

The Georgetown

PUBLIC POLICY REVIEW

The Global Workforce:
Responses to Challenges
in America and Abroad

Interview with Jennifer Granholm,
former Governor of Michigan

Ingrid Stegemoeller

Interview with Harry Holzer,
former Chief Economist, US
Department of Labor

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The American Recovery
and Reinvestment Act and Subsidized
Employment in Mississippi

Ed Sivak

The Informal Sector and Domestic
Investment in Developing Countries

Julie Biau

Incorporating Human Security into
National Strategy

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The Role of Public Perception of Crises

Weimin Mou and Richard Harris



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EDITOR'S REMARKS

As the world struggles to recover from a major recession, a primary focus of domestic and international policy discussions is how to educate and train a strong workforce capable of responding to a changing global economy. Amidst this backdrop, the theme of this volume of the *Georgetown Public Policy Review* is “The Global Workforce: Challenges and Opportunities in America and Abroad.”

We open the journal with an interview with former Michigan Governor Jennifer Granholm, who discusses how Michigan’s successful No Worker Left Behind program may offer a blueprint for other states to help displaced workers. Governor Granholm also shares her thoughts on infrastructure investment, AmeriCorps expansion, and government obstructionism, leaving us with a sense that now, more than ever, the US needs young leaders dedicated to public service.

Review staff also had a chance to sit down with Georgetown Public Policy Institute (GPPI) Professor Harry Holzer, Senior Research Fellow at the Urban Institute and former Chief Economist at the US Department of Labor. Dr. Holzer suggests some policy options for improving the unemployment rate, as well as how the US can better provide career and technical training in order to address long-term employment challenges. He also expresses concern about youth recovery from the recent recession, stressing that America can do better to equip a scarred generation for the future.

We cannot thank Governor Granholm and Dr. Holzer enough for sharing their expertise with the *Review* and our readers, as well as for their inspiring dedication to challenging policy issues.

Turning now to this volume’s quantitative pieces, Ed Sivak, a GPPI alumnus, shares initial research findings from his evaluation of a subsidized employment program in Mississippi created by American Recovery and Reinvestment Act (ARRA) funds. Sivak’s exciting research concludes that the program may be associated with an increase in participant wages and labor force attachment that could prove valuable for informing federal workforce development policy.

Next, Julie Biau, another GPPI alumna, examines the informal sector and domestic investment in developing countries. Biau’s exceptional research suggests that informal sector investment outcomes may vary according to country income level, providing evidence for revision of developing-country policy toward the sector.

Rounding out this volume, the first of our issue spotlights is an author-revised book chapter from *Human Security in a Borderless World*. Authors Derek S. Reveron and Kathleen A. Mahoney-Norris make a

strong case that, in light of a world in which threats are increasingly borderless, the US should include the concept of human security within its broader national security strategy.

A collaboration between Professor Weimin Mou and GPPI graduating student Richard Harris completes this volume. In the fall of 2011, Professor Mou spent several months at Georgetown in an exchange program with the Central Committee Party School in China. The *Review* is honored that Professor Mou took the opportunity to work with Mr. Harris and offer his valuable insight on the role of public perception of crises.

On behalf of the staff of the *Georgetown Public Policy Review*, I would like to thank each author for their extraordinary contributions to our journal. I would also like to extend the same gratitude to the members of the GPPI community who contributed to our efforts this year, especially our faculty advisor, Robert Bednarzik, and our faculty reviewers, Alison Audinbaugh, Carol Flynn, Jan Goldman, Gillette Hall, Andreas Kern, Lindsay Lowell, Dennis McBride, Mark Nadel, David Podoff, Ron Shadbegian, and Adam Thomas.

I am most grateful to have worked with a remarkable group of peers to carry on the *Review's* thoughtful contributions to public policy discourse. Each and every member of *Review* staff was vital to our astounding progress this year, including unprecedented blog traffic, first-ever policy forums, spectacular fundraising events, and the publication of the inaugural *Georgetown Public Policy Review* Graduate Thesis Edition. This publication, our annual journal, is the result of the particular dedication of Kathryn Bailey, Richard Harris, Kathryn Short, and each member of our exceptional print and interview editing teams.

Finally, I would like to extend special thanks to the Executive Team: Richard Harris, Kathryn Bailey, Luca Etter, Kathryn Short, Christina Moore, Matt Doyle, Jennie Herriot Hatfield, and Sarah Orzell. Their leadership, initiative, and dedication to excellence inspired me at every turn over the past year.

Congratulations, all, on another outstanding year.

Warmest regards,

A handwritten signature in blue ink that reads "Amanda Huffman". The signature is fluid and cursive, with the first name being more prominent.

Amanda Huffman
Editor-in-Chief

INTERVIEW WITH JENNIFER GRANHOLM:

**On Infrastructure Investment, AmeriCorps Expansion, and
the Need for the Media to Call out Obstructionists**

By Ingrid Stegemoeller

Jennifer Granholm served as Governor of Michigan from 2003-2011. She is a Distinguished Practitioner of Law and Public Policy at UC Berkeley. Granholm and her husband, Dan Mulhern, recently authored the bestselling political book, *A Governor's Story: The Fight for Jobs and America's Economic Future*, which explains how Michigan pioneered ways out of a perfect economic storm and offers proven advice for a nation desperate to create jobs. She recently became the host of "The War Room with Jennifer Granholm" on Current TV, which airs weeknights at 9/8c.

Georgetown Public Policy Review: Education is a key component to this country's future economic success, both for young people and for adults whose jobs no longer exist. In Michigan, you started the No Worker Left Behind program, which has successfully retrained more than 150,000 Michigan citizens. This initiative has national promise. What recommendations can you provide for federal policy makers in using your model?

Jennifer Granholm: In Michigan, we had to go to the federal government to get waivers from the restrictions that are embedded in the current Workforce Investment Act and Trade Adjustment Assistance money. We asked for a waiver to allow us to have the flexibility to craft a program that would serve our population, which obviously had been enormously affected by the changes in the manufacturing sector and the auto industry. They gave us permission to do that, and they also, with the Recovery Act, provided additional funds. And so, I said in the State of the State address, the first 100,000 people who come in the door, we will pay for your tuition at a community college: two years, \$5,000 per year, up to \$10,000 per worker. But the catch

“So, the bottom line is, our system, which was developed and perfectly fine in the last century, is antiquated when you compare it to a global economy and the rapidly changing needs of the private sector in that global economy.”

is you must agree to be trained in an area of need. We had worked with our community colleges and our business community to identify what those areas of need were in each region of the state. And we crafted, in partnership with the community colleges, programs to address those displaced workers that would land them a job at the end. That was the structure of the program.

The federal changes that need to happen are to provide states with flexibility, or at least we need to upgrade our current labor laws and the laws related to compensation for workers who have been displaced. The rules are very rigid and there are a lot of hoops to jump through, but the reality is that in a 21st century global economy, the ability to retrain people and to be creative about it, and to be responsive to the private sector, which is really what you want, must be much more robust than what it currently is. And I use in the book, for example, what Germany has done. Instead of requiring people to continually search for a job—as opposed to going to get retrained while they're on unemployment, they encourage apprenticeships, they allow people to remain employed, they subsidize, essentially, employment rather than unemployment. In down cycles, the manufacturers, for example, really like that because they have a skilled workforce they don't have to lay off and then rehire; they just reduce worker hours and account for the down cycle in that way.

So, the bottom line is, our system, which was developed and perfectly fine

in the last century, is antiquated when you compare it to a global economy and the rapidly changing needs of the private sector in that global economy.

GPPR: The Race to the Top initiative encourages states to make innovative and meaningful education reform in a competition for federal grants. How might this model work in other policy areas?

JG: To me, the idea of putting out a pot of money that states can compete for, and requiring them to make changes to their state laws through their state legislature to be able to successfully vie for that, is the best model that I have seen that addresses both the needs of Democrats and Republicans. There's obviously a lot of philosophical opposition to federal government involvement, and the governors really like the ability to compete. So if you want a bottom up strategy, then put out a pot of money—Race to the Top was \$4 billion—put it out and have the states vie for it. For example, if we wanted to become independent of foreign oil, if we want to have a significant move toward clean energy or energy independence, then put out a pot of money that would reward states that demonstrated they were willing to change their laws to really encourage the jobs and investment that would go along with creating a whole new energy sector. To me that model is the perfect model for a “Jobs Race to the Top.”

GPPR: In your book, you discuss the differences in your experiences with the Bush and Obama administrations in terms of the support you received

from the federal government while the auto industry was floundering. Can you talk more about the importance of the state-federal relationship and where you see opportunities for additional partnership?

JG: The states simply do not have the resources to compete globally for jobs. We just don't. All we can do is compete against one another as states. This weekend [Feb. 24-26, 2012], in Washington DC is the National Governors Association meeting, and I can guarantee you that governors will go there and sort of nudge each other and say, “Ha, I got that company to come to Ohio from Massachusetts because I was able to put these types of incentives on the table.” We're always vying against one another for job locations inside the United States.

“Left alone, the states will never be able to compete against China, against India, or against any of these emerging nations. We simply don't have the resources. You have to have a partnership with the federal government.”

But the reality is, jobs in a global economy are moving to places that have lower wages than any of us would ever want to provide, and to countries that are being very aggressive in offering access to capital and assembling land for investment in factories, etc. So we've got to have a state-federal partnership on economic development. Obviously the Race to

the Top idea is one idea, but truly the states need to leverage federal dollars to be able to go after international investment and encourage that investment to happen inside the United States. Left alone, the states will never be able to compete against China, against India, or against any of these emerging nations. We simply don't have the resources. You have to have a partnership with the federal government.

“We identified which companies across the world were supplying the things that were necessary for us to build this industry and then I went after them, and got them, and brought them back to Michigan.”

GPPR: Do you think there are trade policies that could be changed to better leverage state and federal resources globally?

JG: I do think the federal government is the place to be able to attack the issue of unfair trade, and of going after trading partners who are taking us to the cleaners, where there are no consequences for violations of trade agreements. The trade negotiations that are done by the US trade representatives are a place where we can really level the playing field and insist that our trading partners abide by the same rules that we abide by so that our businesses are not disadvantaged. So absolutely, the federal government is necessary to ensure there's at least a level playing field.

But I would say the federal government is also a great place, especially with ambassadors that are located in every country, to allow for partnership with the states to be able to go after international investment, so that you see insourcing of jobs to the United States, rather than this continual outsourcing of jobs.

So on both fronts, playing defense by ensuring the playing field is level through the US trade representatives and enforcement of trade agreements, and playing offense by going after international companies that want to do business in the US — in partnership with those ambassadors, targeting that strategy to make the US a destination place for international investment. Those are both great strategies.

GPPR: As governor, you were quite successful in traveling to other countries and recruiting businesses from outside the US to come to Michigan. What lessons did you learn out of those experiences that might be applied either in other states or at the federal level?

JG: Let me give you a story from Michigan as an example. When the federal government decided that we wanted the United States to be able to produce the means for our own energy independence, at least with the electric vehicle and the guts to that electric vehicle—which is the lithium ion battery—when the US decided to do that and the state of Michigan pancaked our state resources on top of the federal grants to make Michigan irresistible, what we did is to say we

want the whole supply chain for the lithium ion battery.

Many of those suppliers are not in the United States. So I had to go to Japan, for example, and get a company called Techno Semi Chem to come to Michigan and be a supplier to that lithium ion battery. I had to go to Japan and get a company called Toda to come to Michigan and build a cathode for the lithium ion battery as a supplier. I had to go to Korea to get LGChem, a Korean company, to build the batteries in the United States. We identified which companies across the world were supplying the things that were necessary for us to build this industry and then I went after them, and got them, and brought them back to Michigan. So for us, that's just one story. We were able to get 17 companies in the lithium ion battery space to come and locate inside of Michigan because we targeted international investment.

Now the US does not have a national goal of what is known as foreign direct investment, FDI. Almost every other advanced nation has a goal. If you go to Singapore, for example, they have an astounding goal of getting a certain amount of foreign companies to locate there, invest there, and hire Singapore citizens. Every state and the federal government should be working in tandem to have international goals of getting companies to come to our country to be able to hire our citizens. A paycheck is just as green from a company that's headquartered in America as a country that's

headquartered in Japan if they're hiring our citizens.

GPPR: Working with unions in restructuring the auto industry was a key part of your success. How can unions continue to adapt to the changing economy? What role do you think they'll continue to play in our country?

JG: I use Bob King, who is president of the United Auto Workers, as a really fine example of a 21st century union leader. He's often said "this is not your father's auto industry." While in the 20th century, their strategy was to hold onto job classifications and to pit labor against management, but in the 21st century they recognize the enemy is not management, the enemy is the globe. And if we want to make the US-based companies successful, the UAW has to take on a different role and become the broker of great skill. So the UAW is now the place where sophisticated techniques related to auto manufacturing occurs. The automobile is the most technologically advanced mass-produced product in the world and they are the place that trains the kind of workers that will make the quality products that the auto companies want.

"A paycheck is just as green from a company that's headquartered in America as a country that's headquartered in Japan if they're hiring our citizens."

For example, there's a factory that was built a couple of years ago outside of Detroit called the Global Engine Manufacturing Alliance, and in that factory there's not a single worker that doesn't have a college degree, or a technical or vocational certification, because you need to have people who know how to program the robots, who know how to maintain a robotic line. You need a level of sophistication that was never imaginable in 20th century manufacturing processes. You don't have people doing this sort of repetitive motion stuff that comes off an assembly line anymore. You really have to have a very high level of skill. This is what the UAW can offer to automakers. If you want to have a quality product that is going to make you proud across the globe, build it here, because we will ensure that quality is present. The number of people on the line is significantly reduced, and the level of quality has significantly increased.

That's, I think, the model for a 21st century labor union. And back to the trade issue, we should be negotiating into trade agreements the ability of workers to organize in other countries, to level the playing field as well. So, if the UAW and others are able to organize in other countries, then that

“If you look at the OECD nations and the percentage of their GDP that they invest in infrastructure, you would see a significant difference from what we have in the United States. Other countries understand the importance of investment in these basics...”

really does provide a much more level playing field, particularly for the workers in those countries who may be undergoing very unfair labor practices, or working 12 hours a day for \$0.50 an hour, or who may be up against child labor and all sorts of practices that we find abhorrent but that reduce the cost of manufacturing in that country. We need to ensure that people are protected around the world.

GPPR: One of the many problems you pose in your book addresses infrastructure, and the fact that states and the country have chronically underinvested in schools, the energy grid, the health care system and more. How do you propose to fix these problems when state and federal budgets are still stretched tight?

JG: First of all, we have to look at our relative investments—relative to the rest of the advanced nations. If you look at the OECD nations and the percentage of their GDP that they invest in infrastructure, you would see a significant difference from what we have in the United States. Other countries understand the importance of investment in these basics—not just hard infrastructure, but soft infrastructure too. When I say soft I mean making sure we have high-speed Internet, or making sure we have investment in human capital. Other countries are doing this to a much greater extent and they're using it as a way to lure industry to their shores.

So, for example, yesterday [Feb. 22, 2012] the President rolled out a tax plan, and Republican presidential

candidate, Mitt Romney, did as well. This morning there are some front-page headlines that compare the concepts in these tax plans. And on the Republican side, what they are doing is projecting forward massive deficits, so they would be depriving our nation of the investments in the infrastructure of our country so that we can be competitive by providing corporate tax cuts. But if you ask industry, they would say we want to see the United States invest in infrastructure as part of the common good so that we can hire people who are trained, so that our products can travel on roads that are smooth and so that we can ensure that electricity gets to our factories. All of that is part of the common good, so we have to have a rational investment strategy, which means a rational revenue strategy that supports those investments, and that means a rational tax policy that will sustain the investments necessary for them and for our nation to be competitive

GPFR: If you could offer federal policy makers one piece of advice for remaking the US economy's structure, given your experience as governor of Michigan, what would you offer?

JG: Clearly the 20th century—or frankly 19th century—strategy of simply cutting, and shrinking the size of government doesn't work. If that is your only economic development strategy, it is a loser. Michigan's experience, in our laboratory of democracy, demonstrates that. I cut more than any governor in the history of Michigan, but also in the country, during the first decade of the century.

By far, I cut more. If shrinking government, and shrinking the number of state employees, which I did far more than any state in the country; cutting taxes, which I did 99 times in my first term in office; if that alone were the prescription for economic success, Michigan would've had the most robust economy in the nation.

“Clearly the 20th century—or frankly 19th century—strategy of simply cutting, and shrinking the size of government doesn't work. If that is your only economic development strategy, it is a loser.”

The flip side to that, and what actually works, is having just the things you and I discussed: public private partnerships, state-federal partnerships, a strategic, active government—not a passive government, not a hands-off government, but an active government—and I'm not talking about a big government either, I'm talking about a strategic, active government with a strategy to be able to get international investment, to be able to invest in the things we know we can be competitive globally as states and as a federal government. But without an active strategy, without a hands-on aggressive nature, without a leader who stays up at night trying to figure out how to create jobs every single day, without that, we will be destined to continue this downward spiral and loss of competitiveness to other countries.

It's not just one thing, it is a mindset—it is a mindset away from the notion that all you've got to do is get government out of the way, or shrink it so that it drowns in a bathtub, or have a hands-off approach because the private sector will take care of everything—the private sector will take care of making money. That's what they're supposed to do, and they will go to the place on the globe that enables them to make the most money. Without an active government here in the United States, that place won't be us.

“But if you want to see progress and movement, if you want to see collaboration, if you don't think compromise is a dirty word, then you have to remove the obstructionists from office and put in people who are willing to make progress...Call out the people who are obstructing, point them out by name, and ask the citizens to remove them.”

GPPR: You did experience some pretty intense gridlock in Lansing during your time as governor. What ideas do you have for easing some of that?

JG: You've got to make a very concerted effort to call out people who have been sent to the capital for the purpose of obstructing. If they have gone there for that purpose, they will succeed in obstructing. And if that's what you want, by all means elect those kinds of people. But if you want to see progress and movement, if you want to see collaboration, if you don't think

compromise is a dirty word, then you have to remove the obstructionists from office and put in people who are willing to make progress. That is the biggest suggestion that I have. Call out the people who are obstructing, point them out by name, and ask the citizens to remove them.

GPPR: You have a new show on Current TV, “The War Room.” What are your thoughts on the role of the media in calling out people who have been elected to serve?

JG: The media have been completely lame about it, especially places like CNN or ABC or NBC. They feel like they have to give equal time to both sides. They have a dereliction of duty in not pointing the finger at why things don't get done. Everybody knows it, everybody sees it, but there's this notion that you've got to have this false equivalency and have people on from each side so you don't get to the bottom of it.

I want to see the media call folks out. A simple thing—the debates. Who won the debate? If you think somebody won the debate say it, but don't say, “Well, this side said this, and that side said this,” and even if it was clear, many in the media don't feel like they can call it out because they have to be balanced. The idea of balance has elevated the side that has obstructed and given them some legitimacy when everybody knows where the problem lies. The media have been an accomplice.

GPPR: Another demographic that's suffering as a result of this recession is twenty-somethings looking to begin

their careers. Many in this age group are having difficulty finding work, even though they are educated. What are your thoughts on ensuring young people are able to get a successful start to their professional lives?

JG: I think one of the most significant and best programs that has come out of the federal government, which I would love to see ten times bigger, is AmeriCorps. People who, especially during a tough time when it's not obvious there are jobs, when the recovery is slow in coming back—at a time like that, to be able to give young people the opportunity to serve their country. If they don't want to serve it in war, give them the opportunity to serve their nation in schools, or in conservation, or in health care. To be able to amp up that program is a huge opportunity without a whole lot of cost.

I say this as a mother of two young people who are in their 20s, who both have gone into AmeriCorps, who both have served in the toughest of urban schools through CityYear, and who have come out of that experience feeling it was the best experience they'd ever had. They train people in leadership, they give back to the community, and it's a win-win-win all the way around. I would love to see a much bigger emphasis on the part of the federal government in supporting initiatives that would allow young people to have the opportunity to go to a different place, serve their country in a very meaningful way, and get a lot back themselves.

GPPR: On a related note, what advice can you give to young people interested in public policy leadership?

I strongly urge public policy students to consider running for office. We've got such a need for people who are of pure heart, and who only want to make the nation better. There's such a level of distrust, discord and disgust with politics that often people are dissuaded from running. But if you really want to serve your nation, you've got to raise your hand, you've got to serve to make it better.

GPPR: Thank you so much for your time, insight, and passion for public service.

“We've got such a need for people who are of pure heart, and who only want to make the nation better...if you really want to serve your nation, you've got to raise your hand, you've got to serve to make it better.”

INTERVIEW WITH HARRY HOLZER: Jobs, the Recovery, and a Scarred Generation

By Ingrid Stegemoeller

Dr. Harry Holzer joined the Georgetown Public Policy Institute as Professor of Public Policy in the Fall of 2000. He is currently a Senior Research Fellow at the American Institutes for Research, a Senior Affiliate at the Urban Institute, a Senior Affiliate of the National Poverty Center at the University of Michigan, a National Fellow of the Program on Inequality and Social Policy at Harvard University, a Nonresident Senior Fellow at the Brookings Institution, and a Research Affiliate of the Institute for Research on Poverty at the University of Wisconsin at Madison. He is a faculty director of the Georgetown Center on Poverty, Inequality and Public Policy. Prior to coming to Georgetown, Professor Holzer served as Chief Economist for the US Department of Labor and professor of economics at Michigan State University.

**Georgetown Public Policy Review:
What are the biggest factors keeping
the unemployment rate around 8-9
percent?**

Harry Holzer: Probably the biggest reason that unemployment stays high is that there simply isn't enough aggregate demand in the economy to create demand for enough goods and services that employers would want to hire a lot of workers. Even though we have tried lots of stimulus, the economy's aggregate demand is still weak, and that's usually the case when you have a recession caused by the bursting of a financial bubble. There's been work by a couple of famous economists named Reinhart and Rogoff who wrote a book on this, and they show that all through history, when financial bubbles burst and you have big downturns it takes longer to recover because households and firms have a lot of bad assets on their balance sheets, they're heavily in debt, it takes them time to work their way through that, so there's not a lot of expending or new demand that they generate and while that's true, it's hard to recover. Recoveries are slower.

There are other issues that might also be in play, but I think that's the most important. Some people wonder about what's called "mismatch" in

“Probably the biggest reason that unemployment stays high is that there simply isn't enough aggregate demand in the economy to create demand for enough goods and services that employers would want to hire a lot of workers.”

the labor market between the skills employers are looking for and those the workers have. My guess is, that's a much smaller factor than the lack of aggregate demand, but it might be adding a percentage point or so to the unemployment rate.

There is some evidence of high job vacancy rates—not overall, not relative to the unemployment rate—but in certain sectors like manufacturing there's some evidence of very skilled jobs that employers have some trouble filling and a few other places.

There's one other issue that's probably broader than the recession. It goes through the whole last decade of the labor market, where it seems as though job creation was sluggish. Technology and globalization overall are good things, but they do hurt certain groups and they make it easier for employers to produce goods and services without a lot of workers. The demand for workers, even before the recession, seems a little bit slowed by those kinds of structural factors that limit new hiring. So that's probably one more factor that makes the climb out of the recession a little slower.

GPPR: In talking about these factors, what are some policy steps that you think could help alleviate some of this persistently high unemployment?

HH: The question is, “Can we do much more to generate new demand in the economy?” And we're probably not going to have another really big stimulus package because we've already piled up a lot of debt and I think there's a reluctance to have a really major new

stimulus. The Fed has done almost as much as it can do—short-term interest rates are close to zero. Probably the best thing we can hope for—and this was to some extent embodied in the President’s proposals (the American Jobs Act)—is to have well-targeted policies to make it cheaper for employers to hire new workers—very targeted tax credits for employers who create new jobs.

And some of that was included in the President’s payroll tax cuts for employers. I would have preferred a set of payroll tax cuts that were even more generous than what the president proposed, but better targeted. Just reducing the overall employer payroll tax the 3 to 6 percent doesn’t spur a lot of hiring. But if you have a really big credit targeted at employers who are creating a significant number of new jobs, that would be more powerful. So I think that could help. Will it have a dramatic effect, probably not, but could it lower the unemployment rate by up to a percentage point, probably. And some direct expenditures on infrastructure building and public service employment for the poor would help too.

And then on top of that, other efforts to improve the quality of education and job creation to limit some of these mismatches, just to make sure workers are getting the skills they need for new jobs.

There might be some policies to stimulate more job creation by start-up firms and things like that, so you could throw those in the mix as well.

“This gap has persisted a very long time. There are two issues here. In the US economy, even before the recession, less educated men—men with a high school diploma or less—have taken a beating in this economy.”

GPPR: We’ve seen the recession that’s disproportionately affected African American males, an area on which you have focused some of your study. How long will this gap persist and how do you think we can fix it?

HH: This gap has persisted a very long time. There are two issues here. In the US economy, even before the recession, less educated men—men with a high school diploma or less—have taken a beating in this economy. That’s a long-term problem, and African American men have done by far the worst. Many other complicated social factors have led them to have high incarceration rates, high rates of single fatherhood. They’ve really been very badly hurt by this transition to a service economy. And that in many cases doesn’t show up in the unemployment rate because they simply withdraw from the labor force. So there’s a long-term problem of less educated men, especially less educated black men. Separate from that, those are also the groups that have been hit hard by this downturn, and that shows up in unemployment, rather than withdrawal from the labor force. But then you could say the same thing as before: less educated men have been hurt in this downturn, and African American men harder than ever. African Americans have

always been more hurt by recessions. Roughly for every percentage point that unemployment rises for whites, it rises by about two percentage points for blacks. That's a long historical trend, and it was true this time around as well.

The long-term problem of less-educated men, especially black men, requires a set of long-term solutions that start with the education system. Training people for good jobs that actually exist, making sure that African Americans growing up in low-income communities where there aren't a lot of older working men that can connect them to jobs, that you help provide those connections to the labor market. There's a set of employment training policies that would enhance their access to those jobs. I think also for African American men, you have to do something about the incarceration problem. We simply have too many people in jail. We incarcerate too many people for non-violent drug crimes, and then they recidivate at high levels, often for technical reasons. So we have got to put fewer people in prison, we've got to make it easier for men coming out of prison to find work and to eliminate some of the legal barriers that states have imposed that often limit their access to decent jobs.

“We simply have too many people in jail. We incarcerate too many people for non-violent drug crimes, and then they recidivate at high levels, often for technical reasons.”

We could probably do some things to the child support system: if you're a low-income dad with a child-support order, make it easier to make your payments because once these men fall into arrears on their payments, the taxes on their earnings are very high and all their incentives are to go underground and to disappear.

For a lot of these men who are going to have poor skills and poor work experience, we want to do what we did for the moms, which is to create programs like the Earned Income Tax Credit, which take very low wages and subsidize them and improve incentives to work.

GPPR: Could you talk about some of those long-term policies that you see as helping to make sure that these men with less education get access to education?

HH: There you have to start relatively early. There's a lot that's been written on the achievement gap between whites and blacks and the need to start very early, before people go into kindergarten. Other scholars have written a lot about that and I'm supportive of those policies. My interest is what happens when young people become adolescents and teens and they enter middle school and especially high school; that's where a lot of them are already behind academically. I would prefer to see that they face a range of options, some of which lead to post-secondary education of various kinds, but some would lead directly to the labor market. In the United States, we have not developed a strong system

of career and technical education. I'm not talking about old-fashioned vocational education, but about high-quality career and technical education as exemplified by the career academies or certain very good apprenticeship programs where people get good solid academic training that would certainly prepare them at least for community college but at the same time they also learn occupational skills and labor market experience. The evaluations of the programs like the career academies have shown quite impressive effects on young people that don't necessarily go into higher education, at least right away. It gives them other options in the labor market.

In some sense the whole academic accountability movement has some merit, but it's focused so narrowly on this test-score gap that it has led us to not pursue and not develop a whole range of other pathways that could have served some people well. We're not going to send everybody to a four-year college, we're not even going to send everybody to a two-year college. Right now, our high-school drop out rate is still 25 percent. We need to broaden how we think about high-quality education and thinking about education as having multiple pathways to success either through post-secondary or the labor market, or maybe some combination of the two.

A lot of this involves creating an effective education and workforce system, where education and workforce are working together, they're not separate siloed bureaucracies, which they often are today. We expect our

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community colleges to wear too many hats. We expect them to be academic institutions that feed the four-year system but also provide occupational training and some of them are better at one than at the other. I would make both education and workforce systems work hand in hand with each other but also make them more responsive to labor market needs so that young people, or even adults returning to those systems, face a range of services and options that better link them to available job opportunities.

GPPR: Another population that's been affected by this recession is those in their late teens and twenty-somethings who are just starting their careers and don't have a lot of opportunity right now in this job market. How do you think this generation will be affected?

HH: I have big concerns about this generation of young people. Again, I'd say the same thing I said about less-educated men. There's some evidence that over the last 10 to 15 years, employment rates for this group have dropped; their relative wages have dropped. There are different

reasons for that. High-income kids are working less and less because they're doing more enrichment activities, which is great, but lower income kids often aren't getting the kinds of early work experience they need. And the recession has hit them very hard.

“Young people do bear a strong brunt in a recession, and it can affect their earnings for 10 to 15 years. So even when they start climbing the ladder, they're always going to be below where they might have been.”

There's evidence from the '81-'82 recession, which before this one had been the worst since the Great Depression, that young people coming out of school at that time getting their first jobs, even if they got a job, they were still scarred by the recession because the jobs they got weren't as good. Young people make a lot of progress in the labor market in their first 5 or 10 years by job-switching, by figuring out which job is best for them. But if you're in a recession, it's harder for you to do that kind of productive job-moving, your wages are going to grow more slowly. I worry about young people joining the labor market right now. I certainly worry about the ones that can't find anything in their field, but I even worry for the ones that do find a job, but it's a much less successful job and job path than they would have found in a stronger

economy. Young people do bear a strong brunt in a recession, and it can affect their earnings for 10 to 15 years. So even when they start climbing the ladder, they're always going to be below where they might have been.

GPPR: Based on your work, is there an answer to this?

HH: This is a tough one because as long as the economy remains soft, there's nothing we can do to dramatically speed up the recovery process. It's going to take the better part of this decade to climb our way out of the hole we dug for ourselves and there's not a lot we can do and in that situation people in their 20s and 30s are just going to have a harder time. The best thing you can do is encourage them to get the best possible education and training that they can get if they're not working really productively right now, and to find as much work experience as they can early on.

GPPR: What does it mean for the economy down the line to have this generation of workers whose potential was a little bit stunted at the beginning of their careers?

HH: It's hard to say, economy-wide, what that means. One of the things we're also grappling with is, because the nation's finances are in such bad shape, we're going to encourage people to retire more slowly. We have to because we simply can't afford our health and retirement policies for current retirees. People above 55 have actually done relatively well in this downturn, which is not to say that they haven't suffered. But their employment rates

have actually held up better because a lot of them are simply choosing to work longer and the labor market is absorbing them. That's good news for those elderly people. It's good news for the nation's finances, but at the same time it creates problems for people trying to get a first foothold. I don't know how to resolve that. We can't afford the current retirement system. People have to be encouraged to work into their late 60s, maybe into their early 70s. And that is going to mean probably a slower rate of jobs opening up.

GPFR: You've written about child poverty and its negative effects on both individuals and society. How do you shine a light on this problem for policymakers in a strongly partisan environment?

HH: I've tried to do that because I've written some things showing that there is a cost to the overall economy by having so many kids grow up in poverty. And of course the poverty numbers are worse in a recession. And they're going to be bad for several years. Coming out of this downturn, kids are going to be scarred, both by the high rates of poverty and by the high rates of parental unemployment. I've written some papers showing that even in good times, the high rates of child poverty in America mean that when those poor kids become adults, they're likely to have lower rates of education, which means lower rates of employment and earnings; higher rates of incarceration; worse levels of health—all of which impose economic costs on the country. I've done some calculations to suggest

that those costs are high. I did a rough calculation several years ago saying that the rate of child poverty in America ends up costing us a half-trillion dollars a year in loss or waste in GDP. That was a rough calculation and people can quibble with those numbers. But it's probably a big number of economic waste.

I try to make that case. I don't think, politically, people disagree with that. There's a strong sense on both the left and the right that child poverty is wrong, it runs counter to our ideals of equal opportunity and it is bad for the country. It's then hard to get people to agree on what to do about it. So the people that oppose new spending programs, they argue yes, child poverty is bad, but spending programs aren't necessarily alleviating. And there are times when they're right. It just would be nice if we could come to some kind of consensus about where is spending effective and where is it not effective, and what kinds of other policies will work. But I think that's the problem: it's not just making the case that kids are heard, it's then getting people to agree on what to do about it.

“I did a rough calculation several years ago saying that the rate of child poverty in America ends up costing us a half-trillion dollars a year in lost or waste in GDP. That was a rough calculation and people can quibble with those numbers. But it's probably a big number of economic waste.”

“Part of the answer is tying federal and state subsidies not only to academic completion rates, but to completion rates in high-demand fields.”

GPFR: Could you talk about how well—or poorly—our education system is aligned with the labor market?

HH: I don't think it's poorly aligned. And I think economists have a tendency to believe that the market responds to opportunities in the following sense: if there is high demand in a particular occupation or industry that's not being met, wages and salaries rise in that industry. That then encourages young people to go into that field. It doesn't happen right away, but with some time lags people will see those incentives and will respond by entering the field. I think there's some truth to that. The problem is you have a lot of institutions, educational institutions especially, that don't necessarily have an incentive to respond to those market forces. A lot of the public higher education institutions, they get subsidies from the state, just per capita, no matter what the students are doing, no matter what they're completing. They don't have incentive to say ok, we know there are a lot of jobs in health care. Let's expand our training capacity in health care. Health care is expensive. Hiring nurses to teach nursing classes is expensive. Equipment is expensive. So a lot of community colleges say, it's less costly for us to have classes in English or in History than in medical technology.

So they don't have the incentives to respond.

Part of the answer is tying federal and state subsidies not only to academic completion rates, but to completion rates in high-demand fields. I think it's also funding certain support systems. We have non-completion rates in community colleges and in the non-elite four-year colleges that are very high, huge resources are wasted, people spend years and years and come out with no credential at all. There are a lot of different reasons for that. Part of it is that their academic preparation is too weak; part of that is the family situation; but part of it is the institutions themselves that aren't responding that are keeping class sizes limited for various reasons. But there's a set of services that could improve completion rates, such as remediation. There's a large amount of remediation, especially at community colleges, that doesn't get done well. And lessons get stuck in remediation and never leave. We want to encourage these institutions to, first, rethink some of their requirements. Maybe not everybody needs to pass “Algebra I” to get an associate's degree. Secondly, remediation can be better integrated into actual occupation and training classes. There's a program out of the state of Washington called IBEST that has done this, where remediation instead of being separate and walled off, it's integrated into the occupational training classes. So people are more motivated to do it and they only have to remediate what they really need to know. Now, how well it really works

and whether it can be replicated in other contexts, we need to find out. But at least that's the kind of thing we need to see more of: helping people succeed in getting credentials that the labor market really rewards. We don't have any magic bullet to do that, but we can probably make some progress and do better than we're doing now.

GPPR: What role should states play in employment policy and programming versus the federal government?

HH: I don't think it's either/or. I actually think states have an important role to play and a lot of them are playing that. If you look at the last decade, mostly before the recession, federal policy in the workforce area was fairly moribund. Nothing came out of it. And yet, a lot of the states took the lead in doing some very innovative things, and building these kinds of systems of partnerships between industry associations, educational providers, and intermediaries providing services to workers. The recession has hurt that effort because now the states are so pressed for cash that they're cutting back on a lot of the programs that they established. But there's an important role for the states to play. The states often have the data that you need to figure out what the labor market really needs. The feds can play a supportive role in terms of providing resources, providing the incentives to do that.

GPPR: Are there other examples of state innovations that you think are particularly interesting or exciting?

HH: States have built what we call "sectoral programs," which are these partnerships between particular industries, very often health care because that's the one generating a lot of jobs, and training institutions, often community and technical colleges or other providers and intermediaries, to help bring in the workers. Pennsylvania was probably the first and generated probably the most extensive system of industry partnerships under Governor Rendell. Wisconsin, Washington have followed suit. The state of Kentucky did some very interesting things, in terms of taking their technical college system and trying to align it with the labor market, but also make it more accessible to lower income populations. The state of Michigan did something very different. During the recession, they had a program called No Worker Left Behind. There are a lot of fragmented pots of federal money, and part of the problem is this fragmentation of all the federal pots, what people call siloing. The state of Michigan took all those pots, and said we're going to take all this money and spend it on retraining dislocated workers from the auto industry, of whom there are a lot, in '08 and '09. They sent a

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very large number of dislocated adult workers to community college for some kind of retraining. Now we don't yet have evaluation evidence on how successful that effort was and we need that evaluation evidence. But just the fact that it was possible for the state to organize this kind of a program at that level of scale was very interesting and very encouraging. Whether that was the right approach or not just shows you that a state can figure out how to pool those resources and use them for something potentially productive.

“It’s interesting because governors get this, and often state legislators get it and a lot of the state-level environments are much less partisan and much less polarized. They’re less ideological; they’re more practical.”

When you look around the country you do see quite interesting and impressive things that happened at the state level. It’s interesting because governors get this, and often state legislators get it and a lot of the state-level environments are much less partisan and much less polarized. They’re less ideological; they’re more practical. Employers have a sense that they need economic development. Too often, economic development has meant states bidding against each other for the same business. That’s not a productive activity. But when you build these systems of providing assistance to employers that are generating jobs, trying to get them more trained

workers, that’s not the usual zero-sum bidding game.

GPPR: One particular federal question is public transportation. You’ve written about access to public transportation and how that can affect employment opportunities. What is the role of the federal government versus state government, specifically in ensuring access to public transportation for workers?

HH: In some sense, transportation is really a metropolitan issue. Labor markets have become very metropolitan in nature. There are centers of job creation going on in metropolitan areas, often in downtowns if it’s booming. Sometimes certain parts of the hiring come from suburbs. And what you want to do is make sure that all workers have access to jobs, no matter where those jobs are located. Is that a federal responsibility? Is that a state responsibility? Again, I think the feds can play a supportive role, but a lot of the action has to occur not even at the state level, but at the regional or metropolitan level.

So, it’s not necessarily going in and building subway lines all over the place, or light rail—although that could certainly help. Metropolitan areas are different from each other. The solution in the Washington DC region might be different than the solution in Los Angeles, or some other area. So you need these regional entities to figure out how to improve access. Often, it involves coordination between the workforce agencies and these regional governance boards that

create transportation. For instance, in Washington DC, in our region, the District has its own workforce institutions, and so does each county. So Montgomery County in Maryland, and Fairfax and Loudoun counties in Virginia, they have booming economies, but they have separate institutions from Prince George's County or the District. So you could put in transportation systems, but education, workforce and housing policy might also need to be considered as part of the overall picture. Transportation is a piece of a larger puzzle that needs to be worked out at a regional level, with federal and state support.

There have been some interesting grant programs that have come out of the US Department of Housing and Urban Development to encourage some of that activity. It's not like we have one model, but it's the mindset that the metropolitan region is the right level of activity and that's what we have to support, for them to come up with the right solutions.

GPPR: One of the themes I've taken from this conversation is the amazing interconnectivity between different policy areas that really have to come together.

HH: I think that's right. That's not a new insight, it's just really hard to do. If you think of these federal and state and local agencies and bureaucracies, they have their own lives, they have their own incentives. What's the incentive of a local school administrator to work hand-in-hand

with people from their workforce agency or their transportation agency? It's really very limited. Their bread is buttered by their agency and their incentives. It's very hard to get people to work across those silos. But that's the kind of activity that needs to take place

GPPR: Thank you so much, Professor, for your valuable time and insight.

“It's very hard to get people to work across those silos. But that's the kind of activity that needs to take place.”

RESPONDING TO CHALLENGING ECONOMIC TIMES: The American Recovery and Reinvestment Act and Subsidized Employment in Mississippi

By Ed Sivak

ABSTRACT

Ed Sivak is the founding Director of the Mississippi Economic Policy Center. An alumnus of the Georgetown Public Policy Institute, Sivak has spent the last ten years engaging in policy analysis, advocacy, and community development activities in Mississippi. On the issue of workforce development, he is currently a steering committee member of the Delta Workforce Collaborative and a member of the Mississippi State Sector Strategy Team.

As part of the American Recovery and Reinvestment Act, Congress set aside \$5 billion to establish the Temporary Assistance for Needy Families Emergency Contingency Fund (TANF ECF) to address the challenges of increasing welfare caseloads. A number of states accessed the funds to implement a subsidized employment program. Using demographic information on program participants and wage records from the state's unemployment insurance system, this study examines the wages of participants in Mississippi's program before and nine months after the intervention. Initial findings from cross tabulations suggest that wages and labor force attachment increased for program participants across all demographic groups. Recognizing the limitations of generalizing from this approach, this article is the first in a series of in-depth reviews of the program. Should the initial findings hold under increasingly rigorous analysis, similar programs merit consideration in future debates concerning the funding priorities of federal workforce development policy.

I. INTRODUCTION

As part of the American Recovery and Reinvestment Act (ARRA) of 2009, Congress set aside \$5 billion to establish the Temporary Assistance for Needy Families (TANF) Emergency Contingency Fund (ECF). The Emergency Contingency Fund provided financial resources to the states on a reimbursement basis to create new programs and to supplement efforts to meet rising costs associated with increasing welfare caseloads. Specifically, the ECF reimbursed states for 80 percent of the increased costs in three areas associated with serving families as a result of the economic downturn (Falk 2010).

The three areas included increased basic assistance costs, non-recurrent short-term aid, and subsidized employment. States were eligible to apply for reimbursement of cash assistance payments as long as the states demonstrated caseload levels in fiscal year 2009 or fiscal year 2010 that were higher than in fiscal year 2007 or fiscal year 2008. Non-recurrent short-term aid essentially amounted to a one-time payment not exceeding a four-month period of time. Subsidized employment represented a direct payment to employers to subsidize wages of participants in public or private sector employment.

This article examines the effects of the ARRA funded subsidized employment approach in the state of Mississippi from January 1, 2010 to September 30, 2010. Titled the Mississippi Subsidized Transitional Employment

Program and Services (MS STEPS), the program served 3,236 low- and moderate-income individuals with at least one dependent. Drawing from unemployment insurance records provided by the Mississippi Department of Employment Security, this paper compares the quarterly wages of the participants by race, gender, educational attainment, geography, and program success before and after participating in MS STEPS. Using cross tabulations, the study finds that, on average, the quarterly wages increased by \$952 for the program participants nine months after the program ended. Additionally, wage gains occurred across all demographic groups.

It is important to note that the findings from the cross tabs reported here do not establish causal relationships and represent an initial stage of analysis. The study neither uses an experimental design with random assignment nor more rigorous regression techniques, which limits the generalizability of the results. At the same time, the findings provide interesting observations about an overall rise in average quarterly wages of the MS STEPS participants several months after the program ended and warrant a more robust review of the program.

Subsidized Employment Strategies in the Twentieth Century

Over the last century, lawmakers have turned, on numerous occasions, to job training and public employment programs to increase the skills of hard-to-employ individuals and to respond

to deep and protracted unemployment resulting from economic recessions. Perhaps the most well-known of the programs was the Works Progress Administration (WPA). At its peak in 1938, the WPA employed over 3.3 million individuals who worked directly for and received their paycheck from the federal WPA. Approximately three-quarters of the participants were involved in construction projects that included road construction, water and sewer systems, parks, recreational facilities, and public buildings. For the most part, WPA employees were either laborers with few skills or former factory workers. The remaining WPA employees were engaged in public service activities that included sewing, school lunch, survey work, and public health activities (Levine 2010).

Two decades passed following the expiration of the WPA before the United States would again pursue human capital development policies directed at job creation. In the 1960s President John F. Kennedy signed the Manpower Development and Training Act (MDTA) into law (Kremen 1974). The Act sought to address the mismatch between the rapidly evolving workforce needs of industry arising from technological developments and the existing skills of a labor force that were becoming obsolete (Liles 1972). Additionally, the social climate of the 1960s paved the way for workforce policies and programs that addressed structural barriers to employment, such as race, and poverty alleviation.

Following the MDTA, interest in subsidized employment programs

subsided until the economic challenges of the 1970s prompted lawmakers to review past practice. The Comprehensive Employment and Training Act (CETA) passed in 1973. CETA sought two primary objectives. First, the program aimed to connect individuals facing barriers to employment – particularly low-income and minority individuals with low levels of educational attainment – with the training, work experience, and human capital development needed to compete for jobs. Second, by creating jobs in the public sector through subsidized employment opportunities, the policy tried to offset the effects of high unemployment (Mirengoff and Rindler 1978).

“The Act sought to address the mismatch between the rapidly evolving workforce needs of industry arising from technological developments and the existing skills of a labor force that were becoming obsolete.”

The two objectives waxed and waned in importance throughout the 1970s. While the program initially was created to address the structural challenges of the hard-to-employ in an evolving economy, it changed mid-decade in response to the recession to focus more intentionally on job creation. By the end of the decade, the program’s emphasis reverted back to policies that trained disadvantaged workers (Bassi 1983). The shifting goals, program shortcomings, and political fallout from high profile cases of fraud in the

program led to the end of CETA and a restructuring of workforce policy yet again in 1982 (Dean 1978; Shaffer 1980).

As the CETA programs wound down in the early 1980s, evaluations of the Act revealed mixed findings. Descriptive studies showed that earnings and labor force attachment increased while the use of public assistance decreased (GAO 1982). More rigorous studies that used multiple regression techniques also found that CETA participants' earnings increased: women saw increases in earnings and low-income individuals realized gains two years post-training (Bassi 1983). One explanation for increases in earnings among women was that the CETA experience socialized women to the world of work; another was that increased earnings were associated with increased employment opportunities and more hours of work. Men, on average, experienced decreases in earnings. Researchers attributed earnings decreases among male CETA participants to stigma among employers. Whereas female CETA participants were considered motivated and, as such, prime candidates for entry-level jobs, male participants were viewed, when coming from situations of previous unemployment, as disadvantaged and lacking skills when hiring decisions were being made (Dickinson, Johnson, and West 1987).

Other studies of male CETA participants, using a different measure of success, cited slight gains in employment. Employing logistic regression techniques,

researchers looked at the probability of employment following classroom and on-the-job training. They found evidence of increased probabilities of gaining and maintaining employment among men who participated in the classroom training components of CETA relative to those who participated in on-the-job training (Card and Sullivan 1988).

In the end, CETA's promise as a "stepping stone" to private sector employment never materialized. Most people who transitioned to work from a CETA-subsidized job did not go into the private sector. In fact, among the CETA clients who moved into an unsubsidized job upon completing the program, there were lower rates of private sector labor force attachment post-program than before the intervention (GAO 1982).

Nearly all of the studies conducted on workforce training and subsidized employment programs lacked the rigor of experimental design methods with random assignment. In the absence of experimental designs, controls for selection bias and associated challenges in specifying a model remained elusive and difficult to overcome (Card and Sullivan 1988). The paucity of evaluations using this experimental design approach served as a defining limitation in trying to determine the effects of MDTA and CETA interventions on employment and earnings outcomes for program participants, raising questions about the overall effectiveness of the programs (Ashenfelter and Card 1985).

The National Supported Work Program (NSWP), managed by the Manpower Demonstration Research Corporation from 1976-1979, transcended both the goal ambiguity of CETA and existing workforce training program evaluation limitations. Clearly stated, the goal of the National Supported Work Program was to provide supervision, work experience, a peer group, and a work plan of gradually increasing intensity to very hard-to-serve groups of people – welfare recipients (Aid to Families with Dependent Children or AFDC), ex-addicts, ex-offenders, and disadvantaged youth. It also quieted ongoing critiques of workforce training evaluations by using an experimental design with random assignment to assess and identify the treatment effects of the program. Participants were placed on worksites in a variety of industries with NSWP subsidizing wages, supervision costs, equipment, and supplies (Manpower 1980).

Analysis of the projects revealed that the program was most effective in serving the cohort of women receiving assistance through AFDC (Blakeslee and Evanson 1982). Among the AFDC group, less than 33 percent had a high school diploma, 95 percent were Hispanic or black, and their average stay on welfare prior to the program was 8.5 years. Despite these normally limiting demographics, participants reported more stable employment, higher earnings, and lower rates of welfare use 27 months after the program ended compared with the control group. The finding is most striking when juxtaposed with the

fact that many of the women who obtained employment experienced substantial losses to their welfare benefits. Also of importance, the supported work program worked well when unemployment was high. Employers were less willing to hire potentially “risky” individuals, but, with knowledge of the program, employers could have been open to giving supported work participants in a structured program a chance, versus those with similar characteristics of distress not affiliated with any intervention program (Manpower 1980).

“The paucity of evaluations using this experimental design approach served as a defining limitation in trying to determine the effects of MDTA and CETA interventions on employment and earnings outcomes for program participants, raising questions about the overall effectiveness of the programs.”

Eight years after the conclusion of the program, the AFDC group continued to exhibit positive outcomes. Earnings gains from earlier years remained statistically significant and of meaningful size. As a result, the cumulative earnings associated with the Supported Work Program intervention eclipsed the costs of training the AFDC participants in year eight (Couch 1992). The findings from the evaluations of the National Supported Work Program suggested

that a well-targeted work experience and training program can improve the labor force attachment and wage prospects over time for hard-to-serve populations.

Increases in post-program earnings were consistent with the findings in other studies such as those of an On-the-Job Training (OJT) program with welfare recipients in Maine and an OJT program for low-income adults receiving services through the Job Training Partnership Act (JTPA) (Auspos, Cave, and Long 1988). The earnings increases realized under the JTPA program were recognized for their magnitude among individuals receiving welfare (Bloom 2010). The program's success among hard-to-serve populations lies in the acquisition of both hard skills, namely those directly related to one's competency in performing a job's specific tasks, and soft skills such as working on a team, arriving at work on time, self-confidence, and network development (Bartik 2002).

“The findings from the evaluations of the National Supported Work Program suggested that a well-targeted work experience and training program can improve the labor force attachment and wage prospects over time for hard-to-serve populations.”

Throughout the last century, a number of subsidized employment programs sought to build the skills of disadvantaged workers and increase labor demand during periods of high

unemployment. Nearly all of the programs attempted to accomplish these goals by subsidizing work opportunities with public sector employers. Evaluations of varying rigor revealed that hard-to-serve populations, specifically very low-income women receiving public assistance, experienced positive, long-term gains in earnings post-intervention.

Mississippi Subsidized Transitional Employment Program and Services

Thirty-eight states submitted an application for the reimbursement of a subsidized employment program with expenses funded by ARRA through the TANF ECF. While previous subsidized employment programs, such as the WPA and CETA, targeted public sector employment opportunities, Mississippi explicitly designed its program solely for private sector employers and nonprofit hospitals. Mississippi accessed \$27.8 million to assist with rising unemployment among its low-income residents through the TANF ECF. Of the \$27.8 million, 92.6 percent of the award went toward a new subsidized employment program, MS STEPS (Falk 2010).

MS STEPS operated as a joint partnership between the Mississippi Department of Human Services (MDHS) and the Mississippi Department of Employment Security (MDES). In the implementation of the policy, MDHS served as the lead state agency in the procurement of the TANF ECF reimbursement dollars from the US Department of Health

and Human Services. Once MDHS received the TANF ECF money, it was transferred to MDES to subsidize the wages of program participants through direct payments to their employers.

In total, 68 public administrators were hired to operate the program. MDES also relied on its existing Workforce Investment Network (WIN) Job Center staff familiar with the On-the-Job Training program to recruit employers to participate in the program and to establish hiring agreements. Private sector, nonprofit sector, and public hospitals were eligible to participate in the program as long as they were in good standing with MDES, existing labor laws, and Mississippi's procurement policies. In exchange for receiving the employee referral and the wage subsidy, employers needed to commit to retaining the MS STEPS participants after the six-month training period.

Interested individuals applied to participate in MS STEPS in one of the state's WIN Job Centers. Qualifying individuals identified through case management were also referred to the program. Given the TANF objectives of working with families with children in economic distress, MDHS caseworkers specifically targeted Supplemental Nutrition Assistance Program (SNAP) and TANF clients to participate in the program and made intentional referrals to the WIN Job Center (Pavetti, Schott, and Lower-Basch 2011). An individual was considered eligible for the MS STEPS program if he or she was a US citizen and resident of Mississippi, had at least

one dependent under the age of 18, had a family income below 250 percent of the federal poverty level, and was not currently working. Applicants received case management, job search assistance, and skills assessment (Staples 2011; McMorris 2011; Butler 2011).

Once an agreement was established between MDES and an employer and a placement was made, the employer received a monthly subsidy for the wages paid to the MS STEPS employee for the duration of the program, as long as the employee remained hired. The wage subsidy was designed to begin as a full wage subsidy followed by monthly or bi-monthly decreases over a period of six months. Table 1 illustrates the wage subsidy schedule.

To receive payment, invoices were submitted to MDES for each month of work covered under the program. Once processed, payments were remitted directly to the employers from MDES. Of the initial target of 3,500 individuals, 3,236 individuals were placed in the program.

II. CONCEPTUAL MODEL AND HYPOTHESES

With more than 3,000 MS STEPS participants and research strongly suggesting that subsidized employment offers a means for placing hard-to-serve individuals in jobs, a question on wages over time emerges.

Specifically, what were the differences in average quarterly wages before and after the program was completed among program participants with different characteristics? To

Table 1.
MS STEPS Employer Wage Subsidy Schedule per Employee by Month

Month 1	100%
Month 2	100%
Month 3	75%
Month 4	50%
Month 5	50%
Month 6	25%

Source: Mississippi STEPS presentation for Agency for Children and Families

answer this question, the functional relationship between wages and labor force attachment and educational attainment, race, gender, region of state, and program completion status can be expressed as:

Wages = f(having at least a high school education, race of participant, gender of participant, region of the state, program completion status)

Given the success of past subsidized employment programs among individuals experiencing significant barriers to employment found through rigorous evaluations, I hypothesize that MS STEPS participants, particularly those who are most disadvantaged such as African Americans, women, and participants with the lowest educational attainment, will experience wage gains, on average, that are higher than if the groups had not participated in the program at all.

Based on human capital theory, I also hypothesize that as educational attainment rises, the likelihood that a STEPS participant experiences higher

post-program wages increases. The basic tenets of human capital theory state that one's employment and earnings hinge on one's productivity. Productivity, in turn, is affected by one's educational attainment and training. Individuals with high levels of education and training will demonstrate high productivity and, by extension, increase the likelihood that they will be employed. In contrast, low probabilities of employment among individuals are the result of low levels of human capital development (Ting 1991; Dickinson, Johnson, and West 1987). Over time, education and training appear to generate returns on the investment among former welfare recipients. For example, seven to nine years after receiving education and training for jobs, welfare recipients that engaged in human capital development activities outperformed other welfare recipients that only participated in labor force attachment strategies (Blank 2002). Numerous other studies found that higher levels of educational attainment positively affected the

economic outcomes of people leaving welfare for employment and experienced higher earnings (Sandefur and Cook 1998; Holzer 2000; Vartanian and McNamara 2000).

Other factors not accounted for by human capital theory also merit discussion. Specifically, the choices that one makes regarding training, tenure, and overall work experience do not always coincide with the actual manner in which the labor market functions. While a person may be hired and then remain on the job due to his or her skills, he or she may also be hired as a result of organizational structures, networks, and other characteristics of the job seeker. Furthermore, race and class also affect earnings (Tomaskovic-Devey, Thomas, and Johnson 2005).

Taking into account these additional factors that can affect hiring decisions, I hypothesize that STEPS participants who were from a county in the Mississippi Delta will be less likely to experience wage increases than in other regions of the state. The Mississippi Delta is a region located on the western side of the state consisting of the counties near the Mississippi River. Many of the counties are rural and majority minority with large African American populations. Holmes County, for example, has the highest African American population rate of the Delta counties with a rate of 83.4 percent. Additionally, individuals residing within these counties experience wide differences in employment outcomes by race. Whereas white unemployment rates are among the

lowest in the state within the Delta, African American unemployment rates are among the state's highest within the region. The region is also known for its high rates of poverty and historical underinvestment. According to the 2010 Decennial Census, two of the 10 poorest counties in the country are in the Mississippi Delta. In the Mississippi Delta, TANF participation is also higher among African Americans than in other communities with similar demographic characteristics (Parisi, et al. 2003).

Program status is a measure of possible unobserved obstacles or assets. For example, a person who completes the program may have a stronger support network than someone who quits. Likewise, someone who is terminated from the program may have fewer soft or hard skills that are applicable to the specific position in which he or she was placed than someone who completes the program. Individuals, who either completed the six-month training cycle or remained in good standing with the program when the funding ran out, experienced larger gains in earnings than individuals who quit or were terminated from the program.

III. DATA DESCRIPTION

For this project, the Mississippi Department of Employment Security provided administrative data on all participants in the Mississippi STEPS program. To build the data set, MDES merged demographic and program data collected from participants in the MS STEPS program with quarterly

wage information that was available from the unemployment insurance wage files managed by the agency. Post-program quarterly wage data were also pulled from the unemployment insurance wage files by MDES and matched with the MS STEPS participant files via social security numbers. Once matched, MDES removed the social security numbers, replaced them with a unique record identifier, and provided the data set in a spreadsheet for external analysis. The unit of analysis is the participants that enrolled in the MS STEPS program, and the sample consists of 2,878 observations. Table 2 provides the sample variables along with the definition and respective descriptive statistics.

III. DATA LIMITATIONS

A number of limitations exist in the data. First, not all program participant files could be linked with the wage files. Since the participant demographic files were linked to the administrative wage files by social security numbers, participants who did not have a social security number, such as legal immigrant workers, were not matched and do not turn up in the sample. Of the 3,236 participants for whom demographic information was collected, only 2,876 have both the demographic information on the participant and quarterly wage information. In addition, wage files may not capture all wages earned. For example, individuals living in DeSoto County, a Mississippi county within the Memphis, Tennessee, commuting

zone may work for employers in Memphis. For unemployment insurance purposes, wage data for these participants may not be reported in Mississippi; it may be reported in Tennessee. Since the Mississippi Department of Employment Security is the source of the data for this project, participants in border counties, may not have complete wage information.

Second, the program status variable has 113 observations for which individuals had conflicting information. For example, an individual may have been coded in the data set as having completed the program and having quit or been terminated from the program. To address the limitation, the 113 conflicting observations are dropped from the analysis on the program status variable, bringing the total number of observations reviewed for program status to 2,765.

Third, the study does not employ an experimental design with random assignment. If differences are found in wages before the MS STEPS program and after the MS STEPS program, one will not be able to make the statement that the MS STEPS program caused the increase in wages. A quasi-experimental design may allow us to make some inferences about how different independent variables affect the dependent variables; however, at most, the relationship will be suggestive.

**Table 2.
MS STEPS Employer Wage Subsidy Schedule per Employee by Month**

Dependent Variables	Definition	Mean
Quarterly wages	Quarterly Wage 9 months Post-Program Note: Intervention occurred 1/1/10 – 9/30/10	\$2,530
Independent Variables	Level of Measurement / Definition	Percent of Sample
Educational Attainment	Less than high school = 1	Less than high school: 19.7%
	High School Diploma or GED = 2	High School Diploma or GED: 49.6%
	Some College = 3	Some College: 20.4%
	Associate's Degree = 4	Associate's Degree: 5%
	Bachelor Degree or higher = 5	Bachelor Degree or higher: 3.3%
	Not Reported = 6	Not Reported: 2%
Race	African American = 1	African American: 64.7%
	White = 2	White: 31.3%
	Other = 3	Other: 0.9%
	Not Reported = 4	Not Reported: 3.1%
Race	African American = 1	African American: 64.7%
	White = 2	White: 31.3%
	Other = 3	Other: 0.9%
	Not Reported = 4	Not Reported: 3.1%
Gender	Male = 1	Male: 25%
	Female = 2	Female: 74.3%
	Not Reported = 3	Not Reported: 0.7%
Region	Delta County as Defined by the Delta Revitalization Task Force = 1	Delta: 26.4%
	Other county = 0	Other: 73.6%
Program Status	Completed six months of training = 1	Complete: 51.6%
	Still enrolled when program ended, but did not complete program = 2	Partial Complete: 10.3%
	Individual quit or was terminated from program = 3	Quit or was terminated: 38.2%

IV. ESTIMATION STRATEGY

To address the research questions, a longitudinal study that employs a quasi-experimental before and after time series design is used. Using cross tabulations, the research examines the wages of the participants before participating in the MS STEPS program (time 1) and wages of the

participants after participating in the program (3 quarters after the program, time 2). There is not a control group, so the basis for comparison is the pre-treatment wages and the post-treatment wages. Since random assignment did not occur prior to the start of the MS STEPS program, a true experimental design could not be conducted.

Table 3.
Cross Tabulations for MS STEPS Participant Wages Pre- and Post-Intervention

	Average Quarterly Wages Median Quarterly Wages	
	1 Quarter before MS STEPS (Q4 2009)	3rd Quarter after MS STEPS (Q2 2011)
Overall Sample	\$1,578 \$0	\$2,530 \$1,810
Educational Attainment		
Less than High School	\$1,324 \$0	\$2,068 \$1,271
High School Diploma or GED	\$1,520 \$0	\$2,499 \$1,700
Some College	\$1,394 \$0	\$2,606 \$2,120
Associate's Degree	\$2,046 \$0	\$3,433 \$3,093
Bachelor's Degree or Higher	\$2,755 \$10	\$4,230 \$3,589
Race		
African American	\$1,318 \$0	\$2,201 \$1,525
White	\$1,945 \$0	\$3,178 \$2,563
Other	\$964 \$0	\$3,784 \$3,342
Gender		
Male	\$2,204 \$0	\$4,028 \$3,690
Female	\$1,287 \$0	\$2,021 \$1,348
Region		
Delta	\$1,189 \$0	\$1,858 \$1,108
Other	\$1,639 \$0	\$2,771 \$2,062
Program Status		
Complete	\$1,706 \$0	\$2,990 \$2,623
Partially Complete	\$1,456 \$0	\$3,309 \$2,840
Quit or Terminated	\$1,305 \$0	\$1,644 \$119
N=2,876, educational attainment, race, gender, region		
N=2,765 program status		

Note: Average quarterly wages are listed first; median quarterly wages are listed below.

V. RESULTS

This study looks at cross tabulations between wages and the independent variables listed. While the cross tabulations suggest certain relationships, one cannot use them to establish causality or statistical relationships between two variables. Additionally, another limitation of this approach includes the fact that one cannot rule out the effect of other factors on wages. Table 3 provides the cross tabulations between wages and educational attainment, race, gender and region.

Average Wages

Prior to the intervention, the average quarterly wage of the MS STEPS participants was \$1,578. In the third quarter, post-intervention, the quarterly wage had risen to \$2,530 for the sample. By educational attainment, on average, quarterly wages increased between 53.5 percent and 86.9 percent for participants. While average wage increases were largest for individuals with bachelor degrees, the rate of increase was the smallest of all the educational attainment categories. The rate of increase was largest for individuals with some college. If individual participants with some college have a credential, the finding could be consistent with studies that show that a tipping point exists, whereby adult students experience the largest wage gains of any category of educational attainment with one year of post-secondary training and a credential (Prince and Jenkins 2005).

Table 2 shows that 96 percent of participants in the sample were either African American or white. On average, wages for African Americans participating in MS STEPS rose by \$883 dollars. For whites, average wages nine months after participating in the program rose by \$1,233. The differences in the wage increases were consistent with the literature citing wage disparities between African Americans and whites in the South due to differences in economic opportunities in the communities where concentrations of both races occur (Lichter 1989).

Average quarterly wages for male participants were higher than female participants, both by dollar amount and by rate of change. One possible explanation for the differences could be in the referral patterns of the program. Nearly three-quarters of the sample were women. With Mississippi Department of Human Service case workers that typically work with very low-income women referring individuals to MS STEPS, female participants could have been more likely to have lower skills than male participants in the program.

Consistent with the literature, participants from the Delta had lower wage increases by dollar and by rate of change (Parisi, et al. 2003). Delta participants experienced quarterly wage increases of 53.9 percent, or \$669. Participants from other regions in the state had average quarterly increases of 69.1 percent, or \$1,132. At the same time, despite coming from a region with many socio-economic challenges,

participants still experienced average quarterly wage gains of more than 50 percent.

The average wage increases differed markedly based on whether or not a program participant completed the MS STEPS program. MS STEPS participants who were still involved with the program when it ended, but did not finish six months of training, experienced the largest average quarterly gains, from \$1,456 to \$3,309.

“Among all of the variables examined, average quarterly wages increased for MS STEPS participants. Gains were highest by percentage increase for participants of a race other than white or black, participants who completed the program and those who were still attached to the program when it ended, males, and participants with some college.”

Next, participants who completed six months of training saw their average quarterly wages increase by \$1,284. The difference between the two increases suggests that subsidized wage programs may not require six months of public investment to still have the desired effect of wage increases among participants. Finally, for individuals who quit or were terminated from the program, average quarterly wage gains were the lowest for any of the groups examined among the selected variables. Not quitting or being fired appeared essential for realizing large average

quarterly wage gains nine months after the program ended.

Among all of the variables examined, average quarterly wages increased for MS STEPS participants. Gains were highest by percentage increase for participants of a race other than white or black, participants who completed the program and those who were still attached to the program when it ended, males, and participants with some college. The lowest average quarterly wage gains were for individuals that either quit or were terminated from the program, followed by individuals with less than a high school diploma and individuals from the Delta.

Median Wages

A review of median wages shows that more than half of the sample (1,518 participants) was out of work three months before the start of the MS STEPS program and had no earnings. Nine months after the program ended, the number of participants who were not attached to the labor force had dropped to 1,019. While any number of factors, including an improving economy, could have explained the increase in employment outcomes among MS STEPS participants, the findings around labor force attachment suggest that the program could have, in part, improved the overall job prospects of the participants.

VI. AREAS FOR FUTURE RESEARCH AND IMPLICATIONS

This article marks the first in a series of increasingly in-depth reviews of the Mississippi STEPS program. Initial findings suggest that participation in the MS STEPS program may have contributed to increases in labor force attachment and quarterly wages nine months after the program ended. At the same time, as mentioned in the article, the cross tabulations are limited in their ability to establish relationships. Subsequent studies that employ multiple and logistic regression models using wages and labor force attachment as dependent variables will serve to test whether or not statistically significant relationships exist between the variables. Parsing out differences in wages and labor force attachment following the subsidized employment intervention among TANF and SNAP participants and all other individuals will also yield information about the program's effect on hard-to-serve populations.

Over the last one hundred years, subsidized employment has been applied in a variety of settings and under a variety of economic conditions. Developing strategies for connecting hard-to-serve individuals to the labor force in challenging economic times remains an important goal as the nation continues to experience a slow recovery from the 2007 recession. If programs like MS STEPS can demonstrate effectiveness on reemployment, then it merits consideration as a priority

in the future reauthorization of the Workforce Investment Act and TANF in an environment of increasingly scarce federal resources for workforce development.

REFERENCES

- Auspos, Patricia, George Cave, and David Long. *Maine: Final Report on the Training Opportunities in the Private Sector Program. Program Evaluation*, New York: MDRC, 1988.
- Ashenfelter, Orley, and David Card. "Using the Longitudinal Structure of Earnings to Estimate the Effect of Training Programs." *Review of Economics and Statistics*, 1985: 648-660.
- Bassi, Laurie, J. "The Effect of CETA on the Postprogram Earnings of Participants." *Journal of Human Resources* 18, no. 4 (1983): 539-556.
- Bartik, Timothy. "Poverty, Jobs and Subsidized Employment." *Challenge* 45, no. 3 (2002): 100-111.
- Blakeslee, Jan, and Elizabeth Evanson. "Supported Work: End of the era of social experiments." *IRP Focus (University of Wisconsin-Madison Institute for Research on Poverty)* 5, no. 3 (1982): 1-7.
- Blank, Rebecca M. "Evaluating Welfare Reform in the United States." *Journal of Economic Literature* XL (2002): 1105-1166.
- Bloom, Dan. *Transitional Jobs: Background, Program Models, and Evaluation Evidence*. White Paper, New York: Manpower Demonstration Research Corporation, 2010.
- Board of Directors Manpower Demonstration Research Corporation. *The Final Report: Summary and Findings of the National Supported Work Demonstration*. Report, New York: Manpower Demonstration Research Corporation, 1980.
- Butler, Vera, interview by Ed Sivak. *Bureau Director I Mississippi Department of Human Services* (December 7, 2011).

- Card, David, and Daniel Sullivan. "Measuring the Effect of Subsidized Training Programs on Movements In and Out of Employment." *Econometrica* 56, no. 3 (1988): 497-530.
- Couch, Kenneth. "New Evidence on the Long-Term Effects of Employment Training Programs." *Journal of Labor Economics* 10, no. 4 (1992): 380-388.
- Dean, Nathaniel. "Psst! Wanna Good Job? Scandal Startles Miami." *Time*, July 24, 1978: 18.
- Dickinson, Katherine P., Terry R. Johnson, and Richard W. West. "The Impact of CETA Programs on Components of Participants Earnings." *Industrial and Labor Relations Review* 40, no. 3 (1987): 430-441.
- Falk, Gene. *The TANF Emergency Contingency Fund*. Policy Brief, Washington: Congressional Research Service, 2010.
- GAO. *CETA Programs for Disadvantaged Adults-What Do We Know About Their Enrollees, Services, And Effectiveness?* Government Evaluation, Washington DC: U.S. General Accounting Office, 1982.
- Holzer, H.J. *Career advancement prospects and strategies for low-wage minority workers*. Washington, DC: Urban Institute, 2000.
- Kremen, Gladys Roth. *MDTA: The Origins of the Manpower Development and Training Act of 1962*. 1974. www.dol.gov/oasam/programs/history/mono-mdtatext.htm (accessed November 20, 2011).
- Levine, Linda. "Job Creation Programs of the Great Depression: the WPA and the CCC." CRS Report for Congress; Washington, DC: Congressional Research Service, 2010.
- Lichter, Daniel. "Race, Employment Hardship, and Inequality in the American Nonmetropolitan South." *American Sociological Review* 54, no. 3 (1989): 436-446.
- Liles, W. Pierce. "The Battle Against Skill Obsolescence." *Growth and Change* 3, no. 2 1972: 16-22.
- McMorris, Richard, interview by Ed Sivak. *Deputy Executive Director Mississippi Department of Employment Security* (November 17, 2011).
- Mirengoff, William, and Lester Rindler. *CETA: Manpower Program under Local Control*. Washington, DC: National Academy of Sciences, 1978.
- "MS STEPS informational handout."
- Parisi, Domenico, Diane K. McLaughlin, Steven Michael Grice, Michael Taquino, and Duane A. Gill. "TANF Participation Rates: Do Community Conditions Matter?" *Rural Sociology* 68, no. 4 (2003): 491-512.
- Pavetti, LaDonna, Liz Schott, and Elizabeth Lower-Basch. "Creating Subsidized Employment Opportunities for Low Income Parents: The Legacy of the TANF Emergency Fund." *Center for Law and Social Policy*. February 16, 2011. <http://www.clasp.org/admin/site/publications/files/Subsidized-Employment-Paper-Final.pdf> (accessed November 4, 2011).
- Prince, D. and D. Jenkins. *Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Statewide Longitudinal Tracking Study*. Columbia University, 2005.
- Sandefur, G.D., and S.T. Cook. "Permanent Exits from Public Assistance: The Impact of Duration, Family and Work." *Social Forces* 77, no. 2 (1998): 763-787.
- Shaffer, Ron. "FBI Probes Use of CETA Funds for 'Happy Hour'." *Washington Post*. May 22, 1980: A1.
- Staples, Rebekah, interview by Ed Sivak. *Policy Advisor - Governor Haley Barbour* (September 27, 2011).
- Ting, Yuan. "The Impact of Job Training Programs on the Reemployment Probability of Dislocated Workers." *Review of Policy Research* 10, no. 2-3 (1991): 31-44.
- Tomaskovic-Devey, Donald, Melvin Thomas, and Kecia Johnson. "Race and the Accumulation of Human Capital Across the Career: A Theoretical Model and Fixed-Effects Application." *American Journal of Sociology* 3, no 1 (2005): 58-89.
- Vartanian, T.P., and J. M. McNamara. "Work and Economic Outcomes After Welfare." *Journal of Sociology and Social Welfare* 27, no. 2 (2000): 41-77.

ENGINE FOR GROWTH OR DRAG ON PRODUCTIVITY?

The Informal Sector and Domestic Investment in Developing Countries

By Julie Biau

ABSTRACT

Julie Biau completed the Master of Public Policy at the Georgetown Public Policy Institute in 2011, and prepared this thesis as part of the degree requirement. Julie currently works at the World Bank supervising infrastructure projects in Nicaragua, Bolivia, Haiti, and Guyana. She wishes to acknowledge the valuable guidance of her adviser Gillette Hall, and thanks Mike Barker, Andreas Kern, Diana Hinova and Carole Biau for their encouragements and inspiration.

The informal sector accounts for an immense share of income, output, and employment in low- and middle-income countries, providing jobs to over two billion people worldwide (OECD 2009). Nevertheless, the current policy debate is largely biased against informality, with major actors assertively pushing for formalization. Yet, as the informal sector continues to expand, some have asked whether this phenomenon could, in fact, be a lifeboat for poor economies, enabling citizens to engage in more flexible modes of production in the face of institutional constraints. This study addresses a critical knowledge gap by empirically investigating the impact of informal sector size on the economic dynamism of low- and middle-income economies. It hypothesizes that at low income levels, informal sector size has a positive effect on economic dynamism (as measured by domestic investment), but that as economies become richer, they reach a tipping point at which this effect becomes increasingly negative. A fixed-effects panel analysis of 22 developing countries between 1995 and 2006 finds evidence of a non-monotonic relationship between the economic impact of informality and GDP per capita. The effect of informality on domestic investment changes direction with country income level and appears to describe an inverted U-shape, suggesting the existence of an ‘informal sector Kuznets curve.’ These findings call for a more nuanced understanding of the informal sector’s economic repercussions, recommending a two-track approach: low-income countries stand to gain from implementing policies that fuel the informal sector as an engine of growth in the short run, while simultaneously laying the institutional groundwork for a long-run increase in formality.

I. INTRODUCTION

From the favelas of Rio de Janeiro to the busy streets of the Nairobi city center, the ‘informal sector’ is a source of livelihood for millions of vendors, mechanics, domestic workers, bus drivers, and micro-entrepreneurs. Economic activity in developing countries cannot be fully understood without recognizing that an immense share of income, output, and employment is generated outside the formal economy. Broadly defined as small-scale, self-financed activities operating with a low level of organization in an unregulated environment, the informal sector has exploded with increasing levels of globalization and economic openness (Verick 2006). Its contribution to the economy now matches and sometimes outweighs that of the formal sector in many developing countries. In 2009, informal activity accounted for over 80 percent of non-agricultural jobs in Sub-Saharan Africa and South Asia and 58 percent of non-agricultural growth in Ghana (OECD 2009; CUTS 2009). This expansion shows no signs of slowing down. Even with strong economic growth in Southeast Asia and Latin America, rates of informal employment have increased steadily over the past twenty years, with formal employment stagnating in comparison (OECD 2009). Yet, despite the clear economic, political, and social importance of this phenomenon, a knowledge gap remains concerning the impact of informal sector size on macroeconomic outcomes (Gerxhani 1999).

Recently, there has been a renewal of interest in the dynamics of informality, but economists and decision-makers disagree as to whether this phenomenon is a problem to be suppressed or an opportunity to be stimulated. Some experts argue that, due to their small size, informal firms cannot achieve high capital intensity and productivity (Pagés 2010). This view is reflected in declarations by international organizations stressing the urgency of formalizing economies (ILO-WTO 2009). On the other hand, the rising popularity of microfinance initiatives and micro-pension schemes for informal workers casts informality as a force for inclusive economic development. Informal sector jobs can enhance the competitiveness and flexibility of production, allowing workers to find employment in the absence of government support (Misati 2010). The debate is far from resolved and stands to be informed by further quantitative analysis (Schneider and Enste 2000).

The opposing attitudes toward the informal sector are not necessarily incompatible; rather, it is plausible that the informal sector plays a positive role in some countries and a negative one in others. This paper investigates two interrelated questions. First, how does the effect of the informal sector on a country’s economic dynamism vary across different levels of GDP per capita? Second, is there some income threshold at which the direction of this effect is reversed? The analysis explores the impact of informality on economic dynamism with a two-way fixed effects

panel analysis of 22 African, Asian and Latin American countries between 1995 and 2006. The ILO's (2009) measure of informal employment as a share of total employment is used as the independent variable, to proxy for informal activity more generally, and the World Bank's (2010) measure of domestic investment is used as the dependent variable, to capture the notion of economic dynamism.

Intuition would suggest that at very low country income levels, the informal sector should have a positive effect on the economic environment by encouraging alternative modes of production. Past a certain income threshold, however, the obligation to remain informal may begin to limit firm productivity, and the impact of informal sector size on economic dynamism is expected to diminish and become increasingly negative. Consistent with this hypothesis, this paper reveals evidence of a non-monotonic relationship between the economic impact of informality and GDP per capita. The effect of informality on domestic investment changes direction with country income level and appears to describe an inverted U-shape, suggesting the existence of an 'informal sector Kuznets curve.' The findings call for a more nuanced understanding of the economic consequences of the informal sector, which is especially timely given its projected expansion in the wake of the global economic crisis (OECD 2009).

II. LITERATURE REVIEW

Drag on productivity or engine for growth?

Competing theories of the determinants and consequences of informal employment have received varying credence over time. In the academic arena, three schools of thought propose contrasting analyses of informal employment and its economic outcomes.

“The opposing attitudes toward the informal sector are not necessarily incompatible; rather, it is plausible that the informal sector plays a positive role in some countries and a negative one in others.”

On one side of the debate, the *dualist* school perceives informality to be a uniformly negative phenomenon. Dualists assume that at early stages of development the formal sector alone cannot supply enough jobs for a growing labour force, so that informal jobs arise to provide transitory employment for workers unable to find opportunities elsewhere (ILO-WTO 2009). Dualists argue that informality constrains economic growth and productivity through several channels: informal firms limit their size to avoid detection, reducing their ability to achieve economies of scale (Pagés 2010); the uncertainty and lack of property rights associated with the informal context prevents firms from making large-scale investments

(Loayza, Oviedo and Servén 2005); and by escaping taxation, informal firms undermine the government's ability to provide productivity-enhancing public goods (Kauffman, Johnson and Schleifer 1997).

On the other side of the debate, the *structuralist* and *legalist* schools both believe informal employment to be an optimal choice made by rational actors in light of prevailing economic and institutional conditions. Structuralists emphasize the existence of linkages between formal and informal economies in a production system where each sector has comparative advantages based on different factor costs (Schneider 2008). This allows the informal sector to increase the competitiveness of formal firms by providing them with cheap labour (Asea 1996). Legalists present informality as a response to government-induced distortions, arguing that in an overly controlled environment, workers voluntarily opt out from the formal labour market to escape the burden of government regulations, cumbersome bureaucracy, and high transaction costs (see for example De Soto 1989; Loayza 1996; Johnson, Kauffman and Shleifer 1997). Structuralists and legalists expect informality to improve

economic outcomes by creating employment opportunities well-suited to the production structure of labour-abundant poor countries; by fostering competition within highly homogenous informal markets with low barriers to entry; and by offering space for entrepreneurship in the face of constraining government regulations (Potts 2008).

III. CONCEPTUAL FRAMEWORK AND HYPOTHESIS

Motivating an informal sector Kuznets curve

The growing body of employment-based research on the informal sector shows a surprising lack of consensus, with ambiguous prescriptions for policymakers. As expressed by a recent OECD report, “it is unclear whether or not informal employment represents a drag on productivity or could, at least temporarily, be an engine of growth” (OECD 2009). This is the question that this paper seeks to address. Economists lauding the positive attributes of the informal sector and those deploring its pitfalls could both be correct; their competing theories may simply apply to different kinds of economies. Specifically, a dialectical argument could consider legalist and structuralist theories to be most relevant to low-income countries, and dualist predictions to have greatest applicability in a middle-income context.

At low-income levels, it is plausible that informality stimulates an

“Economists lauding the positive attributes of the informal sector and those deploring its pitfalls could both be correct; their competing theories may simply apply to different kinds of economies.”

economy's dynamism by providing an alternative development path in the absence of fully-fledged institutions. This aligns with structuralist theory, which suggests that informality drives growth in poor countries by providing economic opportunities unavailable in the formal sector. Likewise, legalists consider informal employment to be optimal behavior in low-income countries, where the bureaucratic and regulatory burden of engaging in productive activities is particularly high (Loayza, 1996). Yet the positive effects of informality may not hold for all economies. Firstly, for a given income level, there are likely to be diminishing returns to informal sector growth; past some informal sector size, the niche for new micro-enterprises may become saturated, so that informal actors no longer create new value-added but only redistribute economic activity among themselves (Bateman, 2007). Secondly, returns to informality may decline as an economy develops, and become negative in response to improved institutions and economic opportunities. This would be consistent with the dualist notion that in a modernized economy, informal firms operating outside of legal contracts and clearly defined property rights can constrain economic initiative. Rather than being uniformly negative or positive, the economic contributions of the informal sector may instead vary with an economy's income level.

Hypothesis

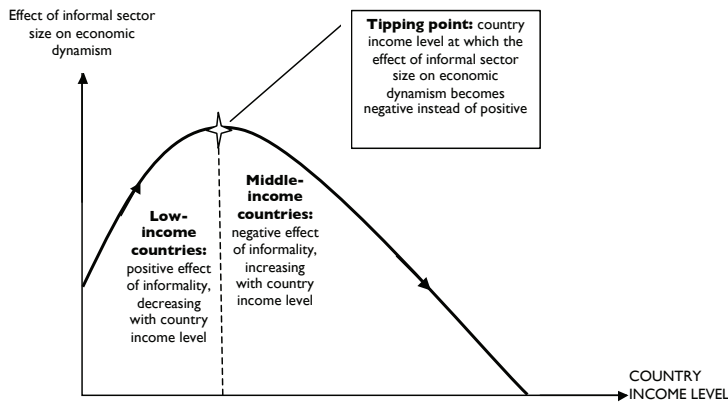
This study investigates the effect that the size of a country's informal sector

“This paper hypothesizes that at very low levels of income, informal sector size should have a positive effect on the dynamism of economic activity, but as economies become richer, they reach a tipping point at which this effect diminishes and becomes increasingly negative.”

has on its economic dynamism, and whether the direction of this effect changes with country income – whether there is a ‘tipping point’ at which the informal sector impact turns from a net gain into a net drag on the economy. This paper hypothesizes that at very low levels of income, informal sector size should have a positive effect on the dynamism of economic activity, but as economies become richer, they reach a tipping point at which this effect diminishes and becomes increasingly negative (Figure 1). This non-monotonic effect would resemble the inverted U-shape relationship between economic inequality and income famously described by the Kuznets curve, which has since been applied to other economic phenomena.¹ If a tipping point does exist in the informality-investment relationship at some income level, the current work may add to this literature by providing preliminary evidence of an ‘informal sector Kuznets curve.’

¹ For example, Grossman and Krueger (1995) have proposed an ‘Environmental Kuznets Curve’ relating per capita income to an economy's level of environmental degradation.

Figure 1. Conceptual Framework - the 'Informal Sector Kuznets Curve'



The notion of an inverted U-shape relationship between the economic effects of informality and country income level flows from several testable assumptions. The author expects to find that informal sector size increases economic dynamism in lowest-income countries, with less positive effects as income rises; that the optimal size of the informal sector is greater in low-income countries than in middle-income countries; and that there are diminishing returns to informality (so that even in a country where the economic effect of informality is positive, this marginal effect should diminish as the informal sector grows, until some optimal level of informality is reached for that country's income level). Although it may not be possible to explicitly demonstrate the presence of a tipping point, providing evidence of these three effects would lend substantial support to the 'informal sector Kuznets curve' hypothesis.

IV. METHODOLOGY

The baseline econometric specification is a two-way fixed effects model as follows:

$$Y_{it} = \alpha + \beta X_{it} + \gamma Z_{it} + \delta year_t + \lambda country_i + \varepsilon_{it} \quad (1)$$

where Y_{it} represents economic dynamism, α is a constant term, $year_t$ is a vector of year dummies, $country_i$ is a vector of country dummies, X_{it} are the main explanatory variables of interest (informal sector share, country income level, and interaction terms), Z_{it} are controls, and ε_{it} is the error.

Dependent variable: domestic investment

The choice of dependent variable requires identifying some macroeconomic measure to reflect the concept of 'economic dynamism,' or the health of the broader economic environment. Domestic investment is one such measure: as a component of national income, it is a driver of production efficiency that reflects

the degree of trust in the domestic economy (Drine and Nabi 2010). Domestic investment is measured by gross fixed capital formation (GFCF) as a percentage of GDP, as defined by the World Bank's *World Development Indicators*. This variable indicates how much of the new value added in the economy is invested rather than consumed. The dependent variable will be expressed in logged form to reflect the effect of informality on proportionate rather than absolute changes in GFCF.

**Main independent variable:
informal sector size**

This paper uses the ILO's employment-based definition of informality, focusing on the traits of the production units in which economic activity occurs. Informal production units meet three criteria: non-registration of the enterprise, small size in terms of employment, and non-registration of employees (Husmanns 2004). Data for informal sector size (percent of total urban employment) are drawn from the ILO's *International Institute for Labour Studies (IILS) Informality Database* (2009), which covers thirty-one Asian, Latin American and African countries between 1989 and 2006. The database's coverage is determined by availability of direct data sources measuring the incidence of informal employment by the ILO's preferred metric.

The main difficulties associated with measuring informal sector size are discussed in the Limitations section; however, two of these are worth

discussing here. Firstly, the IILS database combines data from several direct sources - including household surveys conducted by the ILO and by African National Statistical Offices - to yield harmonized estimates of informality comparable for each country over time. This raises a potential limitation: variations in definitions of informality across countries prevent pooling the data or carrying out a cross-sectional analysis. To overcome this problem, the present analysis follows the ILO and WTO (2009) in assuming that definitions of informality vary across countries but are fixed within each country over time (ILO-WTO 2009). This implies that panel data can be used in making cross-country comparisons: a two-way fixed effects model drops time-invariant omitted variables (including country-specific measurement methods) from the model, so that the ILO's use of different measurement methods across countries should not bias results. A second potential limitation is that the IILS measures informality rates in urban settings (ILO-WTO 2009). While this may limit the transferability of this study's findings to rural employment, focusing on the urban context is also likely to reduce the measurement error associated with the independent variable, and to allow for better cross-country comparability.

Control variables

The basic model will include controls for standard determinants of domestic investment, specifically the inflation rate, the real interest rate, external debt, availability of credit to the

private sector, official development assistance, foreign direct investment, and per capita GDP. These variables are drawn from basic macroeconomic relationships and from the work of Ouattara (2004), Sioum (2002) and Misati (2010) on private investment in African economies. Guided by several econometric models from the legalist school, further specifications of the model will additionally control for the main determinants of informality. These include the tax burden, labour market regulations, government spending, protection of property rights, and control of corruption. These controls will be introduced selectively, to observe their effect on the main variables of interest and determine their appropriateness to the model. Sensitivity testing should provide insight on the channels through which informality affects investment and help to disentangle the effects of informal sector size from the influence of other strongly related phenomena. As displayed in Appendix 1, data for control variables is obtained from the 2008 *Economic Freedom of the World* (EFW) database and from the World Bank's *World Development Indicators*.

Dataset description

This analysis merges data from the ILO's 2009 *IILS Informality Database*, the Fraser Institute's 2008 *Economic Freedom of the World* database, and the World Bank's 2010 *World Development Indicators* to create an initial dataset containing 250 observations. The unit of analysis is the country-year. The analysis is limited to the 14 Latin American, 6 Asian, and 11 African

countries covered by the ILO's IILS Database; however, the variety of GDP per capita levels within this group (ranging from \$226 to \$13,070) is arguably sufficient for this sample to be representative of low- and middle-income countries more generally (for details on sample coverage, see Appendix 2).

Table 1 provides descriptive statistics for the sample. The mean size of the informal sector as a share of total employment in the sample is 55.53%, demonstrating that on average the informal sector outweighs its formal counterpart in the countries and years observed. The mean GDP per capita is \$6,054. Broadly speaking, informal sector size varies inversely with GDP per capita: countries with an above-average income level have a smaller informal sector than poorer countries, whereas countries with a larger-than-average informal sector have a lower GDP per capita than those with a smaller informal sector. Splitting the sample by income level shows that the simple correlation coefficient between informal sector size and domestic investment is stronger for economies with a per capita GDP below the sample mean ($r = 0.466$) than for economies with a per capita GDP above it ($r = 0.178$). However, this preliminary analysis does not indicate any change in the direction of the informality-investment relationship. Testing the tipping point hypothesis calls for a more sophisticated investigation.

Table I. Descriptive Statistics of Main Variables

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
<i>Dependent variables</i>					
GFCF	240	20.5432	5.2651	10.17249	39.95819
ln(GFCF)	240	2.992847	0.2401943	2.319687	3.687834
Poverty headcount	110	15.57385	15.48037	2	83.07
<i>Main independent variables</i>					
Informality	234	55.52578	15.97002	12.22838	93.2
GDPpc	248	6053.966	3246.759	226.235	13070.1
<i>Basic control variables</i>					
External debt	248	6.505687	3.680059	0.5012813	20.33403
Credit to private sector	248	43.3383	33.00152	4.789315	157.1448
ODA	248	2.360556	4.789656	-0.110048	28.72016
FDI	248	2.80385	2.466918	-2.757439	14.92151
Inflation rate (CPI)	236	36.58565	204.4967	-3.206555	2313.965
Real interest rate	236	11.88946	16.13404	-38.86846	86.97994
<i>Control variables for sensitivity analysis</i>					
Government regulation	121	3.741322	1.312991	1	6.9
Tax burden	126	31.05829	5.681766	10	42.22
Government spending	248	13.08678	3.680148	2.975538	28.30431
Rule of law	116	4.155172	1.421716	1.2	8
Bribery	116	5.298276	1.323827	2.1	8.5

Source: own calculations based on data from ILS 2009 (International Institute for Labour Studies Informality Database (2009), Geneva: International Labour Organization); EFW 2010 (Economic Freedom of the World Version 2010.01 (2010), Fraser Institute); and WDI 2010 (World Development Indicators (2010), Washington, DC: The World Bank).

Suggested analysis

The first step of the analysis is to estimate Model (1) with a basic set of control variables (determinants of investment). Several specifications of this model are then estimated to test the sensitivity of key independent variables to the inclusion of additional controls. This second set of controls includes variables whose place in the model is less straightforward to ascertain from theory, as these are important determinants of informality that it may not be logical to hold constant while estimating the impact of changes in informality. Based on the

results of sensitivity testing, the final specification will retain only the most appropriate controls.

The statistical significance and magnitude of the informality terms and interactions in the final specification should provide important information regarding the manner in which GDP affects the informality-investment relationship. Informal sector size is introduced into the model in linear and quadratic forms. The quadratic term allows the effect of informal sector growth on domestic investment to be influenced by the preexisting level of informality in the economy, to capture

the possibility of diminishing returns. Linear and quadratic interaction terms between informality and national income are also introduced ($\ln(\text{GDPpc}) * \text{informality}_{it}$ and $\ln(\text{GDPpc}) * \text{informality}_{it}^2$) to explore whether the effect of informality on a country's economic dynamism changes direction at different levels of country income. If both linear and quadratic interactions are statistically significant, the effect of informality on domestic investment varies both with the level of GDP per capita and with informal sector size (with the squared interaction allowing for any diminishing marginal returns from informal sector growth to have different effects at different income levels).

The second part of the analysis directly addresses the hypothesis of an inverted U-shaped relationship, by splitting the regression sample by income level to observe how the effect of informal sector size on domestic investment varies between income categories. This should help to identify a change in direction of the underlying relationship, and perhaps to locate a distinct optimal informal sector size for each income group.

V. RESULTS OF MULTIVARIATE ANALYSIS

Effect of informal sector size on domestic investment

The first column of Table 2 reports regression coefficients and standard errors for Eqn(1A), which controls only for the standard determinants

of domestic investment. Table 2 also presents several extended specifications of this baseline model, testing the sensitivity of the main independent variables of interest X_{it} (informal sector share, country income level, and interaction terms) to the introduction of additional controls. It should be noted that these specifications are not estimated over a consistent sample, as sample size varies between models due to the introduction of controls for which fewer observations are available. This may make it difficult to compare coefficient magnitudes across specifications, but should not hinder the process of model selection, which is determined by statistical significance.

The final specification obtained from this sensitivity testing is Eqn(3)—which controls for government regulation, rule of law, and bribery. The controls retained greatly increase both the statistical significance and magnitude of all informality terms. This suggests that informality exerts an effect on domestic investment independently of these variables, and that excluding them from the model would bias the estimation of X_{it} downwards. On the other hand, the statistical significance and magnitude of X_{it} is only marginally affected by controlling for the tax burden and government spending. This implies either that informality has little effect on domestic investment or that its effect works mainly through the channel of government spending and taxation. These variables should therefore not be held fixed in estimating the informality-investment

relationship and are excluded from the final specification.

The estimates in Eqn(3) highlight two general findings. **Higher levels of informality are associated with higher levels of domestic investment, and this effect has decreasing returns to scale; and the positive effect of informality on domestic investment decreases as country income level rises, at a diminishing rate.** While the magnitude and statistical significance of these effects are sensitive to specification changes, the direction of all informality terms is consistent across the seven specifications examined. The explanatory variables in Eqn(3) explain 60 percent of the variation in the dependent variable and are jointly significant at the 1 percent level.

Effect of informal sector size on investment by country income level

The signs of the interaction terms in Table 2 suggest that the informality-investment relationship is non-linear across different income levels, but is it also non-monotonic? Table 3 shows results of Eqn(3) when the sample is split into ‘poor’ and ‘rich’ countries (as determined by comparing GDP per capita levels with the sample mean of \$6,504). The results suggest a change in direction of the informality-investment relationship at a GDP per capita level close to the sample mean.

For the ‘poor’ country subsample, informality has a positive effect on domestic investment with diminishing returns to scale, as for the full-sample regression. Strikingly, the

direction of all explanatory variables of interest is reversed for the ‘rich’ country subsample—higher levels of informality are associated with lower levels of domestic investment. This effect becomes increasingly negative as informality increases. Meanwhile, the direction of all control variables is consistent across both subsamples. This aligns closely with the hypothesis of an inverted U-shape relationship between informality and investment: **the effect of informality on domestic investment changes direction at some per capita GDP level, with (diminishing) positive effects in the sample’s poorer countries and (increasing) negative effects in the sample’s richer countries.**

“...the effect of informality on domestic investment changes direction at some per capita GDP level, with (diminishing) positive effects in the sample’s poorer countries and (increasing) negative effects in the sample’s richer countries.”

Marginal effects of informality

Regression results strongly suggest that the informality-investment relationship is non-monotonic: the partial effect of informality on investment changes not only in magnitude but also in direction with increasing levels of GDP per capita. Although estimating Eqn(3) separately by income quartile could allow for more detailed analysis of these phenomena, this is prevented

Table 2. Effect of Informal Sector Size on Domestic Investment

Variable	(1A)	(2A)	(2B)	(2C)	(2D)	(2E)	(3)
Informality	0.0508 (0.0969)	1.343*** (0.403)	0.103 (0.199)	0.0271 (0.114)	1.604*** (0.394)	1.492*** (0.393)	1.671*** (0.398)
ln(GDPpc)	0.232 (0.298)	4.935*** (1.242)	1.121** (0.489)	0.180 (0.298)	5.651*** (1.200)	5.188*** (1.229)	5.898*** (1.256)
Informality ²	-0.000510 (0.000997)	-0.0112*** (0.00354)	-0.000849 (0.00208)	-0.000281 (0.00120)	-0.0138*** (0.00357)	-0.0128*** (0.00355)	-0.0143*** (0.00356)
ln(GDPpc)*Informality	-0.00713 (0.0110)	-0.153*** (0.0463)	-0.0109 (0.0261)	-0.00437 (0.0131)	-0.182*** (0.0455)	-0.169*** (0.0451)	-0.189*** (0.0456)
ln(GDPpc)*Informality ²	7.56e-05 (0.000114)	0.00129*** (0.000405)	8.78e-05 (0.000265)	4.86e-05 (0.000139)	0.00157*** (0.000409)	0.00146*** (0.000405)	0.00163*** (0.000406)
External debt	-0.00708 (0.00524)	-0.0124* (0.00626)	-0.00854 (0.00913)	-0.00625 (0.00582)	-0.00965* (0.00542)	-0.00836 (0.00499)	-0.00823* (0.00403)
Credit to private sector	0.00245 (0.00155)	-0.00144 (0.00136)	-0.00108 (0.00167)	0.00245 (0.00151)	-0.00283 (0.00167)	-0.00304* (0.00147)	-0.00343** (0.00152)
ODA	0.0126** (0.00510)	-0.0174 (0.0316)	0.0237*** (0.00823)	0.0120** (0.00478)	-0.0225 (0.0280)	-0.0237 (0.0208)	-0.0278 (0.0208)
FDI	0.0109*** (0.00365)	0.0202*** (0.00479)	0.00932 (0.00665)	0.0103*** (0.00343)	0.0176*** (0.00308)	0.0100* (0.00558)	0.0127*** (0.00434)
Inflation rate (CPI)	-0.00362*** (0.000839)	-0.000540 (0.000740)	-0.000307 (0.000878)	-0.00355*** (0.000780)	-0.00105 (0.00108)	-0.00152 (0.000925)	-0.00123 (0.000813)
Real interest rate	-0.00279*** (0.000992)	0.000253 (0.00187)	-0.000724 (0.00171)	-0.00294*** (0.000921)	0.00140 (0.00210)	0.000700 (0.00217)	0.000860 (0.00212)
Government regulation (labour market regulations)		-0.00536 (0.0106)					-0.00571 (0.00960)
Tax burden (highest corporate marginal tax rate)			0.00330 (0.00245)				
Government spending				0.00443 (0.00949)			
Rule of law (protection of property rights)					-0.0209 (0.0160)		-0.0466* (0.0243)
Bribery						0.0567** (0.0214)	0.0833** (0.0332)
Constant	1.075 (2.637)	-40.03*** (10.78)	-6.998* (3.963)	1.477 (2.624)	-46.73*** (10.36)	-42.85*** (10.57)	-49.25*** (10.84)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.473	0.607	0.458	0.474	0.519	0.557	0.600
N	208	103	110	208	100	100	100

Note: Standard errors (allowing for clustering at the country level) are in parentheses. A single asterisk denotes significance at the 10% level. A double asterisk denotes significance at the 5% level. A triple asterisk denotes significance at the 1% level.

Table 3. Effect of Informality on Investment by Country Income Level

Variable	Main Independent Variables of Interest		Variable	Control Variables	
	(RICH) ^a	(POOR) ^b		(RICH)	(POOR)
Informality	-0.776 (2.617)	6.428*** (1.413)	External debt	-0.00822 (0.00842)	-0.0103 (0.0519)
ln(GDPpc)	-0.644 (5.971)	23.85*** (5.927)	Credit to private sector	-0.00222 (0.00193)	-0.00458 (0.00374)
Informality ²	0.0123 (0.0302)	-0.0501*** (0.0105)	ODA	-0.354 (0.198)	-0.0250 (0.0246)
ln(GDPpc)*Informality	0.0892 (0.294)	-0.738*** (0.171)	FDI	0.0127** (0.00462)	0.00871 (0.0494)
ln(GDPpc)*Informality ²	-0.00140 (0.00337)	0.00577*** (0.00126)	Inflation rate (CPI)	-0.00635** (0.00206)	-0.00253 (0.00207)
Year Fixed Effects	Yes	Yes	Real interest rate	-0.000326 (0.00214)	0.00429 (0.00399)
Country Fixed Effects	Yes	Yes	Government regulation (labour market regulations)	0.0135 (0.0143)	0.0265 (0.0265)
R-squared	0.659	0.860	Rule of law (protection of property rights)	-0.0622** (0.0272)	-0.0220 (0.0526)
N	61	39	Bribery	0.0844 (0.0603)	0.0417 (0.0448)

Note:

a: 'RICH' countries have a GDP per capita above the sample mean of \$6054

b: 'POOR' countries have a GDP per capita below the sample mean of \$6054

Standard errors (allowing for clustering at the country level) are in parentheses. A single asterisk denotes significance at the 10% level. A double asterisk denotes significance at the 5% level. A triple asterisk denotes significance at the 1% level.

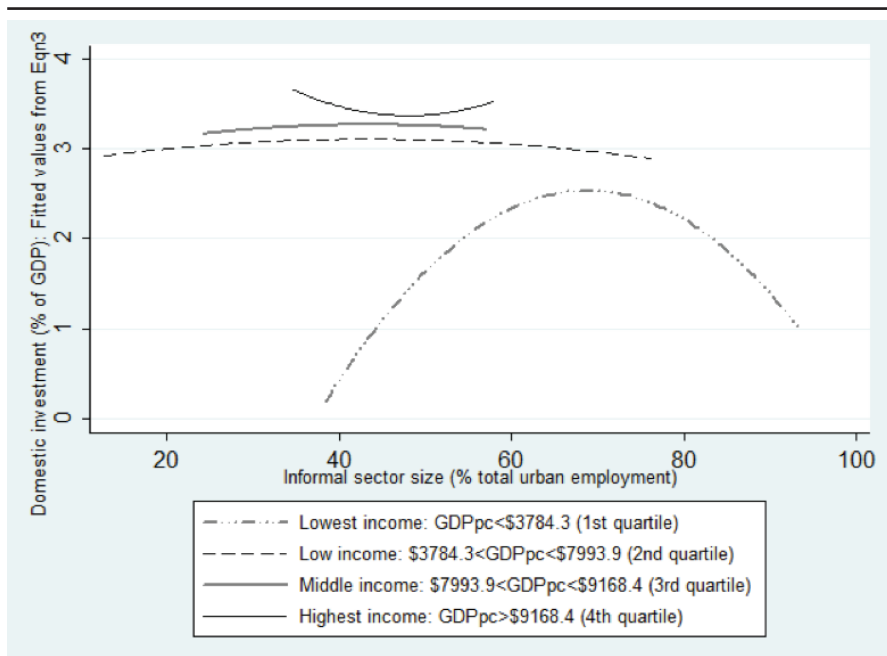
by insufficiently small sample size. Simple graphical analysis is nonetheless informative. In Figure 2, the regression sample is divided into income quartiles and the predicted informality-investment relationship (determined from the fitted values of Eqn(3)) is plotted against informal sector size for each group. Three points emerge from this exercise, all of which support the ‘informal sector Kuznets curve’ hypothesis:

- **Informality generally has a positive effect on economic dynamism, with diminishing returns to scale:** excluding the highest-income economies in the regression sample, informality has an initially increasing and then decreasing impact on domestic investment (indicating

diminishing and then negative returns to informality for a given income range).

- **The effect of informality on domestic investment changes direction with GDP per capita, with more positive effects at lower income levels:** the quadratic relationship is most pronounced in lowest-income economies. This relationship is flatter in low-income and middle-income economies and is entirely negative for the sample’s highest-income group. This suggests that the relationship between GDP per capita and the effect of informality on domestic investment may indeed resemble an inverted U-shape function.

Figure 2. Predicted Domestic Investment against Informal Sector Size, by Income Quartile



- **Optimal informal sector size is inversely related to country income level:** the turning point of each parabola in Figure 2 represents the ‘optimal’ informal sector size for that income group (the level of informality at which the effect of informality on investment is maximized and past which further informal sector growth brings negative returns). For the highest income group where this parabola is inverted, the optimal informal sector size is the leftmost point of the function, for which the associated level of domestic investment is greatest. The optimal level of informality (*) moves backwards as country income increases. For the economies in this regression sample, optimal informal sector size for the lowest-income quartile occurs at roughly 70 percent of total urban employment. This may be compared to a level of roughly 40 percent in low and middle-income quartiles and a little above 30 percent in the sample’s highest-income quartile.

VI. LIMITATIONS

External validity

Due to inconsistent data availability across countries, Latin American economies are over-represented relative to Asian and African economies in this dataset. Additionally, middle-income economies far outnumber low-income economies as classified by the World Bank (Appendix 2).

The conclusions derived from this analysis can nonetheless be extended to a wider range of economies, as the regression sample includes countries from a variety of regions, many of which are significantly richer than others. Furthermore, the use of panel data reduces the risk that results may be driven by country characteristics specific to this dataset; as country fixed effects eliminate potentially problematic time-invariant variables. The use of panel data should also minimize any bias associated with potential omitted variables, provided that these are fixed over time. No major omitted variable bias is expected to arise from time-varying variables, given that model selection involves sensitivity testing to the inclusion of numerous auxiliary controls.

More importantly, data are missing in a non-random way for certain variables. The *Economic Freedom of the World* indices are only available for 1990, 1995, and for every year after and including 2000. Consequently, specifications including these controls consist mostly of observations occurring in or after 2000. While the number of observations remains high enough to establish statistically significant results, the relationships derived from such models may be picking up effects specific to the 2000’s. It is, however, unlikely that global macroeconomic trends between 2000 and 2006 would have differed sufficiently from those of the previous decade for this to markedly influence results. The inclusion of year dummies should also mitigate any resulting

biases. Conclusions from the final specification may nonetheless have stronger external validity for recent years.

Measurement error

Described by many as the “shadow economy,” the informal sector is difficult to observe directly. This leads to very different approaches to its measurement. ‘Direct’ methods, such as household surveys or tax audits, help to determine the extent of informality in the labour force. However, these methods may not include individuals engaged in precarious employment or in very small-scale activities, who often fall outside the survey frame (ILO-WTO 2009). ‘Indirect’ procedures exploit discrepancies between macroeconomic indicators (for example, the difference between national expenditure and income statistics) to approximate the ‘leakage’ of economic activity into the informal sector. A third method relies on econometric techniques to build ‘dynamic multiple-indicators multiple-causes’ (DYMIMIC) models (see for example Loayza 1996; Schneider 2008). These calculate informal sector size using predicted values from regressions whose independent variables include typical determinants of informality. The resulting estimates,

however, are highly sensitive to changes in specification of the underlying model. Given this lack of consensus in measurement techniques, estimating the economic effects of informality will inevitably be subject to some measurement error regardless of the chosen metric.

Endogeneity

This analysis investigates to what extent changes in informal activity affect domestic investment. It is possible that changes in domestic investment in turn affect the size of the informal sector (for example, investment in domestic businesses could cause enough informal firms to reach a size at which they formalize). The potential bias associated with endogeneity can be mitigated through a two-stage least squares (2SLS) instrumental variable estimation. This requires identifying, as an instrument, a variable that is strongly related to informal sector size but whose effect on domestic investment works only through the channel of informality. The lagged term of the independent variable arguably fits this criterion: the correlation between *informality_t* and *informality_{t-1}* is necessarily non-zero, and there is no causal channel through which domestic investment this period could affect informal sector size last period, eliminating the possibility of reverse causation.

The 2SLS estimation presented in Appendix 3 uses lagged terms of the key independent variables X_{it} as instruments. All main independent variables of interest in the second stage are statistically significant and have the

“Further research could focus on finding a more appropriate instrumental variable for informal sector size, with stronger first-stage significance and a more robust exclusion restriction.”

same direction and order of magnitude as in full-sample OLS. However, as none of the instruments is statistically significant in any of the first stage regressions, the 2SLS estimation cannot serve to verify that the main findings are unbiased. Further research could focus on finding a more appropriate instrumental variable for informal sector size, with stronger first-stage significance and a more robust exclusion restriction.

VII. CONCLUDING REMARKS

Motivated by a clear knowledge gap, this paper set out to bridge a theoretical and policymaking impasse regarding the economic effects of informality. The findings provide evidence of a statistically significant positive relationship between informality and domestic investment in low and middle-income countries, with diminishing returns to scale. The effect of informality on economic dynamism changes direction with country income level, seemingly describing an inverted U-shape function: informality has a positive and statistically significant effect on domestic investment in poorer economies, and this effect weakens and becomes negative and insignificant as an economy crosses a certain income threshold. Moreover, optimal informal sector size appears to be inversely related to an economy's per capita income level. These results strongly suggest the existence of a non-monotonic relationship between the economic impacts of informality and country income level, along the lines of an 'informal sector Kuznets curve.'

“Current developing-country policy toward the informal sector is therefore in urgent need of revision. Stifling the informal sector in pursuit of economic modernization is counterproductive... authorities would gain from enabling informal activities to thrive in a policy environment less threatening toward the informal workforce and more responsive to its needs.”

The policy implications of these findings are three-fold. Firstly, in contexts where institutions and socioeconomic environments do not allow formal productive activities to thrive, the informal sector can stimulate the dynamism of the domestic economy. Current developing-country policy toward the informal sector is therefore in urgent need of revision. Stifling the informal sector in pursuit of economic modernization is counterproductive. Indeed, the wholesale formalization advocated by numerous international organizations is itself a misguided objective: all economies examined in this analysis have some optimal, non-zero level of informality, which is a function of their income level. Instead, authorities would gain from enabling informal activities to thrive in a policy environment less threatening toward the informal workforce and more responsive to its needs.

Secondly, informality provides only a second-best solution for economic activity in the short run; it is probably not an acceptable foundation for

sustainable development over time (OECD 2009). This paper finds that the positive effect of informality on domestic investment has diminishing returns to scale and declines as national income increases. Thus, the findings do not challenge the notion that formal employment is beneficial to a society's workforce. In an ideal policy environment, social protection, job security, and tax revenues undoubtedly contribute to a higher quality of life. This analysis simply encourages policymakers to take a more differential approach to the question of informality, informed by their country's level of economic and institutional development. In low-income contexts where governments are not willing or able to invest in improving the institutional framework and lowering the costs of formality, it may be more worthwhile to sustain the informal sector than to repress it. In sound policy environments and at higher levels of income, the question instead becomes how to successfully transform informal microenterprises into formal activities without driving them out of the market.

“In low-income contexts...it may be more worthwhile to sustain the informal sector than to repress it. In sound policy environments and at higher levels of income, the question instead becomes how to successfully transform informal microenterprises into formal activities without driving them out of the market.”

More generally, these findings indicate that the informal sector is a powerful substitute for the formal sector: in a sub-optimal policy setting, the informal sector can fill important economic loopholes and encourage entrepreneurship and investment. Policy efforts in low-income countries should focus on improving livelihoods and productive capacity in both formal and informal sectors, so as to kick start the economy's informal growth engine in the short run, while simultaneously laying the groundwork for a long-run increase in formality.

VIII. REFERENCES

- Asea, Patrick K. 1996. “The informal sector: baby or bath water? A comment.” *Carnegie-Rochester Conference Series on Public Policy* 45: 163- 171.
- Bacchetta, Marc, Ekkehard Ernst and Juana Bustamante. 2009. *Globalization and Informal Jobs in Developing Economies*. International Labour Office and Secretariat of the World Trade Organization, Geneva.
- Bateman, Milford. 2007. “Commercial Microfinance: Undermining Development.” *Private Sector and Development* 07/2007. London School of Economics.
- Bello, Omar D. 2002. “The Informal Sector, Productivity Shocks, And Distortions in the Labor Market.” Banco Central de Venezuela, Escuela de Economía Universidad Católica Andrés Bello.
- CUTS Centre for International Trade, Economics & Environment. 2009. “Informal Sector: Definitions and its Implications for Growth.” CUTS International.
- De Soto, Hernando. 1989. *The Other Path: The Economic Answer to Terrorism*. New York: Basic Books.
- Drine, Imed and Sami Nabi. 2010. “Public External debt, Informality and Production Efficiency in Developing Countries.” *Economic Modeling* 27: 487-495.

- Enste, Dominik H. and Friedrich Schneider. 2000. "Shadow Economies: Size, Causes, and Consequences." *Journal of Economic Literature* 38(1): 77-114.
- Gerxhani, Klarita. 1999. "Informal Sector in Developed and Less Developed Countries: A Literature Survey." *Tinbergen Institute Discussion Papers* Number 99-083/2.
- Global Fairness Initiative. 2009. "Roadmaps to Formalization: Promoting Informal Labor Rights (PILAR) in Guatemala and Nicaragua." Available at: http://www.globalfairness.org/downloads/PILAR_Roadmap_Eng.pdf
- Grossman, Gene M. and Alan B. Krueger. 1995. "Economic Growth and the Environment." *The Quarterly Journal of Economics* 110(2): 353-377.
- Hussmanns, Ralf. 2004. "Measuring the informal economy: From employment in the informal sector to informal employment." *Working Paper* No. 53, Policy Integration Department Bureau of Statistics, International Labour Office, Geneva.
- Jütting, J. and Laiglesia, J. R. De. 2009. "Is Informal Normal? Towards More and Better Jobs in Developing Countries." OECD Development Centre Policy Brief, March 2009.
- Kaufmann, Danny, Simon Johnson and Andrei Schleifer. 1997. "The Unofficial Economy in Transition." *Brookings Papers on Economic Activity* 1997(2): 159-239.
- Loayza, Norman V. 1996. "The economics of the informal sector: a simple model and some empirical evidence from Latin America." *Carnegie-Rochester Conference Series on Public Policy* 45: 129-162.
- Loayza, Norman V., Ana María Oviedo and Luis Servén. 2005. "The Impact of Regulation on Growth and Informality: Cross-Country Evidence." *Policy Research Working Paper* WPS 3623, World Bank Group.
- Misati, Roseline Nyakerario. 2010. "The Role of the Informal Sector in Investment in Sub-Saharan Africa." *International Entrepreneurship and Management Journal* 6,(2): 221-230.
- Ouattara, Bazoumana. 2004. "Modeling the Long Run Determinants of Private Investment in Senegal." *CREDIT Research Paper* No 04/05, University of Nottingham.
- Pagés, Carmen, Ed. 2010. *The Age of Productivity: transforming economies from the bottom up*. Inter-American Development Bank. New York: Palgrave Macmillan.
- Potts, Deborah. 2008. "The Urban Informal Sector in Sub-Saharan Africa: from bad to good (and back again?)" *Development Southern Africa* 25(2).
- Rogers, Carol Ann and Kenneth A. Swinnerton. 2004. "A Model of Informal Sector Labour Markets." *Conference of Northeastern Universities Development Consortium*, HEC-Montreal.
- Schneider, Friedrich. 2008. "The Shadow Economy in Germany: A Blessing or a Curse for the Official Economy." *Economic Analysis & Policy* 38(1).
- Sioum, Admasu Shiferaw. 2002. "Private Investment and Public Policy in Sub-Saharan Africa: an Empirical Analysis." ORPAS Institute of Social Studies Working Paper 356.
- Verick, Sher. 2006. "The Impact of Globalization on the Informal Sector in Africa." Institute for the Study of Labour (IZA).

Databases:

- International Institute for Labour Studies Informality Database, Geneva, International Labour Organization, 2009.
- Economic Freedom of the World Version 2010.01, Fraser Institute, 2010.
- World Development Indicators, The World Bank, December 2010.

Appendix I. Variable Abbreviations, Definitions and Sources

Variable	Abbreviation	Definition	Source
<i>Dependent variables</i>			
GFCF	GFCF	Gross fixed capital formation (% of GDP)	WDI 2010
ln(GFCF)	ln(GFCF)	ln (Gross fixed capital formation)	WDI 2010
Poverty headcount	popercent	Poverty headcount ratio at \$1.25 a day, PPP (% of total population)	WDI 2010
<i>Main independent variables</i>			
Informality	informality	Informal sector size (% of total urban employment)	IILS 2009
GDPpc	GDPpc	GDP per capita, PPP (constant 2005 int'l \$)	WDI 2010
<i>Basic control variables</i>			
External debt	Tdebt	Total debt service (% of GNI)	WDI 2010
Credit to private sector	domcred	Domestic credit to private sector (% of GDP)	WDI 2010
ODA	Oda	Net Official Development Assistance received (% of GDP)	WDI 2010
FDI	Fdi	Foreign direct investment, net inflows (% of GDP)	WDI 2010
Inflation rate (CPI)	Cpi	Consumer price index (%)	WDI 2010
Real interest rate	rinterest	Real interest rate (%)	WDI 2010
<i>Control variables for sensitivity analysis</i>			
Government regulation	reghire	Index of labour market (hiring and firing) regulations ^a	EFW 2010
Tax burden	mrgtax	Highest marginal corporate tax rate (%)	EFW 2010
Government spending	govexp	General government final consumption expenditure (% of GDP)	WDI 2010
Rule of law	rolpropright	Index of protection of property rights ^b	EFW 2010
Bribery	Bribe	Index of extra payments and bribes ^c	EFW 2010

Source: adapted from ILS 2009 (International Institute for Labour Studies Informality Database (2009), Geneva: International Labour Organization); EFW 2010 (Economic Freedom of the World Version 2010.01 (2010), Fraser Institute); and WDI 2010 (World Development Indicators (2010), Washington, DC: The World Bank).

Note:

a: This sub-component is based on the Global Competitiveness Report's question: "The hiring and firing of workers is impeded by regulations (=1) or flexibly determined by employers (=7)." The question's wording has varied slightly over the years.

b: This component is from the Global Competitiveness Report's question: "Property rights, including over financial assets are poorly defined and not protected by law (=1) or are clearly defined and well protected by law (=7)."

c: This sub-component is based on the Global Competitiveness Report's question: "In your industry, how commonly would you estimate that firms make undocumented extra payments or bribes connected with the following: A - Import and export permits; B - Connection to public utilities (e.g., telephone or electricity); C - Annual tax payments; D - Awarding of public contracts (investment projects); E - Getting favourable judicial decisions. Common (=1) Never occur (=7)".

Source: World Economic Forum, Global Competitiveness Report in *Economic Freedom of the World* database, Fraser Institute (2010).

Appendix 2. Country, Year and Income Group Coverage: IILS Informality Database and Final Regression Sample

Country	Coverage in IILS Informality Database	Regression sample (Eqn3)	Income group (World Bank 2011) ^a
<i>Latin America</i>			
Argentina	1990-2005	1995-2005	Upper-middle income
Bolivia	1990-1997; 1999; 2002		Lower-middle income
Brazil	1992-1999; 2001-2006	2001-2006	Upper-middle income
Chile	1990; 1992-2000; 2003; 2006		Upper-middle income
Colombia	1992-1998; 2000-2004		Upper-middle income
Costa Rica	1990-2006	2000-2006	Upper-middle income
Dominican Republic	2000-2003	2000-2003	Upper-middle income
Ecuador	1994; 1995; 1998-2006	2000-2006	Lower-middle income
Honduras	1990; 1992; 1994-1999; 2001-2006	2001-2006	Lower-middle income
Mexico	1995-2006	1995; 2000-2006	Upper-middle income
Panama	1991-2006	2000-2006	Upper-middle income
Paraguay	1995-2006	2001-2006	Lower-middle income
Uruguay	1996-2005	2000-2005	Upper-middle income
Venezuela	2000-2006	1995; 2000-2006	Upper-middle income
<i>Asia</i>			
China	1990-2003	1995; 2000-2003	Lower-middle income
India	1994; 2000; 2004	2000; 2004	Lower-middle income
Indonesia	1990-2003	2000-2003	Lower-middle income
Pakistan	1992; 1997; 2000; 2004		Lower-middle income
Sri Lanka	1989; 1990; 1994; 200-2003	2000-2003	Lower-middle income
Thailand	1994; 2001	2001	Lower-middle income
<i>Africa</i>			
Botswana	1994; 2001	2001	Upper-middle income
Cameroon	1993; 2005	2005	Lower-middle income
Egypt	1989; 1998; 2006	2006	Lower-middle income
Ethiopia	2000; 2003-2005	2005	Low-income
Ghana	1999		Low-income
Kenya	1992-1994; 1997		Low-income
Malawi	1998		Low-income
South Africa	1995-2006	1995; 2000-2006	Upper-middle income
Tanzania	1990; 1995		Low-income
Zambia	1993; 1998		Low-income
Zimbabwe	1990; 2002	2002	Low-income

Note:

a: The World Bank classifies countries by income category on a yearly basis. This classification divides economies according to 2009 Gross National Income (GNI) per capita, calculated using the World Bank Atlas method. The categories are: low income, \$995 or less; lower middle income, \$996 - \$3,945; upper middle income, \$3,946 - \$12,195; and high income, \$12,196 or more.

Source: World Bank, 2001, <http://data.worldbank.org/about/country-classifications>; World Bank List of Economies (January 2011)

Appendix 3. Instrumental Variable Estimation

2SLS Stage 1					2SLS Stage 2	
Independent variables	Dependent variable				Independent variables	Dependent variable
	Informality _{t-1}	Informality _{t-2}	ln(GDPpc)* Informality _t	ln(GDPpc)* Informality _{t-2}		ln(GFCF)
Informality _{t-1}	4.429 (6.034)	387.5 (548.5)	27.92 (54.77)	2.965 (4.801)	IV1	1.081** (0.451)
ln(GDPpc)	8.031 (18.68)	1,167 (1,639)	64.20 (170.1)	8,952 (14,386)	ln(GDPpc)	4.108** (1.441)
Informality _{t-1} ²	-0.0393 (0.0554)	-3.186 (5.424)	-0.320 (0.497)	-32.17 (46.89)	IV2	-0.00894** (0.00409)
ln(GDPpc)*Informality _{t-1}	-0.494 (0.670)	-49.24 (59.66)	-3.151 (6.093)	-387.9 (523.6)	IV3	-0.111** (0.0522)
ln(GDPpc)*Informality _{t-1} ²	0.00476 (0.00617)	0.452 (0.592)	0.0395 (0.0556)	4.492 (5.134)	IV4	0.000952* (0.000463)
External debt	0.181* (0.0969)	17.90 (10.71)	1.638* (0.874)	161.6 (96.10)	External debt	-0.0165*** (0.00456)
Credit to private sector	0.0209 (0.0254)	1.536 (2.396)	0.194 (0.228)	14.88 (21.25)	Credit to private sector	-0.00288* (0.00156)
ODA	-1.632*** (0.330)	-216.6*** (33.37)	-13.15*** (2.996)	-1,737*** (300.5)	ODA	0.0135 (0.0463)
FDI	-0.0984 (0.106)	-12.27 (10.05)	-0.902 (0.954)	-112.0 (89.80)	FDI	0.0178*** (0.00414)
Inflation rate (CPI)	0.00287 (0.00883)	0.990 (0.936)	0.0165 (0.0794)	7.581 (8.262)	Inflation rate (CPI)	-0.00172 (0.00126)
Real interest rate	-0.0200 (0.0151)	-2.219 (1.624)	-0.182 (0.134)	-20.19 (14.15)	Real interest rate	0.00150 (0.00172)
Government regulation (labour market regulations)	-0.333* (0.176)	-28.27 (18.08)	-3.021* (1.538)	-254.7 (152.2)	Government regulation (labour market regulations)	0.00331 (0.0141)
Rule of law (protection of property rights)	0.559** (0.201)	54.24** (22.93)	5.156** (1.839)	502.1** (205.5)	Rule of law (protection of property rights)	-0.0771*** (0.0253)
Bribery	0.264 (0.377)	20.45 (42.69)	2.438 (3.288)	188.2 (369.4)	Bribery	0.0837** (0.0346)
Constant	-35.40 (167.9)	-7,760 (14,902)	-243.1 (1,528)	-55,884 (130,670)	Constant	-36.24** (12.43)
Year Fixed Effects	Yes	Yes	Yes	Yes	Year Fixed Effects	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Country Fixed Effects	Yes
R-squared	0.767	0.802	0.793	0.822	R-squared	0.584
N	88	88	88	88	N	88

Note: Standard errors (allowing for clustering at the country level) are in parentheses. A single asterisk denotes significance at the 10% level. A double asterisk denotes significance at the 5% level. A triple asterisk denotes significance at the 1% level.

INCORPORATING HUMAN SECURITY INTO NATIONAL STRATEGY

By Derek S. Reveron and Kathleen A. Mahoney-Norris¹

I. INTRODUCTION

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Their latest book is *Human Security in a Borderless World*.

The second decade of the 21st century continues to demonstrate that it is conflict within states, often spilling across state borders, which will likely pose the most complex and numerous threats to US national security. One has only to note the ongoing regional turmoil in the wake of the “Arab Awakening,” whether in Egypt, Libya, or Syria, and the torturous debate within the US national security community about how to best respond to these situations. Yet, as this analysis contends, any national security response that does not take into account the foundational human security issues at play in these conflicts will only produce continuing instability, violence, and suffering. As we argue below, it is not too far-fetched to assert that formulating US national security strategy in a world increasingly characterized by threats without borders mandates novel ways of conceptualizing security. Thus, in this article we focus on a “human security” construct as providing a valuable corrective to more traditional policy analysis centered on major competitor states, conventional wars, and nuclear threats.

In fact, while there are remnants of traditional, conventional conflicts on the Korean Peninsula and in the Persian Gulf region, today these are largely the exception. Major conflict may still be an important concern, but it is a rare occurrence. This led well-known scholar John Mueller to conclude that war among great powers has almost ceased to exist.² Indeed, consider that the US military finds itself preoccupied not with conventional operations, but with what are essentially human security challenges in Central Asia, the Horn of Africa, and Southeast Asia. These human security challenges are inextricably linked to issues such as disease, poverty, crime, and poor governance, often magnified by corrupt and incompetent foreign leaders. Clearly these challenges often engender instability and conflict, and this type of conflict is increasingly

Author’s Note: The conclusions and opinions expressed in this document are those of the author, and do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.

intra-state, but also internationalized.³ The recent successful NATO operation that sought to protect Libyan civilians from their own murderous regime under Muammar Qaddafi is illustrative of this phenomenon. A similar scenario may occur as Syria becomes destabilized. Undoubtedly, the implications of this changed security landscape are profound for all those involved in national security concerns, whether civilian policymakers, military planners, scholars, issue experts, or nongovernmental activists.

It is worth noting that as early as 2002 the United States had enshrined in its national security strategy the conclusion that the country was threatened more by weak states than by powerful ones, already acknowledging that weak states may allow their domestic threats to become larger transnational ones. Barely ten years later, in fact, the United States finds itself engaged around the world in predominantly weak states in military operations that have little to do with fighting, but everything to do with providing humanitarian assistance, training foreign militaries

“...as early as 2002 the United States had enshrined in its national security strategy the conclusion that the country was threatened more by weak states than by powerful ones, already acknowledging that weak states may allow their domestic threats to become larger transnational ones.”

and building security, justice, and law enforcement institutions to strengthen state governance and sovereignty. Again, traditional conceptions of national security cannot account for this phenomenon of assistance, and conventional perspectives offer little insight into the growing American preoccupation with transnational issues.⁴ Likewise, traditional conceptions of security are severely strained to explain a security environment where peer competitors or potential adversaries like the United States and China may also be transformed into cooperative partners to combat common transnational challenges like pandemic diseases, piracy, and terrorism. Similarly, traditional conceptions of security can only poorly, if at all, account for the growing influence of nongovernmental

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² John Mueller, “War has almost Ceased to Exist: An Assessment,” *Political Science Quarterly* (Summer 2009), 297-322.

³ In 2010, the Uppsala Conflict Data Program tracked zero interstate conflicts, 21 intrastate conflicts (eight fewer than 2009), eight of which were internationalized internal conflicts (e.g., Afghanistan). Uppsala codes “internationalized internal armed conflict” as conflict “between the government of a state and one or more internal opposition group(s) without intervention from other states.” Uppsala Conflict Data Program, Centre for the Study of Civil Wars, International Peace Research Institute, UCDP/PRIO Armed Conflict Dataset Codebook, (Oslo, 2008).

⁴ See Derek S. Reveron, *Exporting Security: International Engagement, Security Cooperation, and the Changing Face of the U.S. Military* (Washington, DC: Georgetown University Press, 2010).

groups and activists who work across state boundaries to tackle human rights abuses, poverty, HIV/AIDS, and climate change. As just one example, it is estimated that some 10,000 nongovernmental groups were operating within the relatively small country of Haiti after its horrific 2010 earthquake.⁵

In order to justify the relevance of incorporating a human security perspective into US national security policy and planning efforts, the analysis offered here addresses several aspects. First, a brief summary of contemporary security challenges is provided, showing that the factors fueling endemic conflict and a pervasive sense of insecurity over the last twenty years will only accelerate in the 21st century. We then argue that these challenges are often best explained by the human security concept, explicitly recognized by the United Nations (UN) as early as 1994. In effect, this means that the national security of states cannot be assured without achieving the human security needs of individuals and groups. We find that there has been a growing acknowledgement of this point within the international community, ranging from a focus on achieving the UN's Millennium Development Goals to recognition of the "responsibility to protect" populations. As noted below, policy initiatives under the Bush and Obama Administrations have also demonstrated increasing recognition of these concerns. This analysis concludes by offering a more nuanced understanding of how the

continuum of human security issues—conceptualized as civic, economic, environmental, and health concerns—constitutes the most prevalent threats to US national security. In sum, a narrow focus on the most catastrophic threats of great power, war and nuclear attack, will only blind us to the most insidious threats.

“...a narrow focus on the most catastrophic threats of great power, war and nuclear attack, will only blind us to the most insidious threats.”

The “New” Security Environment

It is important to first emphasize that human security challenges are not really a new phenomenon. In fact, two years before the 9/11 terrorist attacks, the US government's federally-chartered Hart-Rudman Commission on National Security/21st Century predicted:

New technologies will continue to stretch and strain all existing borders—physical and social. Citizens will communicate with and form allegiances to individuals or movements anywhere in the world. Traditional bonds between states and their citizens can no longer be taken for granted, even in the United States. Many countries will have difficulties keeping dangers out of their territories, but their governments

⁵ Katie Nguyen, “Q: How Many Donors Does It Take to Fix Congo's Health Sector?” *AlertNet*, April 11, 2011. Accessed at <http://www.trust.org/alertnet/news>.

*will still be committed to upholding the integrity of their borders. Global connectivity will allow “big ideas” to spread quickly around the globe. Some ideas may be religious in nature, some populist, some devoted to democracy and human rights. Whatever their content, the stage will be set for mass action to have social impact beyond the borders and control of existing political structures.*⁶

Just as the Hart-Rudman Commission foresaw, technological changes and increased information flows have helped to stimulate new transnational challenges that are creating widespread insecurity across the civic, economic, environmental, maritime, and health realms. One example is the proliferation of small arms and light weapons, often linked to narco-trafficking and criminal gangs, which undermine regime legitimacy and social stability in Latin America and the Caribbean where communities and individual citizens do not feel secure. An additional example includes international migrant smuggling and human trafficking networks that challenge traditional notions of sovereignty and human rights in West and North Africa. Both examples

“In this globalized environment non-state actors may have some inherent advantages over governments. Consider that small private groups can more readily harness and adapt off-the-shelf technology such as satellite phones, encryption, and transportation technology.”

demonstrate that development inequities foster unrest within, and between, societies in Europe, Asia, and the Middle East alike.

In this globalized environment non-state actors may have some inherent advantages over governments. Consider that small private groups can more readily harness and adapt off-the-shelf technology such as satellite phones, encryption, and transportation technology. For example, in the Caribbean Sea, semi-submersible vehicles or the “poor man’s submarine” carrying cocaine are increasingly common. And in Nigeria, organized criminal groups illegally trade 100,000 barrels of stolen oil every day, which requires an elaborate system of transportation and financing. Whether they are state-supported, local, transnational, narco-terrorist, Islamist, or neo-communist, these groups have access to a variety of underground economies, putatively religious charities, and illicit government sponsorship.

In the United States and many other developed countries criminal gangs and other illegally armed groups are seen as a problem for law enforcement, and there is minimal concern about domestic stability. Yet with so many nongovernmental and illegal groups operating at a sub-national level in all regions of the world, many police

⁶ Commission on National Security/21st Century, *New World Coming: American Security in the 21st Century* (Washington, D.C.: U.S. Government Printing Office, September 1999), 5. Accessed at <http://www.au.af.mil/au/awc/awcgate/nssg/> on March 12, 2009.

forces in developing countries are under-equipped to effectively confront these groups—or too frequently they get co-opted through corruption. Illegally armed groups thus may drastically weaken a state’s ability to provide security for its citizens and their communities; a widespread occurrence in many Latin American countries. One of the most prominent examples of this trend has been occurring in Mexico, where at least 40,000 citizens have lost their lives since 2006 when large-scale violence erupted between Mexican authorities and the narcotics-criminal families and gangs battling for control. Demonstrating the power of these criminals, *Forbes* magazine listed Joaquin “El Chapo” Guzman, the billionaire leader of the Sinaloa cartel, as the 55th most powerful individual on the planet in 2011, while no Mexican political leader made the list.

The insecurity in Mexico is also significant as a demonstration of the increasingly transnational nature of human security challenges: the Mexican narco-trafficking and criminal gangs have pervasive links from South America, through Central America and the Caribbean, to the United States itself. The realization that even powerful states can be vulnerable to human security issues marks an important advance in understanding; in the past developed states have tended to be more immune than developing states to the negative aspects of globalization. For instance, as the 2009-10 influenza pandemic illustrated, the United States had the resources

“The realization that even powerful states can be vulnerable to human security issues marks an important advance in understanding; in the past developed states have tended to be more immune than developing states to the negative aspects of globalization.”

to manufacture vaccines, stockpile anti-viral medicines, and inoculate tens of millions of people in a short period of time. However, developed states’ often complacent attitude about their own domestic security seems to be changing. As Nick Gvosdev has astutely commented, “The riots...in the United Kingdom, coming on the heels of the terrorist attack in Norway, the protests in Greece and the tsunami and subsequent nuclear accident in Japan... should be a wake-up call to Europe and the rest of the developed world that it cannot ignore the domestic side of the national security equation. It is time to dispense with the hubris of thinking that natural disasters, civil unrest or terrorism produces instability only in countries like Haiti or Iraq.”⁷

Given these transformational changes in the security environment, we contend that traditional notions of security have little to offer in terms of understanding threats without borders. Instead, a human security construct is necessary to make sense of these threats, and to develop viable policy options. This clearly applies

⁷ Nikolas Gvosdev, “The Realist Prism: London Riots and Europe’s Security Equation,” *World Politics Review*, August 12, 2011.

to military forces which in the past have largely lacked the capabilities, doctrine, and culture to confront these transnational security challenges. This is understandable as militaries tend to prepare for defending their borders from invading forces and not for improving how they work with police or enforce domestic law and order. However, this, too, is beginning to change in many countries as military forces are starting to think beyond warfare and are developing core competencies to meet the challenges of transnational threats to better address nontraditional, human security concerns.

“Given these transformational changes in the security environment, we contend that traditional notions of security have little to offer in terms of understanding threats without borders. Instead, a human security construct is necessary to make sense of these threats, and to develop viable policy options.”

II. THE CONCEPT OF HUMAN SECURITY⁸

The United Nations Development Program (UNDP) first conceptualized, and then systematically promoted, the concept of human security. In its benchmark *Human Development Report 1994*, the UNDP provided an explanation, justification, agenda, operational indicators, and policy recommendations centered on the concept of human security. UNDP

associates were clear that the concept of security had been too much associated with military conflict and arms, and that human security involves other concerns like “job security, income security, health security, environmental security, security from crime...”⁹

Fifteen years later the UNDP’s *Arab Human Development Report 2009* defined human security more broadly as “the liberation of human beings from those intensive, extensive, prolonged, and comprehensive threats to which their lives and freedom are vulnerable.”¹⁰ The report helpfully contrasts state or national security and human security, by pointing out that the threats to state security are military ones, the actors who threaten states are usually located outside those states, and that the state itself is the object that is threatened. By contrast, with human security, the threats are varied in nature, as are the actors who threaten humans, and “the object of threat in the case of human security is individuals’ lives, freedom, or both.”¹¹ Several other concepts are almost always part of the discussion on human security, including “the responsibility to protect,” the inherent nature of human

⁸ This section is based on our latest book, *Human Security in a Borderless World* (Boulder, CO: Westview Press, 2011).

⁹ United Nations Development Programme, *Human Development Report 1994* (New York: Oxford University Press, 1994), 3.

¹⁰ United Nations Development Programme-Regional Bureau for Arab States, *Arab Human Development Report: Challenges to Human Security in the Arab Countries* (New York: United Nations Development Programme, 2009), 23.

¹¹ *Ibid*, 19.

rights for all human beings, and the concept of “development as freedom” as popularized by Nobel Prize laureate and economist Amartya Sen.¹²

To grapple effectively with security concerns, the United States must move beyond the singular, state-centric focus of national security and include the organizing concept of human security. But, in so doing, it is important to understand, as articulated by Sadaka Ogata (then co-chair of the Commission on Human Security) in 2003, that:

*Human security does not seek to supplant state security, but rather to complement it. States have the fundamental responsibility of providing security. Yet they often fail to fulfil their obligations – many times they are even the source of the threat to people. As the multitude of violent conflicts and extreme poverty demonstrates, states cannot be secure if people’s security is at stake. But neither can people be secure in the absence of strong, democratic and responsible states, as the multitude of collapsed states in the world illustrates.*¹³

Thus, protecting the national security of states is inextricably linked to achieving human security goals. Arguably this belief is reflected in the steady shift in US foreign policy, which is increasingly focused on combating threats across state borders and in placing development on an equal footing with the traditional governmental tools of diplomacy and defense. Clearly human security

concerns are increasingly evident in national security discourse and are becoming a component of US foreign policy. In his first year as president, President Obama reiterated these themes when, upon accepting the Nobel Peace Prize in December 2009, he declared:

*It is undoubtedly true that development rarely takes root without security; it is also true that security does not exist where human beings do not have access to enough food, or clean water, or the medicine and shelter they need to survive. It does not exist where children can’t aspire to a decent education or a job that supports a family. The absence of hope can rot a society from within. And that’s why helping farmers feed their own people—or nations educate their children and care for the sick—is not mere charity. It’s also why the world must come together to control climate change...*¹⁴

In fact, this changing policy had already been acknowledged under the preceding Bush Administration, and has progressed under the Obama Administration. As Hillary Rodham Clinton proclaimed on her very first day as the new Secretary of State,

¹² Amartya Sen, *Development as Freedom* (New York: Alfred A. Knopf, 1999).

¹³ Sadako Ogata, “Human Security Now,” Remarks by Sadako Ogata, Fifth Ministerial Meeting of the Human Security Network, Graz, Austria, May 8, 2003, 2.

¹⁴ The White House, “Remarks by the President at the Acceptance of the Nobel Peace Prize,” December 10, 2009, online at: <http://www.whitehouse.gov/the-press-office/remarks-president-acceptance-nobel-peace-prize>.

“robust diplomacy and effective development are the best long-term tools for securing America’s future.”¹⁵ Secretary Clinton later testified before the House Foreign Affairs Committee on February 25, 2010, noting, “we’re developing a new architecture of cooperation to meet global challenges that cross national boundaries like climate change and the use of our planet’s oceans. In so many instances, our national interests and the common interests converge. And so from the Western Hemisphere to Africa, Asia, and the Middle East, we’re promoting human rights, the rule of law, democracy, and internet freedom. We’re fighting poverty, hunger and disease, and we’re working to ensure that economic growth is broadly shared.”¹⁶

A logical consequence of shifting from a traditional, state-based, territorial definition of security to a human-centric view of security is recognizing the importance of non-state actors. From a negative perspective, this means acknowledging that individuals and various

“But from a positive perspective, it also means that individual activists, like antipersonnel mine activist Jody Williams, philanthropists like Bill and Melinda Gates, or nongovernmental organizations like Save the Children, can act as catalysts to change government policies, improve people’s lives, and incrementally transform the international system.”

transnational terrorist franchises can pose serious threats to human security. But from a positive perspective, it also means that individual activists, like antipersonnel mine activist Jody Williams, philanthropists like Bill and Melinda Gates, or nongovernmental organizations like Save the Children, can act as catalysts to change government policies, improve people’s lives, and incrementally transform the international system.

Thus, for national security analysts and practitioners, it is essential to understand contemporary challenges through a more interdisciplinary, inclusive approach focused on human security, “which equates security with people rather than territories, with development rather than arms.”¹⁷ The dynamic forces transforming human interactions at the international, transnational, regional, and domestic levels all have profound implications for the (human) insecurity perceived by individuals, groups, and states. It is widely acknowledged that much of this

¹⁵ Hillary Rodham Clinton, “Arrival at the Department of State: Remarks to the Department Employees at Welcome Event” (Washington, D.C., January 22, 2009), emphasis added. At <http://www.state.gov/secretary/rm/2009a/01/115262.htm>, March 11, 2009.

¹⁶ Hillary Rodham Clinton, “Testimony before the House Foreign Affairs Committee” (Washington, D.C., February 25, 2010), At <http://www.state.gov/secretary/rm/2010/02/137280.htm>.

¹⁷ In its *Human Development Report of 1994* the United Nations Development Program noted that it was introducing “a new concept of human security, which equates security with people rather than territories, with development rather than arms.” Cited at UNDP Human Development Reports website at <http://hdr.undp.org/en/reports/global/hdr1994>, March 11, 2009.

dynamism is fueled by globalization, which is constantly accelerating change. As Thomas Friedman has noted, this type of rapid change can “...breed enormous insecurity as well as enormous prosperity. They can breed in people a powerful sense that their lives are now controlled by forces they cannot see or touch.”¹⁸ Therefore, examining globalization as an ongoing process affecting human security issues is essential. National strategy tends to deal in large part with the negative aspects of globalization—i.e., how it contributes to the growth of transnational threats—but it is equally important to consider the positive, cooperative aspects of globalization that can fuel productive economic and political transformation.

III. HUMAN SECURITY IS NATIONAL SECURITY

Over the last 20 years, it seems fair to say that human security concerns have gained at least some currency in US defense circles and have influenced more nuanced thinking about national security. In our view, this is particularly significant because if the most powerful state in the international system acknowledges the importance of these concerns and acts upon them, then the human security construct will gain increasing traction. To be sure, the Pentagon continues to largely train and equip military forces for major war, but the US military increasingly finds itself operating in non-combat zones where human security concerns predominate. Generating power, pumping water, and

“...the US military increasingly finds itself operating in non-combat zones where human security concerns predominate. Generating power, pumping water, and building roads are now essential tasks within and outside combat zones.”

building roads are now essential tasks within and outside combat zones.

Interestingly, what is still relatively new to military and national security circles is not all that new in foreign assistance and development circles. Development projects in the 1950s and 1960s had sought to promote human progress by eradicating diseases like small pox or building power generation facilities. More recently, developmental and related human security concerns have been gaining traction among international experts as the threat of a World War III-type conflict has faded. This was already reflected in 1992 as Secretary General of the United Nations Boutros-Boutros Ghali set forth UN goals in the influential *Agenda for Peace*, “to enhance respect for human rights and fundamental freedoms, to promote sustainable economic and social development for wider prosperity, to alleviate distress and to curtail the existence and use of massively destructive weapons.”¹⁹ Barely twenty years later the current

¹⁸ Thomas L. Friedman, *The Lexus and the Olive Tree* (1999; reprint, New York: Anchor Books, 2000), 336.

¹⁹ *An Agenda for Peace: Preventative Diplomacy, Peacemaking, and Peacekeeping* (New York: United Nations, 1992).

UN Secretary-General, Ban Ki-moon, issued “a clarion call to action” as the 7th billion person was projected to be born in October 2011:

*We must address and realize the Millennium Development Goals. That is why, from now on...the United Nations has decided to focus on sustainable development as the No. 1 priority, to address all these issues. Climate change, food-security issues, energy shortages, water scarcities, disease, health issues and gender empowerment: all these are interconnected. We have to address these issues in an integrated way. This is our vision, and all 193 member states [of the UN] have agreed that this should be the top priority.*²⁰

“In short, waiting until war breaks out or until masses of people become internally displaced or refugees is too late and unacceptable to the international community.”

Yet, regardless of the very public emphasis being given to the developmental aspects of human security, it is important to underscore the accompanying international consensus on preventing violence against human beings. Indeed, in the wake of large-scale internal and regional conflicts and violence against civilians—to include the tragedy of genocide in Rwanda—the United Nations formalized its prevention activities in 2004 by appointing a special adviser on the

prevention of genocide and mass atrocities. Soon afterwards, in 2009, UN Secretary General Ban Ki-moon outlined three key elements of a recently acknowledged international responsibility to protect. First, Ban Ki-moon noted that states have the primary responsibility to protect their populations against genocide, war crimes, ethnic cleansing and crimes against humanity. Second, the international community should provide assistance to states in building a capacity to protect their populations from catastrophe by addressing underlying conditions. Third, the international community should take timely action when states fail to protect their populations. As the 2009 Report of the Secretary-General on this responsibility to protect (R2P) notes, “the strategy stresses the value of prevention, and, when it fails, of early and flexible response tailored to the specific circumstances of each case.”²¹ The key to prevention lies in identifying states at risk and developing appropriate responses to aid governments’ efforts to promote development and improve standards of living. In short, waiting until war breaks out or until masses of people become internally displaced or refugees is too late and unacceptable to the international community.

²⁰ Bryan Walsh, “Q&A with U.N. Secretary-General Ban Ki-Moon,” *Time* magazine, October 26, 2011. Accessed at <http://www.time.com/time/specials>.

²¹ United Nations General Assembly, *Implementing the Responsibility to Protect: Report of the Secretary-General* (New York: United Nations, 2009), 2.

The R2P construct clearly rests on human security as the central concern, with prevention of human security violations being the ideal. Notably, the international community's commitment to R2P, although somewhat belated, was reaffirmed in 2011 by the United Nations Security Council when all 15 members voted to invite the International Criminal Court to investigate possible crimes against humanity committed by the Qaddafi regime.²² It will be instructive to see whether the same policy will ultimately be followed with regard to similar charges against the Assad regime in Syria.

Clearly, by employing its own airpower with NATO allies against the Libyan regime in the first half of 2011, the United States demonstrated that it is willing to use force if necessary on behalf of the human security concerns embodied in the R2P understanding. Based on its diverse peacekeeping and nation-building military experiences over the last two decades, the US military has seemingly (if sometimes grudgingly) come to accept its role in R2P-type activities. In fact, in 2005 the Department of Defense mandated that stability and reconstruction activities be considered on par with preparation for major combat, thus elevating the importance of those missions. And in 2008, the US military accepted that irregular warfare against non-state actors is as important as warfare with rogue states and peer competitors. A change in mindset among some sectors of the military may also be reflected in the fact that national security policy

practitioner and academic Sarah Sewell is continuing to receive military support for her Mass Atrocity Response Operations (MARO) Project, which is tied to R2P concerns. Sewell's team recently produced *Military Atrocity Response Operations: A Military Planning Handbook*, which has been useful for military exercise planning.²³

Nevertheless, it is not surprising to find that accepting these modifications to traditional military missions and getting the balance right has not been easy for either the United States or the international community, which together have over 100,000 peacekeepers deployed around the world today. As both President Bush, and later President Obama's Secretary of Defense Robert Gates has observed, "One of the most important lessons of the wars in Iraq and Afghanistan is that military success is not sufficient to win: economic development, institution-building and the rule of law, promoting internal reconciliation, good governance, providing basic services... along with security, are essential ingredients for success."²⁴

²² Colum Lynch, "The U.N.'s Tough Stand on Qaddafi: Exception or Rule?" Foreign Policy. com, March 7, 2011. Accessed at: http://turtlebay.foreignpolicy.com/posts/2011/03/07/the_undefined_tough_stand_on_qaddafi_exception_or_rule.

²³ Sarah Sewell, Dwight Raymond, and Sally Chin, *Mass Atrocity Response Operations: A Military Planning Handbook* (Cambridge: Harvard University, 2010--A Collaborative Effort Between the Carr Center for Human Rights Policy, Harvard Kennedy School, and the US Army Peacekeeping and Stability Operations Institute).

²⁴ Robert M. Gates, "Landon Lecture," November 26, 2007. Accessed at <http://www.k-state.edu/media/newsreleases/landonlect/gatext1107.html>

Based upon these converging trends and assessments, we believe that it is clearly not possible to understand the complex threats to US national security—nor how to develop strategies and policies to deal with those threats—without a deeper understanding of the component issues that underlie human security. Thus, it is important to examine the continuum of interrelated issue areas that are categorized here as civic security, economic security, environmental security and health security.

IV. THE CONTINUUM OF HUMAN SECURITY

Ineffective and failing governments are often the main contributors to human security threats, especially in the realm of civic security. In the first instance, an individual's physical security and integrity may be threatened because the government is actually abusing human rights; whereas in the second instance, the government is incapable of providing public security and protecting the physical integrity and way of life of each citizen. The latter problem is becoming more important as globalization empowers domestic and transnational criminal gangs, drug traffickers, smugglers, and others who

flourish in weak and poorly governed societies to prey upon ordinary citizens. The gravity of this issue is reflected by the United Nations' finding that, of the 750,000 people estimated to die annually from armed violence, the majority (close to 500,000) die from criminal acts of violence and not due to conflict.²⁵ What is more, this type of criminal violence is not contained by state borders, as United States citizens living on both sides of the US-Mexican border have found, to their detriment, in the last few years.²⁶

Civic security also entails the right to express one's cultural values and identity, to include such concepts as ethnicity, race, and religious identity. As human beings value and identify themselves in a number of societal ways beyond national or state, identity is a critically important piece of understanding why so many threats today are transnational in scope. Furthermore, the fundamental attachment that we all have to our cultural identity must be grasped in order to comprehend why globalization can provoke such a serious backlash and conflict, whether in Pakistan or the indigenous highlands of Bolivia. On

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²⁵ According to the United Nations Development Programme Newsroom, “Armed Violence Threatens Progress on Millennium Development Goals,” May 11, 2010. At: <http://content.undp.org/go/newsroom/2010/may/armed-violence-threatens-progress-on-millennium-goals>.

²⁶ In March 2010 three U.S. consulate employees in Ciudad Juarez were killed by masked gunmen, presumably in the context of ongoing drug wars. That same month an Arizona rancher was killed by an individual who then escaped to Mexico, and who was allegedly involved with drug smuggling.

the other hand, clearly globalization acts equally in a positive fashion by enabling transnational social movements such as the human rights movement, which has made notable strides in advancing human rights standards for the world's people—particularly women. Only with deeper insights about these concerns can policymakers devise appropriate, multilayered solutions to civic security issues generated at least in part by transnational actors and cultural identity issues.²⁷

Many would consider economic security, in the sense of being able to provide food and shelter for oneself and one's family, as critically essential to human security on par with security of one's person. This is plainly revealed in the Human Development Index (compiled by the United Nations Development Program), which highlights the staggering differences in life expectancy and child mortality around the world.²⁸ National and regional economic and social development issues have clear potential to stoke instability, violence, and conflict—making weak states weaker, producing failing states, and imperiling civic security.²⁹ In fact, many scholars would argue that it is socioeconomic factors and inequities that first fuel insecurity and conflict between different groups of people, and not cultural differences or transnational actors and trends. Additionally, inequities will often be exacerbated by the lack of good governance, especially when accompanied by corruption. These failures may all be important

factors in enabling criminality, extremism and even terrorism to grow, whether domestic in nature or transnational in scope.

It is no accident that the United Nations' authoritative *Human Development Report 2011* is subtitled *Sustainability and Equity: A Better Future for All*.³⁰ There is strong and growing worldwide consensus that environmental sustainability, development and climate change are real and will have profound effects

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²⁷ As an example, in *Radical Islam in East Africa* (Santa Monica, CA: RAND, 2009), Angel Rabasa analyzes “the complex ethno-religious landscape in East Africa...that have produced failed or weak states susceptible to exploitation by extremist groups...Building sustained national resilience that is intolerant of terrorists and extremists...can only be accomplished by linking hard security initiatives with a broader array of policies designed to promote political, social, and economic stability.” Cited from overview of book at RAND website, at <http://www.rand.org/pubs/monographs/MG782/>.

²⁸ The Human Development Index can be accessed online through the United Nations Development Program website at <http://hdr.undp.org/en/statistics/>.

²⁹ Mary Kaldor, *New and Old Wars: Organized Violence in a Globalized Era* (Stanford, CA: Stanford University Press, 2001).

³⁰ United Nations Development Programme, *Human Development Report 2011; Sustainability and Equity: A Better Future for All* (New York: Palgrave Macmillan for the United Nations Development Programme, 2011).

on everyone's security. According to the UN Intergovernmental Panel on Climate Change's conclusions in 2009, "by the end of the century, sea levels may rise twice as much as was predicted two years ago... [which] means that the lives of some 600 million people living on low-lying islands, as well as those living in Southeast Asia's populous delta areas, will be put at serious risk..."³¹ While there are climate change skeptics, the implications of relocating literally millions of human beings in areas threatened by rising waters are staggering, and people are already relocating internally from low-lying areas in Bangladesh and the Philippines. For some island countries, like Kiribati and Maldives, abandoning low-lying areas is not an option as their entire countries may become uninhabitable.

Clearly eco-migration is a growing trend, one triggered not only by rising seas but also by desertification and a lack of fresh water in areas like the African Sahel region bordering the Sahara in North Africa.³² While the United States may have the resources to at least mitigate the these types of climate changes effects in the future, developing countries and their populations will be most at

risk as they lack adequate resources. Climate change will weaken already feeble states, contributing further to regional and global insecurity. And as populations are further stressed, the potential for instability, conflict, and even resource wars grows, especially where traditional societies may be prone to clash with Western modes of development and modernity.

In terms of health issues, the 2009-10 H1N1 influenza pandemic made clear that disease knows no boundaries, and that the United States is equally vulnerable to chronic and infectious diseases prevalent in many parts of the world. These include HIV/AIDS, malaria, hepatitis, tuberculosis, highly publicized Ebola hemorrhagic fever, and influenza. On average, three pandemics per century have been documented since the 16th century, occurring at intervals of 10–50 years. If an influenza pandemic virus were to appear similar to the one that struck in 1918 (killing an estimated 40 million people), there will be serious consequences for international security. Air travel and international commerce would stop. Disease outbreaks could trigger massive human migrations, disrupting social order within countries and across regions of the world.

Yet, in spite of this often daunting continuum of human security

“Climate change will weaken already feeble states, contributing further to regional and global insecurity. And as populations are further stressed, the potential for instability, conflict, and even resource wars grows...”

³¹ Jean-Marie Macabrey, "Researchers: Sea Levels May Rise Faster than Expected," *The New York Times*, March 11, 2009.

³² Shankar Vedantam, "Climate Fears Are Driving 'Ecomigration' Across Globe," *The Washington Post*, February 23, 2009, A01.

challenges, it is heartening to note a greater understanding of these perils in many countries. As discussed above, US foreign policy seems increasingly cognizant of the seriousness of human security challenges and is more effectively targeting aid and cooperation with other governments and nongovernmental groups. In fact, both the US State Department and the US Defense Department have consciously attempted to integrate their efforts in a partnership, premised on improving national—and to some extent human—security in all its multifaceted aspects. This was illustrated most graphically in early 2011 when, for the first time, officials for both the Departments of Defense and State testified together to the US Congress about their budgets. Deputy Defense Secretary William J. Lynn III emphasized the importance of funding and promoting security and responsible governance to forestall direct US military interventions. Furthermore, he told the US Senate’s Budget Committee:

For fiscal 2012, we’re also requesting a new, path-breaking program which would involve pooled funding, where State and DOD officials would contribute to a fund where we would seek to anticipate security issues wherever they are in Africa, Latin America (or) Asia, and to jointly target assistance for development funding for economic assistance and security assistance in an integrated way in an effort to anticipate growing crises and reduce them before they get started...”³³

“While foreign aid and assistance are always a tempting target for policymakers, this time it is very probable that even the US military’s highly-regarded security assistance programs aimed at bolstering the security capacity of many developing countries will be reduced.”

Unfortunately, while this approach is a step in the right direction, it may still be too state and government-centric. Ultimately, any plan to advance human security on a global level must equally account for the transnational actors and forces that are shaping the international community, for better or worse. Equally unfortunately, it seems clear that both the US State Department’s budget and the Defense Department’s budget will inevitably suffer cuts considering the precarious situation of the US economy and its budgetary concerns. While foreign aid and assistance are always a tempting target for policymakers, this time it is very probable that even the US military’s highly-regarded security assistance programs aimed at bolstering the security capacity of many developing countries will be reduced.³⁴

³³ Jim Garamone, “DOD, State Department Officials Present Budgets to Senate,” American Forces Press Service, March 10, 2011. Accessed at: <http://www.af.mil/news/story.asp?id=123246203>.

³⁴ This section is based on our latest book, *Human Security in a Borderless World* (Boulder, CO: Westview Press, 2011).

V. CONCLUSION

In both US academic and policy communities there remains a bias toward great powers, big wars, and issues like nuclear proliferation. Worst-case scenarios guide planning, with many realist and neorealist adherents still believing that only nation-states, especially major states with large militaries and nuclear arsenals, are the proper focus for national security concerns. Non-state actors are viewed as a nuisance, regardless of whether they are terrorists, pirates, or other illegally armed groups. Transnational crime and pandemic influenza may need attention, but not under the rubric of national security. This bias toward major powers was demonstrated very clearly in the Obama Administration's recent explicit policy shifts to limit stability operations and reorient US national security toward Asia, and especially China.

Perhaps this kind of logic made more sense during the Cold War, when Soviet and US foreign policies under the shadow of nuclear exchange kept both countries on the verge of World War III, with China as a wild card in play between the two major adversaries.

“Blindfolding ourselves to this increasingly complicated and ambiguous contemporary world will only delay our ability to address security issues of immediate import for US security and prosperity, especially in the forthcoming era of austere budgets.”

But now, having commemorated the 20-year anniversary of Soviet collapse in 2011 and as we rely on China as a key economic partner, we need to move beyond that great powers scenario to fully understand the new (albeit over 20 years old!) security environment. Blindfolding ourselves to this increasingly complicated and ambiguous contemporary world will only delay our ability to address security issues of immediate import for US security and prosperity, especially in the forthcoming era of austere budgets. As Cynthia Enloe has argued, “how one thinks about national security not only affects global relations but determines who is even allowed to sit at the table to take part in the security conversation.”³⁵

An alternative, productive approach to thinking about national security is encapsulated in the concept of human security, as amorphous as that concept might seem at times.³⁶ As Sadaka Ogata phrased it so eloquently, “if security is to be protected, conflict prevented, human rights respected and poverty eradicated, we require urgently a new consensus on security. This is a shared responsibility. Human security provides an impetus for all countries, whether developed or developing, to review existing security, economic,

³⁵ Cynthia Enloe, *Globalization and Militarism: Feminists Make the Link* (Lanham, MD: Rowman & Littlefield Publishers, 2007), 40.

³⁶ In this regard see Roland Paris, who has argued that “human security is so vague that it verges on meaninglessness—and consequently offers little practical guidance...” In “Human Security: Paradigm Shift or Hot Air?” *International Security* 26, no. 2 (2001): 102.

development and social policies. Creating genuine respect for people's safety, livelihood and dignity should be the overall objective of these policies.³⁷ Instead of protecting against the most catastrophic possibilities (great power war and nuclear attack), we think it is important to consider the most likely challenges, often posed by non-state actors and transnational concerns. We must educate ourselves about the many issues that have often been decades in the making, and are now demonstrating their capability to threaten all human beings. These include issues such as environmental sustainability, pandemic diseases, endemic poverty, weak and failing states, transnational narcotics trafficking, and criminal gangs. Engaging in critical thinking now will enable governments, militaries, and citizens to better provide for national and international security, while improving good governance and social and economic prosperity for all.

“Engaging in critical thinking now will enable governments, militaries, and citizens to better provide for national and international security, while improving good governance and social and economic prosperity for all.”

³⁷ Ogata, 2.

CRISIS COMMUNICATION: The Role of Public Perception of Crises

By Weimin Mou and Richard Harris

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The current scholarship on crisis management and communication practice emphasizes the governmental actor and ignores the role of public perception in a crisis situation. How successful crisis management can be is determined, in part, by how the public perceives the crisis at hand. In short, two-way communication between the government and the public provides the most fruitful environment for successful crisis management.

Each individual understands a crisis through subjective judgment and experience. Factors that affect how an individual perceives a crisis include individual characteristics, type of crisis, representation in media, role of government actors, and support from civic society or the community, among others. In this policy spotlight, the present effort expands on the different factors that affect perception of crises and informally offers some suggestions for further action.

I. INDIVIDUAL CHARACTERISTICS AND PUBLIC PERCEPTION OF CRISES

In a crisis situation, individuals suffer not only physical losses but also psychological stress. Psychological stress affects people differently. The impact of a crisis is not homogenous across groups. Individuals with less economic or political strength, or those who are older, will be most affected by the psychological stress of a crisis. This group is also disproportionately affected by the physical losses of a crisis, as they usually have less access to public resources. These effects are endogenous in that those affected most by a crisis in terms of physical loss will likely be affected psychologically to a greater extent as well.

Research suggests the following characteristics play an important role during a crisis situation: age, gender, psychological background and extent of background knowledge.

Age

During a crisis, people of different ages are likely to react differently. Younger adults tend to underestimate the effect of a crisis, while more mature adults are able to better judge the potential impact of a crisis, and, thus, may have a more negative response.

Some age groups in particular are at higher risk during a crisis. The elderly, specifically those in poor health, are vulnerable during a crisis situation and, in addition, are often reluctant to seek help. Feelings of depression and hopelessness are typical post-disaster responses for this group, and some elderly, particularly those that are physically weak, lack interest in rebuilding their lives.

Children are another group at higher risk. Lacking, in most cases, the ability to comprehend the crisis situation, many children develop emotional or behavioral problems after a disaster. In addition, many children may remain afraid after the crisis has passed, and show psychological distress, including sleep disorders and lack of interest in school.

Gender

Gender influences how an individual responds to social expectations, which are in turn driven by gender itself. Gender can play a role, then, in how an individual responds to a crisis situation. One example includes the response to SARS in the early 2000s. The Chinese University of Hong Kong published their findings of a survey in mid-2003. Researchers found that roughly 20 percent of respondents affected by SARS suffered from symptoms such as irritability and headaches, 70 percent of whom were women. Cheng Lee, Director of the Mood Disorders Center at the Faculty of Medicine suggested that this finding may be due to higher worries about hygiene and

“These effects are endogenous in that those affected most by a crisis in terms of physical loss will likely be affected psychologically to a greater extent as well.”

family infection that women may hold (Xinhua 2010).

Psychological Background

Crises affect people of different psychological backgrounds differently as well. When faced with a crisis, people with better psyches (for lack of a better word) may still experience fear, but are able to act despite that fear. Others may be stunned by the upcoming crisis, act irrationally, or misjudge the scale of the crisis.

There are two qualities that influence how an individual reacts to a crisis: how much self-control they have and how secure they feel in general. Those with higher self-control are less likely to panic during a crisis. In addition, those who have a stronger sense of security react better during a crisis. Different events in one's life affect how secure one feels in general, which plays a role in how secure one feels in a crisis situation.

Background Knowledge

Generally, those with more background knowledge respond to a crisis more objectively. As groups in society gain more knowledge about a crisis situation, they are more likely to act rationally with regard to risk. Specifically and unsurprisingly, those who engage professionally or otherwise in fields related to crisis management are the most likely to respond to a crisis situation effectively (Xie and Zheng 2003).

In a study of the effect of SARS on anxiety at work and home, researchers surveyed college students

at the Medical Department of Peking University and other students across Beijing. Researchers found that the biggest difference in levels of anxiety and rational behavior are between those with medical knowledge and those without. In short, a medical background helped students comprehend information about SARS effectively, which, in turn, lowered anxiety and changed behaviors (Xie 2010).

“Researchers found that roughly 20 percent of respondents affected by SARS suffered from symptoms such as irritability and headaches, 70 percent of whom were women.”

Implications

As crises affect different groups of people differently, government officials and other actors should realize that communication during a crisis needs to be tailored to different groups to have the greatest effect. Some groups, such as the elderly, very young, or those with little background knowledge, need a different style and substance of communication than other groups. Communication during a crisis is not a one size fits all proposition; crisis managers need to recognize the differences of how a crisis will be perceived and tailor their strategies as necessary.

II. PERCEPTION OF CRISES IN DIFFERENT CONTEXTS

Public perception of crises varies among different groups because of individual characteristics, natural or acquired. Public perception of crises, and hence the effect of crisis communication, also varies in accordance with some contextual factors, which often relate to the status of the relationship between the public and actors, and the characteristics of a crisis itself.

Degree of Trust Towards Actors

A key principle of crisis communication is trust. As trust in the government or other actors increases, fear of an upcoming crisis likely decreases. The reverse also holds: those who have little to no trust in government or other official actors will likely be more fearful of a given crisis.

One clear example of how lack of trust in actors exacerbated a crisis is the case of water contamination after explosions at chemical plants in Harbin, China in 2005. An explosion

at a chemical plant contaminated the water supply of the north-eastern Chinese city of Harbin and endangered millions of people in the city. The Harbin municipal government issued three announcements one after another, with the second and third announcements contradicting the first. In the first announcements during the crisis, the local government lied and announced that water supplies would be cut off for 4 days due to “maintenance.”

Many citizens did not trust such a vague statement. Citizens began to purchase bottled water and other supplies in bulk as well as fleeing Harbin in panic. As the government began to release statements explaining the truth of the situation, as well as preparing other emergency measures, trust between the public and government began to grow and general fear fell (Xinhua 2005).

Mayor Rudy Guiliani’s performance during 9/11 is an example of how trust in government actors can mitigate a crisis situation. During press conferences, Mayor Guiliani arranged for experts to be present to disseminate information instead of doing so himself. When it came to political matters or leadership, Mayor Guiliani skillfully used his role as Mayor to relieve public anxiety, but left matters requiring detailed knowledge to relevant experts. When faced with questions that had no clear answers, he admitted his ignorance instead of providing information that might have turned out to be false later (Guiliani 2010).

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Certainty of Crisis

As people grow less and less certain of a crisis (or some aspect thereof), the fear of what it might mean grows. Two examples include AIDS and typhoons or hurricanes. Though AIDS lacks an effective cure today, many people are aware of its transmission and cause, leading to a generally reduced fear of AIDS. The situation is similar for the approach of a typhoon or hurricane; though it's impossible to prevent a hurricane from affecting a certain area, weather forecasters often know its likely path and strength. Society is generally able to plan appropriately. Appropriate and accurate information makes aspects of a crisis situation concrete, which in turn lowers public fear.

However, if the crisis (or certain aspects of it) is uncertain, fear tends to increase. If information is hard to come by or lacks authenticity, society will seek out any information it can, even if it's only rumor. Rumors tend to be unofficial and unproven interpretations of the events at hand transmitted through both public and non-public channels (Lin and Li 2003). Government actors may not reveal the truth as they may not know it or in an effort to avoid damaging their own reputation. Without accurate information, it is difficult to make correct judgments. The public will tend to overreact, not only because they are responding to incomplete information but also because the information itself is uncertain. Rumors lack the authenticity that government communication might have.

One example can be found during the large scale SARS epidemic in Guangzhou, China, among other places, during 2003. Mass media avoided the topic, leading to an information vacuum. Unofficial channels of communication took hold, and rumors spread throughout text message, the Internet, and word of mouth. Information, many of it from unidentified sources, was replicated constantly via text message, which eventually formed a largely avoidable panic (Qin 2008).

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Distance to Crisis

People have less fear of a crisis that will not affect them. Generally, it is only once someone is directly affected by the crisis that will they realize the danger to themselves or their property.

One brief example can be found in the SARS epidemic above. When the virus had not spread to Chongqing, for example, people failed to properly prepare for the virus, as they only feared that that the virus might be brought in from outside areas. Once cases were found in the area, however, people began to take direct action to prevent the spread of the disease (Qin 2008).

III. THE EFFECT OF UNDER- OR OVERREACTION TO CRISIS

Depending on how the public perceives a crisis, two results are likely: under-reaction and overreaction. There are degrees of reaction, however: people may overreact a little or quite a lot. The impact of the crisis often extends past its direct losses. One can imagine a crisis as a rock dropped into calm water; the event itself creates ripples that continue to disturb the water.¹ In general, if the public overreacts to a crisis, there is larger chance of harm to both themselves and to society at large. However, if the public under-reacts to a crisis, they will likely be unprepared in the event they are actually hit by the crisis, thereby increasing the amount of harm past what would be expected (Zou and Peng 2009).

Under-reaction

Generally, under-reaction is a social phenomenon—dismissing the potential danger of the crisis begets further dismissal. Under-reaction to a crisis usually involves the following: paying little to no attention to the

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crisis, acting without preparation, or taking no action (or acting passively) before or during the crisis situation.

Why do people under-react? First, people under-react because they lack information about the crisis. Sometimes this is for relatively benign reasons: the message may not be accessible in rural or remote areas (by lack of radio, Internet, or electricity), or media and government actors themselves may underestimate the severity of the crisis and not give it the proper attention. However, media and the government may also be afraid of damage to their own reputation and understate (or in some cases, not broadcast whatsoever) any information about the crisis. Additionally, many groups in society may care little about the crisis to begin with and simply ignore the situation (Qin 2008).

Secondly, people may under-react because the information they have is (or is viewed to be) irrelevant or inaccurate. If leaders in society are viewed as paying little to no attention to a developing situation, the public will pay little attention as well. Also, society may not know that the crisis is important. Attention in general is limited, so putting the information out in the public domain is often not enough to inform decision

¹ This is in fact Paul Slovic’s ripple theory—the size of the ripples depend on the nature of the risk itself, how the public obtains relevant information, and how the public interprets that information. The damage directly caused by a crisis situation might be relatively small, but if the public greatly overreacts, the secondary effects (i.e., large ripples) might cause much more damage than there would be otherwise.

making by the public. The crisis needs to be publicized so that the public understands the gravity of the situation. Even if the information is understood to be important, providing inaccurate or incomplete information may lessen its effects, leading to under-reaction. Finally, the amount of information is key as well: too much information on the crisis, especially from multiple sources, may leave people at a loss for what appropriate actions to take.

Overreaction

Overreaction leads to other unwanted results. During the 2003 SARS outbreak, some people reacted by washing their hands or sterilizing themselves countless times a day to prevent infection. For some, this overuse of sterilizing products resulted in damage to their respiratory systems (Gu 2003).

Overreaction leads to individual and group effects. Over-preparation for a crisis might cause longer and deeper stress for individuals, heightening the risk for protracted health conditions. In a group setting, overreaction tends to lead to panic situations, which increases strain on social institutions. For example, false earthquake predictions in China have led to lowered deposits and increased withdrawals from banks as well as increased participation in life insurance plans (Zhang 1996). This is outside of the effects on commerce, the service industry, etc., where a panic situation and over-preparation for crisis situations may hamper crisis prevention and management, lower

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supplies available to individuals and families, and create new sources of stress and panic for the community (Yang 2003).

There are two main reasons for overreaction. The first comes from the nature of the crisis itself; the sudden and large change in the environment causes fear, which is reflected and enhanced by the society as people imagine worst-case scenarios. A crisis scenario leads people to be concerned about themselves and their kin to the exclusion of others in the society as well, leading to overreaction in preparing for oneself when as a whole, society may already be adequately prepared (Qin 2008).

Implications

When publics under-react or overreact to a crisis, it can be for a number of reasons. Some may be mitigated and some may be natural. These reactions may be harmful and may cause damage outside of the effects of the crisis situation itself. Crisis managers should work to develop an objective and rational view of the crisis in the public as much as possible.

IV. POLICY IMPLICATIONS AND RECOMMENDATIONS

There are four takeaways to consider in crisis management and public perception.

1. Consider the public when providing information about the crisis. Different groups have different needs and will comprehend the crisis in different fashions. Communication should be tailored to specific groups to help people make rational decisions about their actions.
2. When possible, use two-way communication methods between crisis managers and the public. Not only does this ensure that the public has accurately comprehended the scale and effects of the crisis, but it also prevents inaccurate information from spreading.
3. During a crisis different groups will be affected in different ways by the crisis. While communication needs to be tailored to these groups as mentioned above, management policies need to follow suit as well.

4. Different stages of the crisis also require different approaches in communication (Zhang 2006). In the lead-up to the crisis, managers should focus on educating the public with background knowledge of the crisis to help them prepare for the event. As the crisis strikes, the message should switch to current and accurate information about the crisis, while keeping the points outlined above in mind.

Public perception of and response to a crisis have great implications for the success of crisis management. Government actors and crisis managers should consider different methods of communication in crisis situation to approach different groups, which will lead to better results.

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V. REFERENCES

- Giuliani, Rudolf. "When I was the Mayor of New York on September 11." *Sino Times*. Accessed May 23, 2010. <http://www.sinotimes.com/298/niuyue911.htm>.
- Gu, Haibing. "Rethinking about the SARS epidemic (Part one): the strategic role of social sciences in the process of prevention and control of SARS need to be highly evaluated." *Beijing Army Think Tank, Economic Advisory Co., Ltd.* Last modified May 12, 2003. <http://www.dajunzk.com/feidian7.htm>.
- Li, Feng, and Huan Lin. "Dealing with Rumors for Enterprise: A Special Crisis PR." *Journal of World of PR* 4 (2003).
- Qin, Qiwen. *Prevention and Response to Emergencies*. Beijing: Xinhua Press, 2008.
- Wu, Menghuan, and Xu, Beilei. "Study on Society's Psychology of Earthquake and Coping Strategies of Government." *Journal of Earthquake in Shanxi* 3 (1994): 42-48.
- Xie, Xiaofei, and Zheng, Rui. "Risk Communication and Rationality of the Public." *Journal of Advances in the Science of Psychology* 4 (2003): 376.
- Xie, Xiaofei. (2003) "When Disaster Strikes, Where Comes the Rationality of the Public?" *SOHU.com*. Last modified June 12, 2003. <http://news.sohu.com/12/44/news210044412.shtml>.
- Xinhua News Agency (a). (2003) "A Survey in Hong Kong Indicates that the SARS Epidemic Influenced More on Female's Emotion." *pdsdaily.com*. Last modified May 19, 2003. http://www.pdsxww.com/jkhg/content/2003-05/19/content_111806.htm.
- Xinhua News Agency (b). "The Harbin water crisis: the power of truth." *People*. Last modified November 29, 2005. <http://www.people.com.cn/GB/news/37454/37459/3899116.html>.
- Yang, Xiaodong. (2004) "Principles of Psychological Regulation After Disasters." Accessed May 28, 2010. <http://www.21jk.com.cn/hyjt/articlecontent.asp?channelId=75&articleId=18875>.
- Zhang, Ning. "Public Cognition: Perspective of Public Crisis Information Diffusion." *Journal of Thinking* 6 (2006):27.
- Zhang, Zhiguang. *Social Psychology*. Beijing: People's Education Press. 1996.
- Zou, Beibei, and Zongchao Peng. "Investigation of the Public's Perception of the Big Flu." Last modified May 7, 2009. <http://theory.people.com.cn/GB/49154/49156/9255652.html>



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