there is potential for landlord benefit but low-income tenants may either be negatively impacted if their rent increases as a result of solar installations, or they may not receive any cost savings benefits.

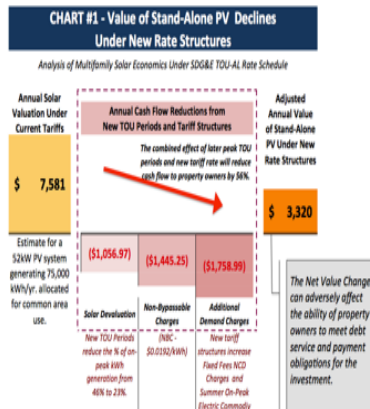


Figure 2: Sample calculation of the decline in standalone solar value after TOU rate implementation

Addressing these challenges is critical for meeting California's renewable energy targets and extending access to renewables to low-income communities while maintaining the provision of reliable electricity service at just rates. Any implementation guidance pursuant to the goals of AB 693¹⁵ should also meet the following objectives:

1. Minimize threats to grid reliability.
2. Offer sustained growth in rooftop PV for low-income communities.
3. Reduce energy burdens for low-income consumers by making qualifying solar energy systems more accessible.

ALTERNATIVES

1. **Status Quo:** All policy alternatives will be compared to a baseline hypothetical status quo, in which low-income consumers lack access to solar PV. This comparison will aim to demonstrate whether low-income consumers are left better or worse off under the three policy alternatives than with no solar policy at all.
2. **Size Installed Solar to Total Load Limit:** This option seeks to maximize both potential solar generation in MAH units and energy savings to low-income consumers under current Net Energy Metering (NEM) rate structures. Solar capacity would be installed such that the total amount of energy generated by the MAH unit's rooftop system in a given year would approximately match the unit's total load for that year.
3. **Size Installed Solar for No Net Export:** Installed solar PV would be pre-determined to match MAH units' maximum consumption during midday resulting in under-sizing installed rooftop systems with the goal of preventing the generation of excess energy. By limiting the system's generation capacity to midday energy consumption, this alternative aims to address the mismatch between generation and consumption patterns and reduce energy export to the grid.
4. **Install Solar with Energy Storage:** This alternative would include energy storage as technology eligible for integrated solar energy systems in MAH units. Each system would be installed sized to meet a given MAH

unit's energy needs along with an onsite storage unit, with the goal of preventing two-way grid flow by storing excess energy onsite for later use.

EVALUATION CRITERIA

These alternatives will be evaluated using the criteria below. Note that environmental and health benefits, though important to consider in the comparison of policy alternatives, are difficult to measure and are thus, out of the scope of this article.

EFFECTIVENESS

How successful is the policy alternative in achieving the above objectives? How effective is each alternative in comparison to the status quo?

Offer sustained growth in rooftop PV for low-income communities.

COST

What are each alternative's associated costs? Is the alternative cost-effective? What are the avoided costs?

Factors for cost analysis:¹⁶

- What will be the relative value of technology in the face of California's default to time of use (TOU) rates in 2019?
- How high is the potential need for costly distribution grid upgrades to mitigate oversupply risks? The discussion of distribution grid upgrades will be based on an analysis of over-generation risks associated with the proposed solution.¹⁷

EQUITY

The goal of MAHSR and similar programs

is to promote growth of solar for low-income consumers so they can participate and benefit from the same cost reductions as current Net Energy Metering (NEM) customers. This evaluation criterion assesses how the benefits of the policy, in terms of energy bill reductions and cost savings, are distributed and who will be impacted.

ANALYSIS

A Note About Time of Use Rates: With current NEM structures, all non-participant ratepayers (i.e. ratepayers who are not on the NEM tariff), including low-income ratepayers, subsidize the utility bills of those who can afford the installation costs associated with rooftop PV. In addition, during peak solar production times, the supply of electricity generated from PV exceeds demand during these times, creating inefficiencies. Hence, California will be defaulting to time-of-use (TOU) rates in 2019.¹⁸ This means that ratepayers serviced by California's three Investor-Owned Utilities (IOUs), Pacific Gas and Electric (PG&E), San Diego Gas & Electric (SDG&E), and Southern California Edison (SCE), will now be charged based on the time of day they consume energy. To promote electricity use during the day when solar reaches peak production and when the potential for overgeneration is highest, TOU rates will be higher during peak load and lower during off-peak hours. Though the new rate structure is beneficial for grids, it decreases the market value for solar PV and poses a threat to the growth of solar in California.

STATUS QUO

All policy alternatives will be compared to a baseline hypothetical status quo, in which the low-income lack access to solar PV. This comparison will aim to demonstrate whether low-income consumers are left better or worse off under the three policy alternatives than with no solar policy at all. The status quo is ineffective,¹⁹ potentially costly, and inequitable.

SIZE INSTALLED SOLAR TO TOTAL LOAD LIMIT

Sizing installed solar systems to total load is somewhat effective, potentially costly, and fairly equitable. Because rooftop systems would be sized to match the annual energy needs of MAH properties, MAH tenants would have increased access to energy generated from solar PV. If this option were specified as a qualifying solar energy system under AB 693, solar PV would be potentially more accessible than under the status quo, because AB 693 does not currently specify the size of installed systems. This feature may result in system under-sizing. In addition, because this option seeks to maximize the potential solar generation in MAH units and energy savings low-income consumers would receive, it reduces energy burdens for low-income consumers and offers greater potential for sustained growth in rooftop PV for low-income communities. However, because this option seeks to maximize the amount of solar energy that can be generated by eligible MAH properties, it contributes to the deepening of the Duck Curve shown in Figure 1, and adds to existing threats to grid reliability. Similar to the status quo, sizing installed system to total load does nothing to address burgeoning solar devaluing concerns. After TOU rates are implemented,

these systems would still face a comparable sharp decline in value. In addition, because this option proposes to add substantial solar distributed resources to the grid, it contributes to solar overgeneration. Thus, distribution grid upgrade costs associated with this option are higher than the status quo because of the addition of solar PV. The need for increased RA requirements could be higher than the status quo because this option attempts to maximize solar generated from distributed resources on a per MAH property basis. This contributes to grid volatility and would necessitate increased distribution capacity.

Finally, because systems are installed to match the energy needs of low-income tenants in eligible MAH properties, this option is fairly equitable. Low-income tenants would be energy consumers and producers under this option and experience greater energy savings than in the status quo under current NEM structures. In fact, as shown in Figure 3 below, under this policy MAH properties could see an estimated 52% utility bill reduction.²⁰ Differing rate structures within and across MAH properties (master-metering vs. commercial rates) and the variability in how individual landlords pass benefits onto consumers still present a key issue to benefits of such programs. While there is higher potential for low-income consumer benefits under this option, benefits may not be realized without additional regulatory policies requiring increased consumer benefits from MAH landlords.

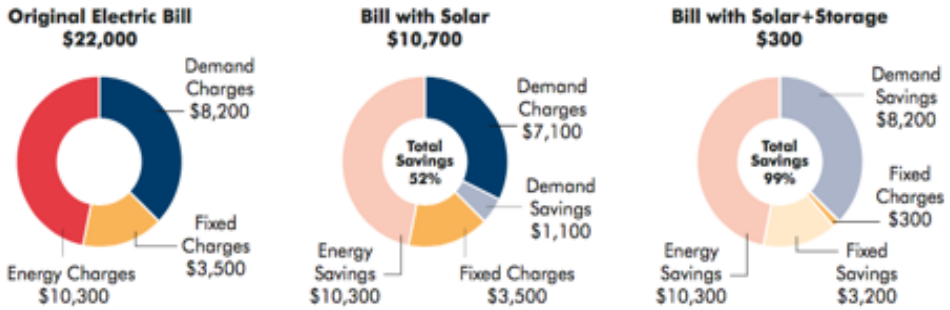
SIZE INSTALLED SOLAR FOR NO NET EXPORT

Sizing installed solar systems for no net

export is somewhat effective, potentially costly, and fairly equitable. Similar to the sizing to total load option, if this option were a qualifying solar energy system under AB 693, it would offer increased access to rooftop solar relative to the status quo. While this option would reduce energy burdens for low-income consumers relative to the status quo, it does not offer the same level of solar expansion as sizing installed systems to total load. Because installed solar PV systems would be sized to MAH properties' energy needs during peak solar production hours, installed systems would have smaller capacity and likely less generation than the systems installed under the previous option.

Thus, the under-sizing of systems would make it unlikely this option can offer sustained growth, at least not to the extent the previous policy option can. However, unlike the status quo and total load option, this alternative addresses the potential for overgeneration. By preventing the generation of excess energy, two-way grid flow is avoided while still allowing low-income consumers to generate solar energy. While this does not reverse the steepness and deepening of the Duck Curve, this option does not contribute to it. Relative to the previous option, threats to grid reliability are reduced, which is a potential benefit to all ratepayers in addition to low-income consumers.

This policy option's cost would be comparable to the total load option's. Installed systems will face the same declining value concerns after TOU rates default. Because this option proposes to add intermittent sources of energy to the grid, there is also still a cost associated with potential in-



SCE3 building original electric bill, electric bill and savings after deployment of solar, and electric bill and savings after deployment of solar+storage. Solar eliminates energy consumption expenses and lowers demand charges, saving \$11,400. The addition of battery storage eliminates demand charge expenses and lowers fixed charges, saving an additional \$10,300 per year.

Figure 3: Example of impacts on electricity bills in MAH buildings from the addition of solar and solar + storage using SDG&E GS-2-B TOU tariff

creased RA requirements, but not to the same extent as the total load option. However, this option differs from the previous one in that it would not contribute to a need for costly distribution grid upgrades. Because solar generation will be capped at peak production during midday hours, there is no risk for grid oversupply from these systems. While this is merely a bandage solution to a larger systemic issue and may not be sustainable over time, it is a relatively cost-effective option.

This option is nearly identical to that the previous one in terms of equity concern, as both policy alternatives face the same variability in MAH property rate structures and tenant benefit realization. The only exception is that under this option, it would not be possible for 100% of an MAH building's energy needs to be met, as installed systems would be undersized. Thus, there is less opportunity for cost savings associated with utility bill reduc-

tions in this option than in the total load alternative.

SOLAR + STORAGE

Solar + storage is effective, less costly, and equitable. Under this solution, rooftop systems would be installed and sized to meet MAH properties' needs, placing no restrictions on the size of the system installed. The installed storage unit would ensure that energy generated in excess can be stored for later use by tenants in MAH properties. Thus, including solar + storage as a qualifying technology under AB 693 would make solar PV more accessible to MAH properties, offering reductions in energy burdens.

Since tenants in MAH properties would have access to unused energy stored from peak production, there is greater potential sustainable growth in rooftop PV for low-income tenants than with simply installing rooftop solar. This growth would

occur in a manner that does not weaken grid reliability. For example, storage can reduce the likelihood of power outages and power quality anomalies²¹ associated with the introduction of large amounts of standalone solar to the grid.²² Benefits associated with improved electric service reliability is an estimated \$359/kW for all ratepayers, particularly those under commercial rates.²³

Solar + storage is also less costly than installation of solar alone. Though the value of the solar systems installed under this solution would still face the dramatic devaluing that will occur after TOU implementation, adding an energy storage unit can recover a substantial amount of this loss. It is estimated that solar + storage has the potential, through energy cost savings, to cover the cost of the storage unit in addition to offsetting solar devaluation. Also, solar + storage can offer delay, and in some cases entire avoidance of, costly distribution grade upgrades. Although the need for a storage unit in addition to a rooftop solar system presents a higher upfront cost, because a small amount of storage can provide enough incremental energy to defer the need for large investments in distribution grid upgrades, potential avoided costs are high. As shown in Figure 4 below, this avoided cost has an estimated value of up to \$1,079 per kVA²⁴ of storage for one year of potential upgrades.

Upgrade Scenario	Final Rating (MVA)	Capacity Added (MVA)	Upgrade Factor	Upgrade Installed Cost* \$/kVA**	Upgrade Annual Cost*** \$	Storage 1 Year Benefit* \$/kVA-year
1b	3	0.25	185.5	2,482,500	273,075	759
1c	4	0.33	220.7	3,530,667	386,373	1,079
1d	6	0.50	331.0	5,558,000	855,380	1,821

*If marginal cost per kVA of T&D capacity \$/kVA added is \$852/kVA.
 **Per kVA installed
 *** \$Upgrade Installed Cost * 0.110 Fixed Charge Rate
 # \$Upgrade Annual Cost = 360 kVA. (Based on 3.0% storage power)

Figure 4: Summary of transmission and distribution grid upgrade costs and benefits for systems in the highest 50% and 10% of upgrade costs

Lastly, solar + storage is equitable. Adding storage to solar PV systems under AB 693 can reduce demand charges by a range of 43% – 100% in MAH properties²⁵ (Figures 3 and 5). As shown in Figure 3, depending on TOU rate structures and building patterns of energy use, solar + storage can reduce overall utility bills by up to 99% in units on commercial rates, compared to up to 52% cost savings associated with standalone solar sized to total load.²⁶ Using a different model, this translates into \$1198 per kW of annual cost reduction benefits for MAH properties.²⁷ Under this alternative, there are still systemic challenges associated with passing on net monthly benefits to tenants due to the variability in utility allowance structures.

	Demand Charges (\$/kW-year)	Average Load Factor	Energy Use (kWh/year)	Energy Price (\$/kWh)	Energy Charges (\$/kW-year)	Total Charges (\$/kW-year)
With Storage (\$)	73.3	0.60	5,269	7.81	412.9	486.2
w/o Storage (\$)	127.6	0.550	5,166	8.51	439.5	567.5
Change, w/Storage (\$)	-54.3	+0.014	+123*	-0.71	-26.9	-81.2
(%)	-42.6%	2.4%	2.4%	-8.3%	-6.1%	-14.3%

*Increase due to storage losses.

Figure 5: Electricity bill comparison under the E-19 TOU service tariff, with and without energy storage

However, benefits of low-income tenants under this option are more pronounced and thus, this option is relatively the most equitable (Figure 6).

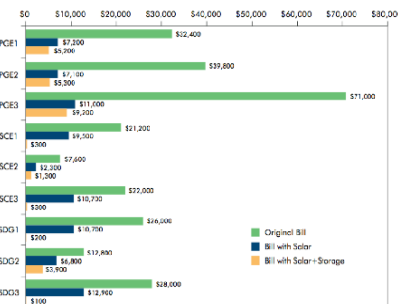


Figure 6. Annual electricity bills for MAH building common area loads after standalone solar

installation compared with solar + storage. Compares three MAH buildings of varying size in each California IOU jurisdiction

POLICY RANKINGS

Policy alternatives are ranked based on evaluation criteria, with ‘1’ indicating the highest rank.

CONCLUSION

MAHSR was established under AB 693 to provide low-income renters with access to solar PV and economic benefits associated with its installation. The CPUC and Office of Ratepayer Advocates are responsible for protecting consumers while ensuring the provision of reliable electricity service and must implement AB 693 pursuant to these missions.

Effectiveness (40%)				
Reduce energy burdens for low-income consumers	4	2	3	1
Offer sustained growth in rooftop PV for low-income communities	4	2	3	1
Minimize threats to grid reliability	3	4	2	1
Cost (30%)	4	3	2	1
Equity (30%)	4	2	3	1
Overall	3.87	2.57	2.57	1

In this role, the CPUC should recommend solar + storage as a qualifying technology under AB 693. This alternative reduces energy burdens for low-income tenants by making solar PV more accessible, offers energy cost reductions, and reduces threats to grid reliability. Further, it offers a method to address the decline of solar PV value that will occur upon TOU rate structures defaulting in 2019.

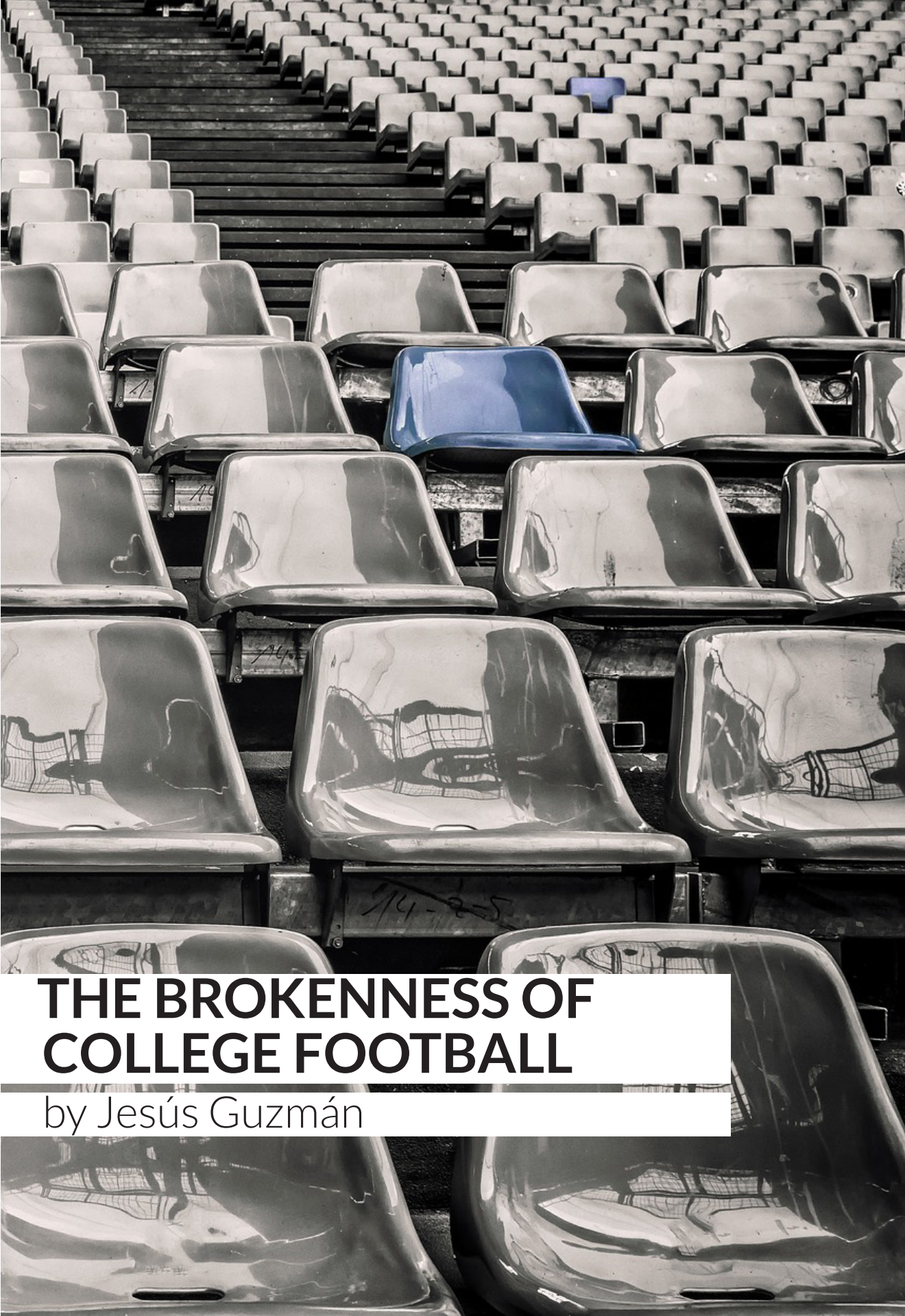
ENDNOTES

1. “Conventional” refers to fossil-based energy systems
2. “Low-Income Solar Policy Guide: A road map to successful policies and programs that are creating access to solar technology and jobs nationwide.” GridAlternatives, Vote Solar, Center for Social Inclusion, 11 Mar. 2016. Web. Apr. 2017.
3. Ahn, Eddie, Jim Grow, Dilini Lankachandra, Shana Lazerow, Peter Miller, Kent Qian, Matthew Schwartz, Maria Stamas, Tovah Trimming, and Wayne Waite. Order Instituting Rulemaking to Develop a Successor to Existing Net Energy Metering Tariffs Pursuant to Public Utilities Code Section 2827.1, and to Address Other Issues Related to Net Energy Metering. Rulemaking, no. 14-07-002. N.p.: n.p., n.d. California Public Utilities Commission. 3 Aug. 2016. Web. Feb. 2017.
4. Ibid.
5. “California Solar.” Solar Energy Industries Association, 2016. Web. 14 Apr. 2017.
6. “June 2011: California Solar Initiative 2011 Annual Program Assessment (Legislative Report).” CSI 2011 Annual Program Progress Report to Legislature. California Public Utilities Commission, 2011. Web. 29 Apr. 2017.
7. Testimony of Strela Cervas, Senate Committee on Energy, Utilities, and Communications. Public hearing on AB 693, July 13, 2015.

8. Testimony of Randall Simmrin, Senate Committee on Energy, Utilities, and Communications. Public hearing on AB 693, July 13, 2015.
9. “Low-Income Solar Policy Guide: A road map to successful policies and programs that are creating access to solar technology and jobs nationwide.” GridAlternatives, Vote Solar, Center for Social Inclusion, 11 Mar. 2016. Web. Apr. 2017.
10. AB 693 Section 1(f).
11. “What the duck curve tells us about managing a green grid.” Fact Sheet. California Independent Systems Operator. Folsom, California. 2016. Web. 27 Apr. 2017.
12. Net load is calculated by subtracting forecasted electricity production by variable generation resources from forecasted load during a given period of time.
13. “On July 13, 2015, the California Environmental Justice Alliance (CEJA), the primary sponsor of the legislation, provided testimony to the Senate Committee on Energy, Utilities, and Communications that “even with the existing renewable energy programs for low-income and disadvantaged communities, there has only been less than 1% penetration into disadvantaged communities.”
14. Ahn, Eddie, Jim Grow, Dilini Lankachandra, Shana Lazerow, Peter Miller, Kent Qian, Matthew Schwartz, Maria Stamas, Tovah Trimming, and Wayne Waite. Order Instituting Rulemaking to Develop a Successor to Existing Net Energy Metering Tariffs Pursuant to Public Utilities Code Section 2827.1, and to Address Other Issues Related to Net Energy Metering. Rulemaking, no. 14-07-002. N.p.: n.p., n.d. California Public Utilities Commission. 3 Aug. 2016. Web. Feb. 2017.
15. “Follow Up from Call.” Message to the author from Wayne Waite, Solar Plus Solutions. 8 Mar. 2017. E-mail.
16. Mullendore, Seth. “Time-of-Use Means It’s Time for Storage.” Renewable Energy World. N.p., 23 Jan. 2017. Web. 10 Mar. 2017.
17. Airth, Ben, Sachu Constantine, Lewis Milford, Seth Mullendore, Matt Schwartz, and Wayne Waite. Closing the California Clean Energy Divide. Rep. Montpelier: Clean Energy Group, 2016. Print.
18. “Low-Income Solar Policy Guide: A roadmap to successful policies and programs that are creating access to solar technology and jobs nationwide.” GridAlternatives, Vote Solar, Center for Social Inclusion, 11 Mar. 2016. Web. Apr. 2017.
19. Goals of AB 693 as outlined in Section 1 of the Bill: “(a) It is necessary to provide assistance to low-income utility customers to make sure they can afford to pay their energy bills. (b) Programs that reduce the costs of the energy utilities’ California Alternate Rates for Energy, or CARE, program can support the long-term ability of the CARE program to meet the needs of low-income customers (c) Installing qualifying solar energy systems in disadvantaged communities can provide local economic development benefits while advancing the state’s renewable energy policies and policies to reduce emissions of greenhouse gases. (d) The Greenhouse Gas

- Reduction Fund Investment Plan and Communities Revitalization Act (Chapter 4.1 (commencing with Section 39710) of Part 2 of Division 26 of the Health and Safety Code) requires that a minimum of 25 percent of the available moneys in the Greenhouse Gas Reduction Fund be allocated to projects that provide benefits to disadvantaged communities and 10 percent fund projects in disadvantaged communities. (e) It is the goal of the state to make qualifying solar energy systems more accessible to low-income and disadvantaged communities and, as in the case of the Multifamily Affordable Housing Solar Roofs Program, to install those systems in a manner that represents the geographic diversity of the state. (f) It is the goal of the state to install qualifying solar energy systems that have a generating capacity equivalent to at least 300 megawatts for the express purpose of lowering the energy bills of tenants at low-income multifamily housing.”
20. Utility allowances were not included in the discussion of cost due to the high variability in both the implementation of allowances by locality and the reception of energy savings by tenants.
 21. The costs associated with potential distribution grade upgrades is often not fully incorporated into existing cost analyses of solar PV; this cost is difficult to project.
 22. “Fact Sheet: Residential Rate Reform.” Fact Sheet. California Public Utilities Commission. San Francisco, California. Nov. 2015. Web. 6 May 2017.
 23. An alternative will be considered “ineffective” if it achieves none of the three outlined policy objectives; “minimally” effective if it achieves one of three; “somewhat” effective if it achieves two of three; and effective if the policy achieves all three objectives.
 24. Airth, Ben, Sachu Constantine, Lewis Milford, Seth Mullendore, Matt Schwartz, and Wayne Waite. Closing the California Clean Energy Divide. Rep. Montpelier: Clean Energy Group, 2016. Print.
 25. Power quality anomalies refer to events that cause loads to go offline and whose negative impacts could have otherwise been avoided with energy storage. Source: Eyer, Jim, and Garth Corey. Energy Storage for the Electricity Grid: Benefits and Market Potential Assessment Guide. Rep. no. SAND2010-0815. Albuquerque, NM: Sandia National Laboratories, 2010. Print.
 26. Ibid.
 27. The benefit associated with increased grid reliability is calculated using annual outage hours and the value of the associated unserved energy, measured in \$ per kWh. Assuming annual outage hours to be 2.5 hours per year and value of unserved energy to be \$20/kWh, we calculate: $\$20/\text{kWh} \times 2.5 \text{ hours per year} = \$50/\text{kW-year}$. Assuming constant lifecycle benefits over 10 years, we multiply the annual reliability benefit of $\$50/\text{kW-year}$ by the present worth factor of 7.17: $\$50/\text{kW-year} \times 7.17 = \$359/\text{kW}$.
 28. Eyer, Jim, and Garth Corey. Energy Storage for the Electricity Grid: Benefits and Market Potential Assessment

- Guide. Rep. no. SAND2010-0815. Albuquerque, NM: Sandia National Laboratories, 2010. Print.
29. Eyer, Jim, and Garth Corey. Energy Storage for the Electricity Grid: Benefits and Market Potential Assessment Guide. Rep. no. SAND2010-0815. Albuquerque, NM: Sandia National Laboratories, 2010. Print.
30. Ibid.
31. Airth, Ben, Sachu Constantine, Lewis Milford, Seth Mullendore, Matt Schwartz, and Wayne Waite. Closing the California Clean Energy Divide. Rep. Montpelier: Clean Energy Group, 2016. Print.
32. Eyer, Jim, and Garth Corey. Energy Storage for the Electricity Grid: Benefits and Market Potential Assessment Guide. Rep. no. SAND2010-0815. Albuquerque, NM: Sandia National Laboratories, 2010. Print.
33. Airth, Ben, Sachu Constantine, Lewis Milford, Seth Mullendore, Matt Schwartz, and Wayne Waite. Closing the California Clean Energy Divide. Rep. Montpelier: Clean Energy Group, 2016. Print.



THE BROKENNESS OF COLLEGE FOOTBALL

by Jesús Guzmán

THE BROKENNESS OF COLLEGE FOOTBALL

JESÚS GUZMÁN

Edited by: Wesley Saver, Jennifer Schulz, & Emory Wolf

College football's popularity has made for big business. As increasing eyes fall upon the sport, new evidence regarding the consequences of repetitive head trauma is raising questions about the health and safety of college football players. This paper examines the latest medical evidence linking repetitive head trauma and Chronic Traumatic Encephalopathy (CTE) in college athletes. The evidence is contrasted to the role of the National Collegiate Athletic Association (NCAA) as principal regulator of the game plus the influence of big business while tracing the history of the game and its rules from its early years to the modern day. Using a policy analysis focused on player safety, this paper finds the relationship between universities and athletes to be one warranting reform and recommends the California College Athlete Protection Act as a model to improve health and safety outcomes for college football players.

I. THE BUZZ BRAND AMONG BOYS & GIRLS

Chronic traumatic encephalopathy (CTE) may forever haunt the game of football. With so much of the attention focused on the National Football League (NFL) and its “concussion problem,” one can wrongly assume that the brain trauma suffered by football players is isolated to the professional level. A recent study published in *The Journal of the American Medical Association* is shedding new light on one of the sport’s darkest secrets. The research effort, led by neuropathologist Dr. Ann McKee and her team, found alarmingly high-numbers of CTE in the brains of deceased football players, including young college athletes. Of the 53 former college football players’ brains studied, 48 (91 percent) showed signs of CTE and 56 percent had severe forms of the disease.¹ The study also looked at the brains of 14 former high school football players—three were found to have CTE. The study used a convenience sample of athletes whose families voluntarily participated, indicating selection bias.² As such, we can expect that the

true rates of CTE will be less than indicated by the study. Nevertheless, selection bias does not preclude the sheer volume of athletes with CTE, and it does not detract from the level of serious concern society should have about the health and safety of athletes and the game.

The NFL is the most profitable and popular football league the country, but college football has long rivaled the NFL in both those categories.³ McKee’s research findings suggest the NFL and college football are experiencing a similarly disturbing reality wherein the game is permanently damaging the athletes who play it. However, there are legitimate reasons why society should place greater scrutiny on college football than the NFL—college football is a billion-dollar sport played by 19-year olds, who go uncompensated for their labor and sacrifice, while incurring the most traumatic costs. Should society not consider perverse the Ohio State University’s football team being valued at roughly \$1.5 billion dollars and yet it is the athletes’ bodies who bear the costs?⁴

The assertion that the players are adults who can make their own decisions becomes contorted in a context in which the university is an institution founded to educate young minds; yet, instead they profit from sanctioning harm on those young minds. Even for modest athletic programs, like the University of California, Berkeley (Cal), which is valued at \$220 million ranking it 37th overall, the dollar signs are larger than the general public may realize.⁵

Last year, Cal signed a 10-year deal with Under Armour worth \$86 million to outfit all 34 official club sports teams. Cal's Athletic Director, Mike Williams, explained the impetus behind the deal, "We recently offered a high-school freshman football player a scholarship, and one of our Pac-12 competitors offered [one to] an eighth-grader. Under Armour is the buzz brand among boys and girls, and it could help make a difference."⁶

Were one to strip college football of its university setting, there would be little doubt that college football is a business, and a profitable one for those competing at the highest levels. The strategy to remain competitive, and therefore lucrative, has much to do with the recruitment of talent. The appeal to a younger demographic with the hope that one day they, too, will play Cal football because it's associated with Under Armour, a brand that sells "cool", is viscerally connected to the pursuit for higher TV ratings and earnings.

The injuries we see often on television are tacitly assumed to be an inherent part of the game—a torn ACL, a broken collar-

bone, or a concussion. Not until recently has the public, and the athletes themselves, had greater information about the true risks and consequences of playing football. Dr. McKee's study elucidates the severity of the problem threatening the athletes' health and safety. But football at the professional and amateur level are distinct in an important way. Unlike the NFL, universities have the dual responsibility of educating and training both the mind and the body of a "student-athlete." The NCAA's website describes itself as, "Prioritizing academics, well-being, and fairness so college athletes can succeed on the field, in the classroom, and in life."⁷ Yet, the evidence ostensibly contradicts this claim. How can universities charged with the noble mission of educating and preparing young people for life simultaneously profit millions of dollars from a game that is harming the brains of college athletes? This article explores how public policy can improve the health and safety outcomes of college football players.

II. END TO BRUTALITY

In the early 20th century, football was responsible for an alarming number of deaths. Between 1900 and 1905, at least 45 football players died from internal injuries, broken necks, broken backs, and concussions. So many football players had been killed by the sport, primarily at the collegiate level, that several universities like Columbia University, Duke University, and Northwestern University suspended their football programs in 1905, the same year that 18 football players had died.⁵ Cal and Stanford suspended their football programs in 1905 in favor of rugby. Cal didn't resume its football program

until 1915 and Stanford resumed football in 1919.⁶ Allegedly, had it not been for President Theodore Roosevelt intervening to reform football, the game might be gone to history. The introduction of the forward pass initiated by the quarterback, which opened up the game creating space and reducing the likelihood of gang-fight like scrums at the line of scrimmage, reformed the game and put an “end to brutality,” as Roosevelt declared.^{7,8}

The reform effort was not without its detractors. Many feared the game would be unrecognizable, and even Roosevelt was concerned the reforms might “emasculate” the game⁸. Nonetheless, 1905 proved to be pivotal as public outcry grew and university presidents became increasingly disturbed by the game’s violence. That year, UC Berkeley’s President Benjamin Ide Wheeler declared unequivocally, “Football must be made over”.⁸ Looking back on history, one cannot understate just how dramatic this change was for football and the safety of the players. Deaths were nearly eliminated, injury rates profoundly reduced, and the sport grew even more popular.

The problem football currently faces is similar to the one faced by Roosevelt over a hundred years ago. The parallel lies in the severity of the health impacts suffered from playing the game. In 1905, it was a broken neck; in 2017, it is the growing reality that repetitive head trauma is behind a degenerative brain disease like CTE. The difference is that a broken neck is immediate and conspicuous, while head trauma affects the brain gradually over a period of time and away from the public eye. Neither should be acceptable. For former

football players, like Pittsburgh Steelers’ legend Mike Webster, whose thousands of traumatic head injuries contributed to his death in 2002 at the age of 50,⁹ the outcome nevertheless remains the same.

III. A CASCADE OF REPETITIVE HEAD TRAUMA AND DECLINE

The two most common critiques of the link between traumatic head injuries and long-term neurological consequences assert:

1. The evidence for the link between concussions and CTE is not sufficiently established; and
2. Concussions are not nearly prevalent enough to rise to the level of major concern so as to warrant any changes to the most popular game in the country.

In other words, if it’s not broken, don’t fix it.

CTE first came to national attention in 2005 when Dr. Bennet Omalu published a paper in the *Journal of Neurosurgery* entitled, “Chronic Traumatic Encephalopathy in a National Football Player.” His findings linked CTE, a neurodegenerative disease, with repetitive brain trauma experienced by football players (i.e. concussions). Since 2005, there have been published studies like McKee et al. that have looked at large sample sizes studying CTE in the brains of deceased players. Over the last decade, these studies have found individuals with clinically-diagnosed CTE have also had long histories of head trauma.⁹ Research published recently by Dr. Bennet Omalu claims retired NFL star

Fred McNeill became the first living player to be diagnosed with CTE. In 2012, McNeill underwent an experimental PET scan that identified signs of CTE in his brain. When McNeill died in 2015, his brain was analyzed and confirmed to have CTE.¹⁰ The findings create a rare opportunity for early diagnosis and potential treatment for disease that previously could only be diagnosed postmortem. Nonetheless, longitudinal studies that compare sport-related and non-sport related trauma are needed to better identify the causal relationship between repetitive head trauma and CTE.¹¹ There remains a paucity of research studying the causal link between concussions and CTE, but the research does make a strong argument that mild traumatic brain injuries (mTBI, i.e. concussions) is both linked and associated as a risk factor for CTE.¹² Furthermore, the evidence is definitive about traumatic head injuries having additional long-lasting neurological consequences beyond CTE.¹³ Suffice it say that the medical evidence makes a compelling argument for CTE rising to the level of being taken as a serious threat to the health of the athletes who play the game of football.

As for the prevalence of concussions that undergird the concern about the long-term health consequences of athletes, a 2003 prospective study on the cumulative effects associated with concussions in college football players revealed that roughly 6 percent reported a concussion, and 6 percent of those reported a repeat concussion that same season.¹⁴ These figures are likely underreported. A 2014 study analyzed the rates of collegiate athletes that acknowledged having experienced a concussion but did not report (12.8 percent),

and those that did not recognize having experienced a concussion but indicated concussive symptoms (18.8 percent). The reasons cited for not reporting a concussion had to do with pressure to perform and staying in the game.¹⁵ Yet, even these numbers fail to tell the whole story.

Concussions are notoriously difficult to diagnose, including reasons such as underreporting or failure to identify. There is no objective test used to diagnose concussions. Though clinical tools have improved, individuals are diagnosed based on recognizable concussive symptoms and signs. A growing recent body of literature suggests that concussive and subconcussive head impacts “set about a cascade of pathological events that accelerates decline in cognitive function...”¹⁶

A subconcussion is defined as “a cranial impact that does not result in known or diagnosed concussion on clinical grounds.”¹⁷ In other words, subconcussions are mild enough to fly under the radar. The increased risk factor surrounding head trauma includes both the severity and the quantity of head impacts. But as concussions are already difficult to diagnose, subconcussions only further add to the concern surrounding the long-term effects of head trauma.

Recent biophysics studies have found that young athletes can sustain anywhere from several hundred to over a thousand head impacts in a single season without showing concussion symptoms. Such is the case in new research findings from David Camarillo at Stanford, whose study included a Stanford football player who sustained 62 hits to the head in a single

game with an average G-force of 25.8—roughly equivalent to crashing a car into a wall at 30 m.p.h.¹⁸ Additionally, recent autopsies of athletes in contact sports with no known history of concussions, but who nonetheless demonstrated signs of CTE, have shown that accumulated sub-concussions are an associated risk factor of CTE.¹⁹ Reinforcing this point, a study this year of NCAA football players found that exposure to high-levels of repetitive head impacts saw changes in cerebral blood-flow, brain connectivity, and likely presence of microhemorrhages. This evidence suggests that even a single season of collegiate football can lead to pathophysiological changes in the brain of athletes despite not demonstrating concussive symptoms.²⁰ The emerging evidence indicates that concussions alone may not be singularly responsible. Instead, repetitive head trauma is likely the most significant factor increasing the risk of neurological injury and disease in athletes.²¹ Moreover, CTE is not and should not be the primary focus or only concern stemming from head trauma. Having a human brain repeatedly physically pounded leads to pathophysiological changes in the brain. Whether or not CTE results from the head trauma, does not change the fact that the brain is structurally affected by these traumatic brain injuries suffered during the course of playing a contact sport like college football.

IV. THE NCAA & THE PRESENT STATE OF THE GAME

What has been the role of public policy thus far? Who are the major actors in college football? What policies are currently in play? The National Collegiate Athletic

Association (NCAA) is a key part of the college athletics landscape. Congress and state legislatures, in large part, have ceded decision-making about amateur sports to the NCAA. It should be noted that this is not a legal or binding arrangement. Perhaps not surprisingly, health and safety were part of the of the NCAA's ascendance to power – but arguably for all of the wrong reasons. As celebrated historian Taylor Branch has written, the NCAA devised the term “student-athlete” as a strategy to fight against worker’s compensation claims by injured football players after lawsuits had been brought forth.²² They hoped “student-athlete” would “conjure the nobility of amateurism” and avoid any claims of collegiate football players as employees of the university who suffered “work-related accidents”, as was the case when Ray Dennison died from a head injury suffered while playing for the Fort Lewis A&M football team in the 1950s.

The NCAA's early path to consolidating power also rested on coercion of universities and colleges forcing them to succumb to its manufactured authority. As the story goes, the 1950s also saw the University of Pennsylvania (Penn) and Notre Dame contest the NCAA's authority to punish them for breaking contract. Penn and Notre Dame argued the NCAA was violating their right to decide for themselves the televising of their own home-games. But it was not long after that, for political reasons, the president of Penn folded. Soon after, so did Notre Dame. In taming two distinguished and powerful universities, the NCAA publicly demonstrated its power to punish and regulate universities.²³ The key lesson drawn for universities and the country appeared to be that

the NCAA was to be the primary arbiter of collegiate athletics. But for historical observers the takeaways from the 1950s era of the NCAA were different from that of universities and can be surmised twofold: the NCAA's authority is not statutory, but manufactured and precarious; and the NCAA has a history of being slow to adopt policies that could address football players' health and safety.

In the last twenty-five years, the NCAA has implemented a bevy of policies and taken a series of steps to protect student-athletes. For example, the NCAA provided funding for concussion research in the late 1990s. The publication of that research in 2003, though, did not lead to any substantive changes by the NCAA at the time. From 2004 to 2009, the NCAA's Injury Surveillance System tracked the number of concussions, finding 29,255 suffered by collegiate athletes and 16,277 suffered by football players alone. Again, these numbers did not create any real changes to the NCAA Handbook or rules. Finally, in 2010, the NCAA formed a Concussion Working Group dedicated to studying and recommending policies about concussions. However, when David Klossner, the NCAA Director of Health and Safety at the time, was asked if pending legislation would go farther than their own proposed guidelines, he responded by saying, "Well since we don't currently require anything, all steps are higher than ours."²⁴ That year, the NCAA proposed and approved a concussion management policy that requires each member institution to create either own concussion management plan. However, court documents describe Chris Stroble, the NCAA's Director of Enforcement, stating that "the

legislation was specifically written to require institutions to have a plan and describe what minimum components had to be part of the plan—not about enforcing whether or not they were following their plan—except for those isolated circumstances of systemic or blatant violations."²⁵ To the NCAA's credit, it established baseline testing that tracks and monitors concussions, which many experts believe should markedly improve health outcomes for athletes. However, the NCAA implemented these changes as a result of a settlement after athletes sued the NCAA related to concerns over head injuries.²⁶

There is sufficient evidence to question the effectiveness of the NCAA as the principal oversight body to improve the health and safety outcomes of college football players. The NCAA, itself, admitted as much in the early 1980s. After a flurry of scandals embroiled college football during the decade, Congress took notice of the NCAA's struggle "to gain control over what seemed to be a downward spiral of public trust in the integrity of college athletics" as it had proven itself to be "incapable of addressing major issues of public concern."²⁷ To say the least, the NCAA's authority as regulator of collegiate sports has a long history of dubiety.

Arguably, though, what has long been at issue is the profit-making in college sports by essentially everyone except the athletes themselves. A quick Google search of "NCAA" and "Revenue" will produce a figure that nears \$1 billion. Most of that revenue comes from media rights sold to television networks to broadcast Men's Division I Basketball. As for football, the Bowl Championship Series (BCS), a sep-

arate entity, orchestrates the college football playoffs and bowl series, including the broadcasting agreements. The latest television deal with ESPN is worth \$7.3 billion for 12 years for the media rights to broadcast each of its associated six bowl games.²⁸ Revenue is then distributed amongst the member universities and colleges. What is one of the consequences from all the high-price tag television exposure? A recent Wall Street Journal article reported that the Ohio State University football program is valued at roughly \$1.5 billion; the Universities of Texas and Oklahoma are also worth over one billion.²⁹ When the Texas Congress drafted its constitution and established the University of Texas at Austin declaring, "It shall be the duty of Congress, as soon as circumstances will permit, to provide, by law, a general system of education," it did not envision its "general system of education" would play second fiddle to a football team.³⁰

With so much money generated by the NCAA and universities, how can one reasonably expect them to be advocates for the health and well being of college football players? College football players are offered one year scholarships. If injured, they stand the possibility of not having their scholarships renewed and simply being "cut" from the team.³¹ The entrenchment of vested stakeholders is unshakably strong and, as the Knight Commission report stated, they are "incapable of making the necessary changes."³²

Any attempts by players to change their playing conditions is a daunting uphill battle against powerful and well-resourced football programs like an Ohio State. The inequality of power between a football

player on a tentative scholarship, vulnerable to the whims of a coach, especially when venerated coaches like Nick Saban at the University of Alabama are earning \$11.125 million annually, should give the public pause to think about how powerless players are to complain, much less seek reform, in such an environment.³³

The current equilibrium has long bristled the sensibilities of observers and participants who have sought reform but thus far have come short of actualization meaningful change. For example, in 2015, the National Labor Relations Board (NLRB) declined to hear a case brought forth by football players at Northwestern University seeking collective bargaining recognition for the explicit purpose of obtaining workplace injury protections. This announcement came after the Regional Director for the NLRB had approved their case in a historic decision arguing that the athletes should be considered employees of the organization and were therefore entitled to the same labor rights as other American workers.³⁴ The NLRB declined the case arguing that to do so differently "would not promote labor stability."³⁵ The Board did not dispute the merits of the athletes' claims nor of the NLRB Regional Director Peter Ohr who heard the case. One can read the implicit reasoning in the NLRB's decision as being concerned with how the status quo would be significantly altered and, instead, suggested that a different course of action, other than this particular case, may be warranted. Following suit, former Secretary of Education Arne Duncan joined the Knight Commission this year with the expectation of bringing reform to collegiate athletics and cited his interest of bringing

“national initiatives addressing the health and safety of players.”³⁶ Secretary Duncan, a high-profile public official, is symbolic of the growing interest in addressing the issues in collegiate athletics, in particular, health and safety. The litany of lawsuits, scandals, and reform initiatives like that of Secretary Duncan suggest that the tides continue to swell towards shifting an untenable status quo. Though there exist strong undercurrents and actors behind the scenes attempting to change college football, change will be hard to come by in Congress. Attempting to legislate reform after so many years of eluding the issue is likely to remain very low.

V. RULES OF THE GAME

Society has an intrinsic interest in ensuring that the institutions dedicated to educating and training its future citizenry do so in a way that protects the health and safety of its future workforce. The health and safety issues experienced by college football players rise to the level of warranting public scrutiny. In promoting a policy intervention, a reasonable policy objective is one that improves the health and safety outcomes of collegiate football athletes. Next, this article outlines the criteria used to analyze the merits of each policy. Though there are numerous criteria such as implementation and political feasibility worth considering, this criteria takes a narrower approach—focusing on effectiveness and equity, both of which are student-centric in an effort to better model how universities may choose to design their own health and safety policies with respect to their football programs. First, an effective policy would be one that measurably improves upon the health and

safety outcomes currently experienced by NCAA college football players. A key measurable health outcome that outfits this criterion would be head trauma. Second, an equitable policy would increase the autonomy of college football players to speak for themselves regarding their playing conditions. The NFL Players Association, a union, exists to protect the rights and interests of professional football players. College football does not have a comparable organization or vehicle by which to effectuate change in their arena. Promoting equity would increase the likelihood that a policy outcome would be better aligned with the interests and welfare of college athletes. Political feasibility is not considered explicitly, but it should be noted that political momentum has been building in response to greater consumer awareness about concussions and CTE.

VI. CALLING THE NEXT PLAY

There are several recent state legislative actions and research findings that suggest promising opportunities to improve the health and safety of college football players beyond NCAA reforms or Congressional action. This article focuses on the following areas and their respective objectives as they represent the latest research, best-practices, and most recent state legislative efforts attempting to reform college football:

1. Redesigning Game Rules
 - Decrease head trauma by regulating practice
 - Decrease head trauma by changing or eliminating special teams plays

2. California's Student-Athlete Bill of Rights

- Increase right to medical services and scholarship in the event of an injury

3. California's Athlete Protection Act

- Increase oversight power to regulate and enforce health and safety conditions

1. REDESIGNING GAME RULES & PLAY

A 2015 study published in the *Journal of Neurosurgery* found significant differences in the absolute quantity and average severity of head impacts depending on the type of equipment used during practice.³⁷ Helmet-only, shells, and full-pad practices all respectively differ from each other in their measured outcomes for head trauma. Helmet-only proved to have the lowest average head impact severity and the lowest number of cumulative hits, shells was second-best, and full-pads had the highest number of hits and severity during practice. Actual games played had the highest figures in all categories. The type of equipment used by an athlete serves as a reasonable indicator for the intensity of a practice with greater use of equipment representing greater intensity. Subsequently, when researchers published this study in 2015, they reviewed the NCAA's rulebook on practice and found no specific requirements. Instead, the NCAA had a set of suggested guidelines advising teams on how to manage their practices. Practice-types are at the discretion of each athletic program. Since then, the NCAA has put forward additional guidelines recommending an end to two-a-day practices, reducing tackling, and limiting the number of full-contact practices.^{38,39} But when Brian Hainline, the NCAA's Chief Med-

ical Officer, was asked if these voluntary rules would be followed by everyone, he responded, "Is everyone following them? I don't know with certainty. But I'm pretty sure they are."⁴⁰

The practice-type study argues that "these findings suggest that regulation of practice equipment could be a fair and effective way to substantially reduce subconcussive head impact in thousands of collegiate football players."⁴¹ The authors' findings offer evidence on the benefits of regulating practice-type in an effort to reduce head injuries. As a policy, the intervention could be moderately effective based on the evidence, but a policy would require the NCAA or a legislative body to regulate and, most importantly, enforce a safer practice-type regiment. By NCAA's own admission, those prospects seem dubious. Furthermore, a practice-type policy would have greater effectiveness with the inclusion of a whistleblower provision that could protect athletes or staff who come forward when programs fail to comply with practice-type regulations. A whistleblower clause would be an equitable measure for athletes who would be further empowered to report violations while protecting them from retaliation. As a result, athletes could take a larger role in ensuring safer playing conditions for themselves on the field.

A 2016 epidemiological study published in the *American Journal of Sports Medicine* analyzed the effects of activity and play type on concussion rates in college football and found that concussion rates were significantly higher during special teams plays than offensive or defensive plays.⁴² These findings coincide with the popu-

lar description of the special teams play commonly known as the “most dangerous play in sports.”⁴³ The kickoff and punt return are special plays in football because they make up a small percentage of the game, but they are one of the few plays designed to create head-on collisions between athletes running at full-speed. There has been movement on changing the rules of the game, at least, when it comes to possibly eliminating the kickoff. Current head coach of the University of Miami Mark Richt has stated publicly, “You sit there and witness what happens on a kickoff. It’s a violent play. Guys are running full-speed and you’ve got guys that are young and strong and brave and no one’s backing down.” Richt goes on to say, “I’ll be honest, I’m OK without a kickoff... I think that’s a play that I can live without.”⁴⁴

Though the NFL is not considering eliminating the kickoff, it has made recent rule changes to the play in attempt to lessen the likelihood of athletes returning a kickoff. The rule change move up the yard-line for the kickoff increasing the probability of a touchback therefore nullifying any chance of returning the ball into full-speed collisions.⁴⁵ At the college level, the American Football Coaches Association’s (AFCA) board of trustees and the NCAA Division I Football Oversight Committee have both been considering eliminating the kickoff. The push towards the elimination of the kickoff would be a highly-effective way of reducing head injuries suffered during the “most dangerous play in sports.” Both the regulation of practice-types and the special team play would be highly effective interventions in improving the health and safety outcomes

of athletes by improving on the status quo. However, the regulations are paternalistic and imposed from above without providing a more equitable environment for collegiate athletes to change their own playing conditions.

2. CALIFORNIA’S STUDENT-ATHLETE BILL OF RIGHTS

California’s 2012 law regulates universities that operate athletic programs that receive more than \$10 million annually from media rights for broadcasting intercollegiate sports. In California, the law applies to the University of California, Berkeley, Stanford University, the University of California, Los Angeles, and the University of Southern California. These four universities are each responsible for providing three basic protections for student-athletes:

1. Pay for health-insurance premiums for low-income athletes,
2. Pay for medical treatment or insurance deductibles for any injury a student-athlete suffers during course of athletic program activities, and
3. Requires universities to offer an equivalent scholarship to a student-athlete who suffers an incapacitating injury or illness if the athletic program does not renew the athletic scholarship.^{47,48}

Currently, the status quo does not guarantee these protections in the majority of states and college football programs. According to Donna Lopiano, co-author of *Unwinding Madness: What Went Wrong with College Sports and How to Fix It*, “Contrary to public perception, while the NCAA provides a catastrophic injury

policy, schools do not provide basic athletic injury insurance for their athletes.”⁴⁹ According to the NCAA’s website, the Catastrophic Insurance Program comes with a \$90,000 deductible that must be paid first before an injured student-athlete can claim any benefits.

The law has been heralded as transformational because of the respite offered to a group of sympathetic individuals. However, the law comes up short in proactively preventing health and safety injuries, which severely limits its effectiveness as an intervention. The law provides restitution after the fact to an injured athlete in terms of medical treatment, insurance premiums and deductibles, and an equivalent scholarship. Furthermore, the law’s limitation stems from its lack of inclusion of long-term health-care for football players that suffer repetitive head trauma and may be in need of medical services later in life. For example, a lawsuit filed this year against the NCAA by a group of former college football players states that many of them “suffer from symptoms indicative of long-term brain and neurocognitive injuries.” There exists a need to extend insurance coverage years beyond what the California Student-Athlete Bill of Rights currently offers. As such, the aforementioned limitations of the bill curb its effectiveness as a policy intervention. The law, however, does offer a high degree of equity. Student-athletes are guaranteed certain protections like medical care and their scholarships which considerably improve on a status quo that left these decisions as discretionary to each institution. The policy standardizes and codifies a right to each student-athlete that their injury will not affect their educational pursuits, there-

by curbing the power of an athletic program to discard an injured athlete.

3. CALIFORNIA’S COLLEGE ATHLETE PROTECTION ACT

Finally, this article examines a proposed bill in California: College Athlete Protection Act of 2017. The primary thrust of the bill would establish a commission (the College Athlete Protection Commission) charged with ensuring the protection of college athletes, placing particular emphasis on implementing best practices in remedying serious injuries protecting against CTE. The Governor and legislative leaders would appoint nine members to the commission, including the membership requirement of a specialist in brain trauma and two collegiate athletes. Furthermore, the commission would have the following powers:

1. The ability to penalize people in athletic programs that violate rules by way of civil fines and employment bans,
2. Provides whistleblower protections to athletes or other students who report violations,
3. Makes college employees mandated reporters of any reasonable violations,
4. Subpoena power, and
5. The right to carry out inspections to ensure rules compliance

The bill serves as a useful example of what a public regulatory body might look like. The bill explicitly delineates the responsibility of the commission to address the concerns surrounding CTE and tasks it with finding comprehensive best practice solutions. There is no equivocating in

terms of health and safety. The commission is assembled with the requisite powers to advocate and implement an agenda that could effectively address player health concerns like repetitive head trauma. The provision that stipulates a head trauma specialist must be on the commission means the inclusion of relevant expertise on the important issue of health and safety at hand. Furthermore, the commission's subpoena power distinguishes it from the NCAA which lacks such power. Subpoena power could bolster an investigation and compliance which would further increase the likelihood of effectively improving health and safety outcomes for collegiate athletes.

In terms of equity, the commission stipulates the inclusion of one female and one male former college athlete as members of the commission. The inclusion of college athletes on the commission serves two key purposes: empowering athletes to advocate for themselves and leveraging their first-hand experiences in collegiate athletics into the regulatory process. Secondly, the commission encourages athletes to come forward and report violations in an effort to compliance by athletics programs. Athletes, staff, and others can report anonymously while being protected against retaliation by the programs. The policy's features distribute power more equitably among athletes and athletic programs by changing the equilibrium point. As was mentioned earlier by the NCAA's Chief Medical Officer who expressed uncertainty as to whether practice guidelines were being followed by programs, there is little doubt that the NCAA lacks the enforcement mechanisms, and likely the will, to effectively enforce policy, in this

case practice-type guidelines, that could clearly improve the welfare of athletes. Inversely, the proposed College Athlete Protection commission could prove to be a reasonable alternative regulatory body with the proper powers and stakeholders involved in the decision-making to see through necessary changes and enforcement. The bill's equity features (whistleblower protections and collegiate athlete participation on the commission) are a strong foundation that synergistically build the commission's potential to be a highly effective model (subpoena power, right to inspections, and levy penalties) to regulate and enforce policy, while simultaneously being divorced from the entrenched pecuniary interests hitherto thwarting the NCAA and college football programs.

Table I. Analyzing Alternatives

<i>Criteria / Policy</i>	<i>Effectiveness</i>	<i>Equity</i>
Redesigning	High	Low
CA Stu-	Low	High
CA Athlete Protection Act	High	High

VII. THE RED ZONE

A policy intervention based on an effectiveness and equity criteria and modeled on California's proposed College Athlete Protection Act would likely have the greatest impact on the health and safety of college football players. The other alternatives presented, however, are not mutually exclusive. It is conceivable that

an empowered commission could adopt each of the alternative regulations (e.g., redesigned game rules) as well as those in the Student-Bill of Rights. Arguably, the College Athlete Protection Act would be the most expansive approach to improving player safety. There are numerous political feasibility concerns not included in this analysis that affect the prospects of an intervention being adopted. However, recent policy and litigation trends suggest greater attention is being placed on player safety creating a climate conducive for reform.

The NCAA appears to believe, evidenced by its behavior, that society will ignore the commercialization of college sports in exchange for educating student-athletes. The bevy of lawsuits, scandals, a history of failed player safety policies, entrenched pecuniary interests to the tune of billions of dollar, and the spectre of CTE and permanently damaged bodies should provide enough evidence to dispute any legitimate claim that the NCAA is the best available option to regulating collegiate sports in the face of other viable alternatives. In her fall semester update announcement to the university, UC Berkeley Chancellor Carol T. Christ wrote that she believes “athletic sports have an important role at Berkeley”. Indeed, Cal and Stanford have one of the richest traditions in collegiate athletics in the “Big Game” stretching back to over a century of competition. Over the course of that century, college football has been called upon by the public to evolve as a sport - often in pursuit of greater player safety. Also during that span of time, the amateur nature of football has been lost in the midst of lucrative television deals while newly exposed threats to player health have surfaced. University presidents must work with

policymakers to regain ownership of their institutions from the athletic directors that have often commandeered college campuses lured by the pursuit of greener financial pastures in college football. University presidents and state legislators must end the ignoble arms race in which institutions of higher education feel compelled to spend millions of dollars on lavish stadiums and high-profile coaches to compete with the likes of Texas or Ohio State. College football may never again be the amateur sport it once was, but policymakers can restore some semblance of fairness and dignity to the game by altering the status quo equilibrium to be more player centric with safety being paramount. At the heart of the matter, universities and state governments must resume the traditional mission of higher education that has always been expected of them.

ENDNOTES

1. Breslow, Jason M. “The NFL’s Concussion Problem Still Has Not Gone Away”. PBS Frontline, 19 Sept. 2014. <https://www.pbs.org/wgbh/frontline/article/the-nfls-concussion-problem-still-has-not-gone-away/>
2. Ban, Vin Shen, Christopher J. Madden, Julian E. Bailes, H. Hunt Batjer, and Russell R. Lonser. (2016) “The science and questions surrounding chronic traumatic encephalopathy.” *Neurosurgical Focus*, vol. 40, no. 4.
3. Tracy, Marc and Tim Rohen. “What Made College Football More Like the Pros? \$7.3 Billion, for a Start.” *New York Times*, 30 Dec 2014.
4. Beaton, Andrew. “How Much is Your College Football Team Worth?” *Wall Street Journal*, 21 Sept. 2017.
5. Ibid.

6. Rovell, Darren. "California-Berkeley, Under Armour Reach 10-Year Deal". ESPN, 22 Apr. 2016, http://www.espn.com/college-sports/story/_/id/15304410/california-berkeley-ar-mour-agree-10-year-deal.
7. "What is the NCAA?" National Collegiate Athletic Association, n.d., <https://www.ncaa.org/sites/default/files/WhatIsNCAA.pdf>.
8. Scott, Sam. "When Rugby Ruled". Stanford Magazine, 27 Oct 2017.
9. Tator, Charles H. "Chronic traumatic encephalopathy: How serious a sports problem is it?" *British Journal of Sports Medicine*, vol. 48, 2014, pp. 81-83.
10. Kuonang, Nadia. "Ex-NFL Player confirmed as 1st case of CTE in living patient." CNN. 16 Nov. 2017. <http://www.cnn.com/2017/11/16/health/cte-confirmed-in-first-living-person-bn/index.html>
11. Maroon, Joseph C., Robert Winkelman, Jeffery Bost, Austin Amos, Christina Mathyssek, Vincent Miele. "Chronic Traumatic Encephalopathy in Contact Sports: A Systematic Review of All Reported Pathological Cases." *PLoS ONE*, vol. 10, no. 2, 2015.
12. Abreu, Marcos A., Fred J. Cromartie, and Brandon D. Spradley, (2016). "Chronic Traumatic Encephalopathy (CTE) and Former National Football League Player Suicides." *Sports Journal*, vol. 19, 2016.
13. Ban, Vin Shen, Christopher J. Madden, Julian E. Bailes, H. Hunt Batjer, and Russell R. Lonser. (2016) "The science and questions surrounding chronic traumatic encephalopathy." *Neurosurgical Focus*, vol. 40, no. 4.
14. Talavage, Thomas, Eric A. Nauman, Eval L. Breedlove, Umit Yoruk, Anne E. Dye, Katherine E. Morigaki, Henry Feuer, and Larry J. Leverenz. (2014) "Functionally-detecting cognitive impairment in high school football players without clinically-diagnosed concussion." *Journal of Neurotrauma*, vol. 31, no. 4, 2014, pp. 327-338.
15. Gilbert, Frances C, "Concussion Reporting Rates at the Conclusion of a Collegiate Athletic Career." (2014). Georgia Southern University Electronic Theses and Dissertations, no. 1085.
16. Broglio, Steven P., James T. Eckner, H. L. Paulson, and J.S. Kutcher. "Cognitive Decline and Aging: The Role of Concussive and Subconcussive Impact." *Exercise and Sports Sciences Reviews*, vol. 40, no. 3, 2012, pp. 138-144.
17. Bailes, Julian E., Anthony L. Petraglia, Bennet I. Omalu, Eric Nauman, Thomas Talavage. "Role of subconcussion in repetitive mild traumatic brain injury". *The Journal of Neurosurgery*, vol. 119, no. 5, 2013, pp. 1235-1245.
18. Borden, Sam, Mika Grondahl, and Joe Ward. "What Happened Within This Player's Skull." *New York Times*, 9 Jan. 2017.
19. Bailes, Petraglia, Omalu, Nauman, and Talavage. "Role of subconcussion in repetitive mild traumatic brain injury."
20. Slobounov, Semyon M., Alexa Walter, Hans C. Breiter, David C. Zhu, Xiaoxiao Bai, Tim Bream, Peter Seidenberg, Xianglun Mao, Brian Johnson, and Thomas M. Talavage. "The

- effect of repetitive subconcussive collisions on brain integrity in collegiate football players over a single football season: A multi-modal neuroimaging study.” *NeuroImage: Clinical*, vol. 14, 2017, pp. 708-718.
21. Guskiewicz, Kevin M., Michael McCrea, Stephen W. Marshall, et. al. “Cumulative Effects Associated with Recurrent Concussion in Collegiate Football Players: The NCAA Concussion Study.” *Journal of the American Medical Association*, vol. 290, no. 19, 2003, pp. 2549-55.
 22. Branch, Taylor. “The Shame of College Sports.” *The Atlantic*. October 2011.
 23. *Ibid.*
 24. Waldron, Travis. “The NCAA’s history with concussions: a timeline.” *ThinkProgress*, 23 Jul. 2013, <https://thinkprogress.org/the-ncaas-history-with-concussions-a-timeline-530a8c5af0df/>.
 25. *Ibid.*
 26. Strauss, Ben. “N.C.A.A. Deal Revamps Head-Injury Care.” *New York Times*, 20 Jul. 2014.
 27. Schindler, Steven. “Case 65. Balancing the Power in College Sports: The Knight Commission on Intercollegiate Athletics.” John S. and James L. Knight Foundation. 1989.
 28. Humes, Miked. “Press Release: ESPN Reaches 12-Year Agreement For New College Football Playoff.” *ESPN Media Zone*, 21 Nov. 2012, <http://espnmediazone.com/us/press-releases/2012/11/espn-reaches-12-year-agreement-for-new-college-football-playoff/>
 29. Beaton, Andrew. “How Much Is Your College Football Team Worth?” *Wall Street Journal*, 21 Sept. 2017.
 30. Constitution of Republic of Texas.
 31. Diehl, Erika A. “What’s all the headache: Reform needed to cope with the effects of concussions in football.” *Journal of Law and Health*, vol. 23, no. 1, 2010, pp. 83-124.
 32. Schindler, Steven. “Case 65. Balancing the Power in College Sports: The Knight Commission on Intercollegiate Athletics.” John S. and James L. Knight Foundation. 1989.
 33. Greenstein, Teddy. “Nick Saban’s Obscene New Salary Blurs the Line Between College and Pros.” *Chicago Tribune*, 2 May 2017.
 34. Strauss, Ben. “N.L.R.B. Rejects Northwestern Football Players’ Union Bid.” *New York Times*, 17 Aug. 2015.
 35. “Board Unanimously Decided to Decline Jurisdiction in Northwestern Case.” *National Labor Relations Board*, 17 Aug. 2015.
 36. Brady, Erik. “To Arne Duncan, winning can’t be the only thing in sports.” *USA TODAY*, 27 Apr. 2017 .
 37. Reynolds, Bryson B., James Patrie, Erich J. Henry, Howard P. Goodkin, Donna K. Broshek, Max Wintermark, and T. Jason Druzgel. “Practice Type Effects on Head Impact in Collegiate Football.” *Journal of Neurosurgery*, vol. 124, 2015, pp. 501-10.
 38. Solomon, Jon. “NCAA recommends ending two-a-day football practices and reducing tackling.” *CBSSports*, 27 Jan. 2017, <https://www.cbssports.com/college-football/news/ncaa-recommends-ending-two-a-day-football-practices-and-reducing-tackling/>.
 39. Baker, Max B. and Jeff Caplan. “Foot-

- ball players file concussion lawsuit against NCAA, Big 12.” Star-Telegram, 20 Jan. 2017. <http://www.star-telegram.com/news/local/community/fort-worth/article127834704.html>.
40. Strachan, Maxwell. “Long-Sought NCAA Football Practice Legislation Finally Within Sight.” Huffington Post, 10 Aug. 2015, https://www.huffingtonpost.com/entry/ncaa-football-practice-rules_us_55c8bab0e4b0f1cbf1e59021.
 41. Reynolds, Patrie, Henry, Goodkin, Broshek, Wintermark, and Druzgel. “Practice Type Effects on Head Impact in Collegiate Football.”
 42. Houck, Zachary, Breton Asken, Russell Bauer, Jason Pothast, Charlie Michaudet, and James Clugston. “Epidemiology of Sport-Related Concussion in an NCAA Division I Football Bowl Subdivision Sample” *The American Journal of Sports Medicine*, vol. 44, no. 9, 2016, pp. 2269-2275.
 43. Garafalo, Mike. “The most dangerous play in sports: Violent collisions cause rise in neck injuries on kickoff returns.” NJ.com, 18 Oct. 2010, http://www.nj.com/giants/index.ssf/2007/10/ledger_the_most_dangerous_play.html.
 44. Waddell, Tyler. “Former UGA coach Mark Richt in favor of eliminating kickoffs.” Saturday Down South, 2016, <https://www.saturdaydownsouth.com/georgia-football/former-uga-coach-mark-richt-in-favor-of-eliminating-kickoffs/>.
 45. Sherman, Rodger. “The NFL should stop messing around and just get rid of kickoffs.” SBNation, 12 Apr. 2016, <https://www.sbnation.com/2016/4/12/11340484/nfl-rule-changes-touchbacks-eliminate-kickoffs-player-safety>.
 46. DiNitto, Marcus. “Will kickoffs in college football go the way of the dinosaur?” Sporting News, 18 Jul. 2016, <http://www.sportingnews.com/ncaa-football/news/college-football-kickoff-rule-change-ncaa-committee-bob-bowlsby/1i6mwf4ap1m-271rh4mx37d2ykb>.
 47. California. Senate. Senate Bill No. 1525. SB-1525 Postsecondary education: Student Athlete Bill of Rights. 2012. California Legislative Information. Web.
 48. Winters, Michelle A. (2014) “In Sickness And In Health: How California’s Student Athlete Bill of Rights Protects Against the Uncertain Future of Injured Players.” *Marquette Sports Law Review*, vol. 24, no. 1, 2013.
 49. Engel, Carrie, and Taylor Kelly. “Unwinding Madness: Experts Break Down Key Issues Facing the NCAA Today.” Brookings Institute, 16 Mar. 2017. <?> Baker, Max B. and Jeff Caplan. “Football players file concussion lawsuit against NCAA, Big 12.” Star-Telegram, 20 Jan. 2017. <http://www.star-telegram.com/news/local/community/fort-worth/article127834704.html>.



ENTERPRISE DEVELOPMENT: A DEEPER UNDERSTANDING

by Sanghamitra W. Mukherjee

ENTERPRISE DEVELOPMENT: A DEEPER UNDERSTANDING

Sanghamitra W.
Mukherjee

Edited by: James Hawkins,
Jonathan Palisoc & Randall Tran

Building on the success of the Savings Groups, SaveAct has introduced Enterprise Focus Groups which enable group members to find economically sound ways of re-investing their savings. This paper aims to understand if the Enterprise Development Project is meeting its targeted objectives. It discusses the factors that affect the ability of members to earn higher incomes from enterprise and run successful enterprises. It also delves into a few key problems identified and suggests recommendations.

1. INTRODUCTION

Agricultural farmers in South Africa are particularly susceptible to idiosyncratic shocks like droughts, arid weather conditions, temperature fluctuations, and agricultural pests that often curtail production and cause sudden drops in income levels. Access to savings facilities help these farmers accumulate capital and induces induces less risk-averse behavior.¹

Initiated in 2005, the SaveAct reaches into the most remote parts of South Africa, building the financial capability of individuals to manage their own financial services, meet consumption needs, and invest in sustainable livelihoods. The Department of Agriculture, South Africa, and FinMark trust have cited the SaveAct model as being successful in empowering members through savings and enterprise development.²

1.1. SAVINGS AND CREDIT GROUPS (SCGS)

In 2008, SaveAct facilitated the establishment of SCGs in rural communities across Eastern Cape and KwaZulu Natal. In SaveAct's Savings and Credit Groups

(SCGs), groups of 15 to 25 people, usually women, meet monthly to contribute to the savings which they refer to as buying shares. Loans are given once the reason for the loan and the loan amount are recorded. The loans are taken from the collective savings. Loans accrue 10% interest of the original amount each month. At the end of an annual cycle, the savings, with accumulated interest and fees, called "share-outs" are distributed among the SCG members. The SaveAct program now has over 60,000 members, saving R290 million (~USD 22.6 million) each year in 3,019 groups.³

1.2. ENTERPRISE FOCUS GROUPS (EFGS)

Building on the success of the Savings Groups, SaveAct has introduced Enterprise Focus Groups, which enable group members to alleviate poverty and improve standards of living by encouraging entrepreneurial activities through trainings. The program has six agricultural modules in accordance with the most popular crops and livestock in rural KwaZulu Natal and the Eastern Cape. The trainings aim to develop self-motivated, business-minded people with entrepreneurial aspirations.

This article aims to examine whether the Enterprise Development Project is meeting its targeted objectives. It discusses the factors that affect the ability of members to develop enterprises. It looks into the differential effect of the project on savings group and non-savings group members. It also delves into a few key problems identified and suggests recommendations.

2. EXPERIMENTAL DESIGN

2.1. METHODOLOGY

Study areas were selected based on the presence of pre-existing savings groups, and the existence of members who were potential entrepreneurs or enterprise developers. Of the active enterprise groups, a sample of 20 Enterprise Focus Groups were chosen to conduct the study. Groups were selected based on the duration for which they had been active. Mature enterprises provide better data points to understand investment patterns, returns, and challenges, so recently formed Enterprise Focus Groups were not considered. Within the selected groups, a random sample of about 7-8 enterprise members were chosen for the interviews. Geographic clusters of Enterprise Focus Groups members who form part of the population were identified and included in the sample. A method of cluster sampling was chosen to maximize efficiency and minimize costs given the timelines of the study and the vast geographic area the population was spread across. The data was collected over a span of 3 weeks with the help of two enumerators and four Enterprise Development Officers. The overall sample size for the study was 103 enterprise members and 175 enterprises. Missing observations

were deleted from the entire database (~30% of all data points) to improve accuracy of reporting. All statistical tests were 2-tailed.

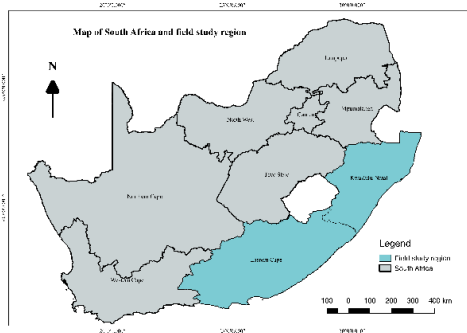


Figure1: Map of South Africa and Field Study Region

2.2. SUMMARY STATISTICS OF SAMPLE

The samples surveyed were almost equally split between the Zulu, Xhosa, and Sotho communities. The Enterprise Focus Group members were primarily women with only 20% of the surveyed sample being male. The average age of Enterprise Focus Group members was 54, with 64% of the members being above 60 years of age. The household facilities varied by region. The average household was made of mud, used wood as a source of cooking energy/fuel and had a pit latrine on-site.



Table: Description of variables used in the study	
Variable and proxies	Description and Unit
Income from Enterprise	Log of average income earned in good and bad months in the past year (In ZAR)
Enterprise Success	Proxy for ability to sell output in market (1 if sells substantial amount and 0 if for self consumption)
Zulu	Language spoken in Zulu (1 if speaks Zulu and 0 otherwise)
Xhosa	Language spoken in Xhosa (1 if speaks Xhosa and 0 otherwise)
Sotho	Language spoken in Sotho (1 if speaks Sotho and 0 otherwise)
Gender	Gender of EFG member (1 if male and 2 if Female)
Single	Marital status of EFG member (1 if single and 0 otherwise)
Married	Marital status of EFG member (1 if married and 0 otherwise)
Widowed	Marital status of EFG member (1 if widowed and 0 otherwise)
Age	Age of EFG member
Walls	Quality of walls in house (ranges from 1 to 3, with 3 being the highest)
Toilet	Quality of toilet in house (ranges from 1 to 3, with 3 being the highest)
Cooking	Quality of cooking facility/ energy source (ranges from 1 to 3, with 3 being the highest)
HQI	Weighted average of household facilities (ranges from 1 to 3, with 3 being the highest)
HH size	Number of members living in the household
No. of Children	Number of children in the household
No. of Elderly	Number of elderly in the household
No. of adults	Number of adults in the household
Edu EFG	Formal education level of the household head (ranges from 1 to 14, with 14 being the highest level)
Edu HH head	Formal education level of the EFG member (ranges from 1 to 14, with 14 being the highest level)
Highest Edu	Highest formal education level in the household (ranges from 1 to 14, with 14 being the highest level)
Total Income	Total income earned by all household members (In ZAR, includes income from grants)
Grant Income	Total income earned by all household members from non grant sources (In ZAR)
Non Grant Income	Total income earned by all household members from grants (In ZAR)
No. of Grants	Number of grants received by household
Coping Strategy Index	Proxy for Food insecurity (index ranges from 0 to 56 with 56 being the most food insecure)
Food Diversity Index	Proxy for Food diversity (Index ranges from 0 to 10 with 10 being the most food diverse)
SCG Membership	Status of SCG membership (1 if member and 2 if not member)
SCG Duration	Cycles of SCG membership (measured in years)

Figure 4: Variables of Interest

3. STATISTICAL ANALYSIS

3.1. INCOME FROM ENTERPRISE MODEL

Using the Ordinary Least Squares (OLS) model, the association between income from enterprise and demographic parameters were tested.

Four multiple regression models were constructed, where the covariates were demographic parameters, Education and Income, Coping Strategy Index, Food Diversity Index, and Savings and Credit Group Duration. To adjust for heteroskedasticity, robust white standard errors were used to compute the t-statistic. R squared adjusted and AIC were computed as measures of fit for the multiple regression. The

model of best fit was determined based on the highest Adjusted R Squared value.

3.2. PROBABILITY OF DEVELOPING A SUCCESSFUL ENTERPRISE MODEL

A logistic regression was used to estimate effects on a successful enterprise. The Enterprise Success variable has a value of one when a substantial quantity of output was sold in the market and took a value of zero when output was mostly used for own consumption. Using a logistic regression framework, the relationship between development of a successful enterprise was tested against variables that might influence the ability to operate a successful enterprise.

Each predictor and control variable were

Table: Results of the 4 multiple regression model covariates against the log of income from enterprise variable (n = 68), with the coefficient, the standard error, the t-stat and p-value, the R squared adjusted and the AIC.

Variable	Model 1			Model 2			Model 3			Model 4		
	coef	p_value	R2_adj	coef	p_value	R2_adj	coef	p_value	R2_adj	coef	p_value	R2_adj
Intercept	1.248	0.112	0.228	1.278	0.119	0.208	0.301	0.031	0.283	1.392	0.032	0.219
Walls	-0.082	0.418	0.228	-0.108	0.307	0.208	-0.137	0.187	0.285	-0.134	0.122	0.279
Cooking	0.158	0.004	0.228	0.161	0.006	0.208	0.145	0.008	0.283	0.128	0.009	0.279
Sotho	-0.225	0.007	0.228	-0.237	0.008	0.208	-0.233	0.005	0.283	-0.207	0.109	0.279
Zulu	0.165	0.47	0.228	0.095	0.516	0.208	0.114	0.361	0.283	0.122	0.333	0.279
Single	0.262	0.09	0.228	0.231	0.171	0.208	0.19	0.209	0.283	0.197	0.181	0.279
Gender	-0.296	0.042	0.228	-0.281	0.051	0.208	-0.328	0.021	0.283	-0.337	0.019	0.279
Age	0.076	0.004	0.228	0.077	0.005	0.208	0.08	0.001	0.283	0.076	0.003	0.279
Age_sq	-0.001	0.004	0.228	-0.001	0.003	0.208	-0.001	0.001	0.283	-0.001	0.005	0.279
EduEFG				-0.001	0.971	0.208	0.016	0.462	0.283	0.017	0.434	0.279
Total Income				0	0.466	0.208	0	0.126	0.283	0	0.147	0.279
Coping Strategy Index							0.007	0.2	0.283	0.007	0.021	0.279
Food Diversity Index							0.104	0.017	0.283	0.101	0.018	0.279
SOC Duration										0.025	0.276	0.279

Figure 5: Results of 4 Multiple Regression Models

individually regressed on the log of income from enterprise, with covariates; dummy variables for language were dropped.

4. RESULTS

4.1. INCOME FROM ENTERPRISE MODEL

4.1.1. Stage 3 – Model of Best Fit

Model 3:

$$Enterprise_i = B_0 + B_1Walls_i + B_2Cookin B_3Zulu_i + B_4Sotho_i + B_5Single_i + B_6Gend B_7Age_i + B_8Age_i^2 + B_9EduEFG_i + B_{10}TotalIncome_i + B_{11}CopingStrategyInc B_{12}FoodDiversityIndex_i + \epsilon_i$$

Where, Income from Enterprise is the dependent variable in the regression; B_j , for all $j \in [0,12]$ are the regression coefficients.

In Model 3, Cooking facilities in the household and Age have a significant positive relationship. The material of walls in the household and Gender have a significant negative relationship. Coping

Strategy Index and Food Diversity Index have a significant positive relationship.

4.2. PROBABILITY OF DEVELOPING A SUCCESSFUL ENTERPRISE MODEL

4.2.1. Stage 2 – Model of Best Fit

Model 2:

$$Enterprise\ Success_i = B_0\ Walls_i + B_2\ Cooking_i + B_3\ Zulu_i + B_4\ Sotho_i + B_5\ Single_i + B_6\ Gender_i + B_7\ Age_i + B_8\ Age_i^2 + B_9\ EduEFG_i + B_{10}\ TotalIncome_i$$

Where, Income from Enterprise is the dependent variable in the regression; B_j , for all $j \in [0,10]$ are the regression coefficients.

In Model 2, Cooking source in the household, Zulu, and Education of HH Head have a significant positive relationship. Gender and Sotho variables have a significant negative relationship. Model 2 has the lowest AIC and is deemed to be the model of best fit (AIC = 112.199).

Table: Results of the 4 logit regression model covariates against the Enterprise Success variable (n = 30), with the ME, p-value and AIC.

Variable	Model 1			Model 2			Model 3			Model 4			Model 5		
	ME	p-value	AIC	ME	p-value	AIC	ME	p-value	AIC	ME	p-value	AIC	ME	p-value	AIC
Intercept	0.538	0.002	1.4231	0.531	0.001	112.169	0.419	0.002	112.901	0.690	0.012	120.822	0.330	0.001	123.822
White	-0.167	0.123	1.4231	0.192	0.041	112.169	-0.149	0.281	112.901	0.218	0.084	120.822	-0.313	0.008	123.822
Cooking	0.591	0.04	1.4231	0.135	0.064	112.169	0.141	0.368	112.901	0.11	0.309	120.822	0.08	0.484	123.822
Zulu	0.226	0.017	1.4231	0.236	0.011	112.169	0.226	0.019	112.901	0.16	0.197	120.822			
Sotho	-0.263	0.007	1.4231	0.236	0.027	112.169	-0.239	0.04	112.901	-0.213	0.063	120.822			
Widowed	-0.041	0.663	1.4231	0.040	0.331	112.169	-0.069	0.404	112.901	-0.108	0.096	120.822	-0.008	0.934	123.822
Gender	-0.274	0.007	1.4231	-0.487	0.001	112.169	-0.274	0.007	112.901	-0.274	0.007	120.822	-0.315	0.007	123.822
Age	0.003	0.513	1.4231	0.006	0.16	112.169	0.005	0.279	112.901	0.002	0.603	120.822	0	0.37	123.822
Total Income	0	0.889		0	0.889	112.169	0	0.816	112.901	0	0.686	120.822	0	0.429	123.822
Total HH Income			0.08	0.002	112.169	0.081	0.021	112.901	0.001	0.949	120.822	0.006	0.795	123.822	
Coping Strategy Index				0.002	0.594	112.169	0.002	0.684	112.901	0.002	0.684	120.822	0.002	0.152	123.822
Food Diversity Index						0.017	0.577	112.901	0.003	0.912	120.822	0.018	0.25	123.822	
AIC0 Threshold								0.607	0.490	120.822	0.061	0.33	123.822		

Figure 6: Results of 4 Logit Regression Model

Interpretation:

- A Zulu speaking member has on average a 23.6% higher probability to succeed in enterprise development than Xhosas or Sotho speaking members. The Zulu community interviewed was primarily in Underberg. The villages around Underberg have soil more conducive for agriculture, as well as higher rainfall levels. The proximity to markets in Underberg also has a positive effect on enterprise development. Further, the project is more recent in Underberg and hence, might have more enthusiasm in implementation and participation.
- A member who speaks Sotho has on average a 35.9% lower probability to succeed in enterprise development than a Zulu or Xhosa speaker. Most Sotho speakers are immigrants from Lesotho and do not receive social grants from the government. The Sotho communities are significantly poorer and hence, have less resources to invest in the enterprise. As a result, they have a lower probability of success. There is a need to focus on the Sotho communities who need more support.

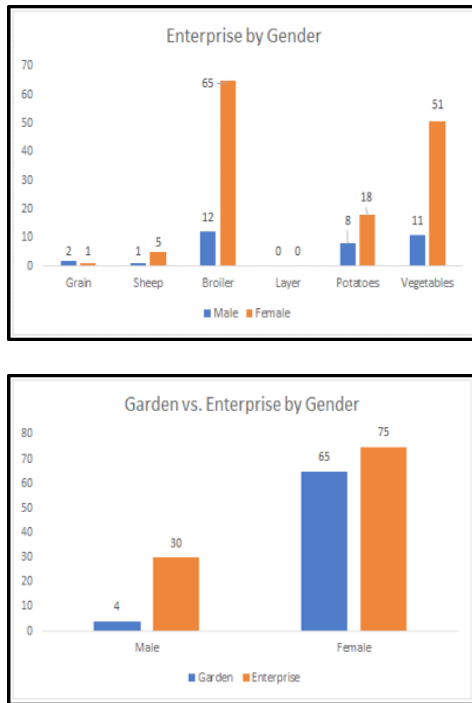


Figure 7: Histogram of Enterprise Trends by Gender

5. NOTABLE FINDINGS

5.1. ENTERPRISE VS. GARDEN

According to our findings, improving food security increases the income earned by enterprises. However, the relationship is not linear, implying that at high levels of food security we see a reduction in the

income earned from enterprises. Hence, food security only partially spurs income generation. To move toward sustainable enterprises, we need to assess the potential of these “gardens” to become enterprises. This is a function of both human capital (having the necessary skills and knowledge) but also physical assets and financial capital. If the “garden” is too small or if the area where the members lives lacks a perennial supply of water, the chances of the person becoming a real entrepreneur are very slim.

5.2. OWN VS. GROUP ENTERPRISE

SaveAct enterprise groups are a mix of own and group enterprises. The enterprise project aims to enable members to develop their own economically sound enterprise.

Group enterprises often have different levels of commitment towards developing the enterprise, leading to reduced incentive to improve productivity. Secondly, channelling funds to the enterprise is more complicated in a group enterprise, as investing in improving productivity needs the consent of all group members.

Nevertheless, if SaveAct doesn't want to target program's recipients it should allow newly established EFGs and/or new member to act as a group as long as each member feels ready to act on their own.

5.3. PROJECT IMPLEMENTATION

There was a notable difference in the implementation of the Enterprise Development Project across locations and Enterprise Development Officers. The difference was in terms of the number of active groups, number of trainings provided and rigour of data records. SaveAct does

currently have a Monitoring and Evaluation framework in place which highlights these discrepancies.

5.4. SUPPLY OF WATER

Inadequate supply of water was commonly cited as a reason for crop/ poultry failure during the field study. The effect was very pronounced as the study was conducted in winter months when the conditions are the harshest. Low and erratic rainfall leads to acute water shortage across both in the Eastern cape and KwaZulu Natal provinces of South Africa.⁴ In these areas, irrigated farming has the potential to significantly contribute to food security and income from enterprise.⁵ The bulk of irrigation development in South Africa has benefited white farmers and hence, the access to adequate water supply in remote and poor rural areas is fairly limited.⁶

5.5. ACCESS TO MARKET

The Enterprise groups are located far away from large market centres; as there is a lack of transport, this often limits their contact to a neighbours and local markets. This limited access makes it so there is no guarantee that they will find a market for all their produce, as well as be able to sell output at competitive prices and incentivize improved productivity.

Internal constraints include factors in the control of the farmer like lack of skills, knowledge, capital etc. External factors like poor institutional and infrastructural structures, poor policies and legislation.⁷

5.6. USE OF SHARE-OUTS AND LOANS: STRIKING TRENDS

The primary uses are as follows:

- 44% of loans and 42% of share-outs

are used for housing improvements.

- 19% of loans and 22% of share-outs are used for school expenses.
- 7% of loans and 15% of share-outs are used to buy food.
- 10% of loans and 4% of share-outs are used for inputs and tools.

This study shows that loans and share-outs are seldom used to feed enterprise activities. This implies that membership in savings groups do not directly feed into investment in enterprise. However, there is a significant indirect impact. Based on the quantitative analysis, we see that the duration of membership in savings groups has a strong positive impact on enterprise development.

5.7. SCG MEMBERSHIP DURATION

The quantitative analysis in Section 4 shows that the duration of SCG membership has a positive correlation with both probability of success of enterprise, as well as the average income earned from enterprise. Longer affiliation with SaveAct's savings groups leads to improved standard of living and financial independence and hence, enhances a member's ability to develop an enterprise. Given the complementarity between the investment of savings and developing an enterprise, it might be beneficial to target older SCG members in the enterprise development project.

6. RECOMMENDATIONS

1. Set up a framework to measure profitability and productivity using one of the following techniques:⁸
 - Crop cut - Estimating crop yield by sampling a small

subplot within a cultivated field. Under this method, one random subplot, two large quadrants or multiple small quadrants can be measured.⁹ It is important to ensure that the sampling is random to minimize bias.

- Farmer survey – Interview farmers and ask them to recall the yield for an individual plot. Postharvest surveys should be carried immediately after harvest to improve accuracy of data. This methodology is cheap to implement but has scope for biased responses and measurement error.
2. Partner with South African NGOs like “Spring of Hope” to improve borehole water drilling in the affected areas. Furthermore, collaborate with organizations like “Borehole Water Association of South Africa” for the necessary legal guidance.
 3. Collaborate with donor agencies or partner organisations to construct a micro water shed management plan:
 - Construct bunds to eliminate soil and water run-off and recharge local aquifers
 - Create percolation tanks and plant trees to hold water and recharge groundwater levels.
 - Set up a water council to ensure equitable distribution of water resources
 - Collect community funds to partially fund the project to increase commitment from members.
 4. Set up a framework for early warning and drought monitoring. Better

information will help EFG members manage water resources sustainably.

5. Partner with organizations to set up a Participatory Market System Development project that links smallholders to buyers. Quarterly meetings are held to discuss prices, quantity, quality and other logistics.
6. Partner with agro-business companies to set up contract schemes that guarantee the enterprise members a market for their output. The quality checks undertaken by agribusiness companies will also increase the incentive to improve yields.

7. CONCLUSION

The enterprise development program has gone a long way towards enabling group members to find economically sound ways of re-investing their savings. It has improved livelihood, wealth creation opportunities in a sustainable manner and empowered members to make decisions and take ownership of their respective enterprises. About 93% of all members surveyed said their membership in SaveAct contributed significantly to improving their social relationships within the household, as well as 87% improvement in social relationships in their community.

However, only 60% of all the SaveAct enterprises are able to sell their output in the market and earn an income. The remaining 40% of the enterprises consume the output they produce. There is a need to focus on maximizing profitability and productivity of the enterprises. Complementary policies to enable members access to water supply, a market place and better agricultural practices is crucial to

the success of the program. There is also a need to monitor the implementation of the program more closely and take action to address problems in regions where targets of the project are not met.

ENDNOTES

1. Fafchampsy, Marcel. *Vulnerability, Risk Management, and Agricultural Develop.* Oxford University, 2009.
2. *Integrated Agriculture Development Finance Policy Framework (IADFP) for Smallholder Farmers. Integrated Agriculture Development Finance Policy Framework (IADFP) for Smallholder Farmers.* (2015). Department of Agriculture, Forestry and Fisheries and FinMark Trust, 2015.
3. saveact.org.za/
4. Averbeke, W Van , et al. *Smallholder irrigation schemes in South Africa: a review of knowledge generated by the water research commission.* 2011.
5. Lipton, M. *Rural reforms and rural livelihoods: The context of international experience.* Vol. 1, Dalbridge, Durban, South Africa, Indicator Press, 1996.
6. Bruwer, J, and P Van Heerden. *Spotlights on irrigation development in RSA: The past, present and future.* In: *Proceedings of the Southern African Irrigation Symposium.* Pretoria, South Africa, Water Research Commission, 1991.
7. Sikwela, Mpuzu. *The impact of farmer support programs on market access of smallholder farmers in the eastern cape and KwaZulu-Natal provinces, South Africa.* . University of Fort Hare, 2013.
8. Sapkota, Tek, et al. *Yield Estima-*

tion of Food and Non-Food Crops in Smallholder Production Systems.

9. Fermont, Anneke, and Todd Benson. Estimating yield of food crops grown by smallholder farmers: A review in the Uganda context. International Food Policy Research Institute. 2011.